



VEET Performance Report 2017

Victorian Energy Efficiency Target scheme

September 2018



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Summary

The Essential Services Commission administers the Victorian Energy Efficiency Target Act 2007 (the Act) and regulates the creation of certificates by participants in the Victorian Energy Efficiency Target (VEET) scheme. The scheme started in 2009 and is currently publicly promoted as the Victorian Government's Victorian Energy Upgrades (VEU) program, designed by the Department of Environment, Land, Water and Planning (DELWP).

The scheme aims to reduce greenhouse gas emissions by making energy efficiency improvements more affordable for consumers, and reduce their long term energy consumption.

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

Under the scheme, relevant entities are required to surrender Victorian energy efficiency certificates (certificates). Each certificate represents one tonne of carbon dioxide equivalent (Co₂-e) abated by the energy saving activities.

For the 2017 compliance year, 26 out of 28 relevant entities surrendered sufficient certificates to meet their individual liabilities. The liability of a relevant entity is calculated by multiplying the greenhouse gas reduction rates¹ with their actual scheme acquisitions² for the year. We have subsequently enforced the corresponding penalties under the Act.

Scheme performance overview

The scheme enabled over 109,207 installations across residences and businesses and across metropolitan and regional areas of Victoria during 2017 resulting in the creation of 8.5 million certificates during the year (exceeding the required target of 5.9 million certificates). This gave certainty to relevant entities that certificates would be available to meet their annual liabilities under the scheme.

Over 50 million certificates have been created since the start of the scheme in January 2009.

The market continued to evolve, with an increased uptake of lighting upgrade activities for businesses, which accounted for 88 per cent of certificates across the year, and as much as 92 per cent during September and November 2017. Residential lighting upgrades remained the largest activity in absolute installation numbers, with replacement of electric resistance water heaters and space heating activities established as the highest uptake regional-based activities.

The scheme has expanded with the addition of project-based activities. Since their introduction in June 2017 and until 31 December 2017, we accredited five companies to undertake these new project-based activities, appointed two third party experts and conditionally approved two projects.

Table 1 outlines the key scheme performance measures for 2017.

¹ Greenhouse gas reduction rates are set annually under the Act by the Governor in Council, on the recommendation of the Minister and by Order published in the Government Gazette based on projected estimates of scheme acquisitions for the 2017 year.

² Scheme acquisitions are the purchase of electricity or gas (or both) by a relevant entity for on-sale to Victorian consumers within the provisions of the Act.

Table 1: Key scheme performance measures - 2017

Activity	2017
Certificates created by accredited persons	8,531,906
Certificates registered by the commission	7,910,349
Certificates surrendered by relevant entities	5,836,677
Certificates surrendered by accredited persons	16,823
Certificates withdrawn by accredited persons	796,103*
VEET accounts created (scheme total of 1,836 accounts)	58
Accredited persons approved (scheme total of 207 persons)	7
Energy saving products approved (scheme total of 11,469 products)	2,194

* The majority of these certificates were resubmitted and registered at a later date during 2017 after our evidence and data requests during pre-registration checks were satisfied. More detail in section 2.1.

In 2017 we:

- registered 90 per cent of created energy efficiency certificates within two days of the target timeframe
- assessed 100 per cent of accreditation applications within the required legislative timeframe
- responded to 90 per cent of the 3,673 stakeholder queries received within our target response time
- approved applications for new project-based activities significantly under the legislated timeframes.

During the 2017 calendar year, seven additional businesses became accredited and 2,194 new products were approved.

Safeguarding scheme integrity in 2017

During 2017, we continued to undertake an effective and integrated risk-based compliance and validation program, before and after certificate creation and registration.

Our efforts to build system-wide compliance levels include:

- participant accreditation
- participant audits
- certificate registration audits
- product registration
- conditional project approvals
- third-party verification of project impacts.

We addressed specific compliance issues using targeted investigations, field audits and independent product testing.

During the year, we undertook 227 field audits, 202 desktop audits and 294 phone audits.

We also audited eight of the top ten most active certificate creators responsible for 51 per cent of certificates created during the year. We review the robustness of their systems and processes to ensure their certificate creation claims are accurate.

Our risk-based validation checks before certificate registration identified 3,764 potential compliance issues and contributed to the temporary withdrawal of nine per cent of the certificates created during the year.

Our regulatory compliance activities have led to the permanent surrender or withdrawal of more than 90,000 certificates by certificate creators and pursuant to Section 40A of the Act we invoked a warning on an accredited person.

In addition, the integrated program resulted in two relevant entities being subject to shortfall penalties due to a shortfall in their obligatory surrender.

These validation and compliance activities give confidence that the certificates traded under the scheme genuinely reflect actual energy savings that benefit energy consumers and have been obtained in compliance with regulatory requirements.

Our compliance and validation work in 2017 included:

- seven pre-accreditation and 18 additional activity approval audit meetings
- follow up on 3,484 activities where we identified a potential compliance issue during the certificate registration process (some activities had more than one issue identified)
- twenty-three pre-registration investigations
- 202 desktop audits and 227 field audits completed
- 18 detailed audits of accredited persons to assess the effectiveness of their processes and controls that resulted in almost 17,000 certificates voluntarily surrendered
- one audit investigation of an accredited person and withdrawal of over 62,000 certificates.

Continuous improvement and engagement activities

Our efforts are directed to ensure that the right regulatory and administrative frameworks, and supporting IT systems, are in place to underpin the scheme's expansion. The outcomes of 2017 demonstrate that we actively engaged participants in the continuous improvement of the regulatory framework to achieve a balanced, transparent and efficient framework.

We updated our framework to reflect:

- the introduction of project-based activities (PBAs)
- regulatory amendments relating to scheduled activity premises
- regulatory amendments to weather sealing activities and high efficiency TV activities.

In implementing new regulations for PBAs, we held five individual workshops with accredited businesses that wanted to create certificates under those regulations to ensure they had a thorough understanding of their roles and requirements.

We formally consulted with industry and delivered on initiatives that provide greater transparency and certainty to scheme participants, such as our VEET compliance and enforcement policy.

We held two public forums with stakeholders in April and October where we discussed the implementation of project-based activities regulations, introduction of opt-in for large energy users (scheduled activity premises), consultation on ceiling insulation, weather sealing and changes to non-building based lighting upgrade activities.

We also took steps to seek anonymous feedback on our performance as a whole, as part of the commission's reputational survey, but more specifically from stakeholders interacting with our

certificate registration process. The feedback received was positive and we used industry feedback to streamline the certificate registration process.

In the products area, we implemented improvements to our product approval process, and continued our ongoing program of independent safety and performance testing of products.

Our work program was supported by changes to the IT system to facilitate the integration of new activity requirements and a better website experience for commission staff and VEET account holders. During the year, we implemented more than 70 system changes to improve system performance and usability.

The collective efforts of all parties led to the Victorian Energy Upgrades program winning the best energy saving program at the Energy Efficiency Council's national energy efficiency awards in November 2017.

About this report

This performance report details our regulatory and administrative actions under the Victorian Energy Efficiency Target (VEET) Act 2009 (the Act) for the 2017 reporting year. The Act established the creation of the VEET scheme (the scheme) and charged us with its implementation from 1 January 2009.

The Department of Environment, Land, Water and Planning (DELWP) is responsible for the design of the scheme, rebranded as Victorian Energy Upgrades during the year. This is the ninth annual performance report that we have published.

The scheme's purpose is to promote the reduction of greenhouse gas emissions by encouraging efficient use of electricity and gas in the residential and non-residential sectors. It was established as a market-based economic mechanism designed to encourage households and businesses to install energy efficiency upgrades by enabling those upgrades to be more affordable.

Greater affordability in turn fosters investment, employment and technological progress in industries that supply goods and services which reduce energy consumption, with wider flow on energy and economic resilience benefits.

The scheme sets an annual target of greenhouse gas abatement, and places an obligation on Victorian energy retailers to surrender a certain number of Victorian energy efficiency certificates.

One certificate equals one tonne of greenhouse gas abatement. These certificates are created by businesses that we accredit to complete energy efficiency activities in Victorian residential and non-residential premises.

The types of activities and their requirements are outlined in the schedules of the Victorian Energy Efficiency Target Regulations 2008 (Principal Regulations)³ and the Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017 (PBA Regulations). Once created and registered, certificates can be traded and sold by VEET account holders on an open market.

Further information on the VEET scheme can be found in appendix A.

This report provides information on the following aspects of the scheme for the 2017 reporting year:

- our assessment of applications for new accounts and accreditation applications
- our assessment of the creation of Victorian energy efficiency certificates
- our findings on the compliance of accredited persons and relevant entities with scheme requirements, and product approval submissions from product applicants
- other key work activities and projects we delivered during 2017 to strengthen and manage the scheme through its expansion.

This report provides information required under section 67 of the Act and is published in accordance with section 7(3) of the Act. Table 2 sets out the information the commission must publish under section 67 of the Act.

³ This report refers to the activities by their schedule number as listed in the Principal Regulations. This is how activities are commonly referred to by scheme participants and stakeholders.

Table 2: Information required to be published for the 2017 year

Information to be published	Measure
Relevant entities that had an energy efficiency certificate shortfall	2
Amount of each relevant entity's energy efficiency certificate shortfalls	
<i>AGL Sales Pty Ltd shortfall quantity</i>	28,144
<i>AGL Sales (Queensland Electricity) Pty Ltd shortfall quantity</i>	35,889
Total of energy efficiency certificate shortfalls	64,033
Certificates created in 2017 (1 January to 31 December)	8,531,906
Certificates surrendered by relevant entities for the 2017 compliance year	5,836,677
Certificates surrendered by accredited persons in 2017 (1 January to 31 December)	16,823

Sources

Unless indicated otherwise, all graphs and tables have been produced by the Essential Services Commission using data based on the 2017 calendar year.

1. Our participants

At a glance: There has been a steady increase in new VEET accounts and accredited persons approved for 2017.

We evaluate and approve applications for new VEET accounts and ‘accredited persons’ that allow participation in the VEET scheme. VEET account holders are entitled to own, trade and surrender certificates, whereas only ‘accredited persons’⁴ are able to create certificates. To apply to be an accredited person, the applicant must hold a VEET account.

In 2017, 58 new accounts were created and we approved seven accredited person applications. Table 3 shows the number of accounts and accredited persons approved in 2017 and the total number of accounts and accredited persons approved since 2009.

Table 3: Scheme accounts and accreditations

Accounts and accreditations	2017	Total (2009 – 2017)
Accounts created	58	1,836
Accredited persons approved	7	207

Figure 1 shows the progression by year in the number of VEET accounts since 2009.

Figure 1: Number of VEET accounts by year - 2009 to 2017

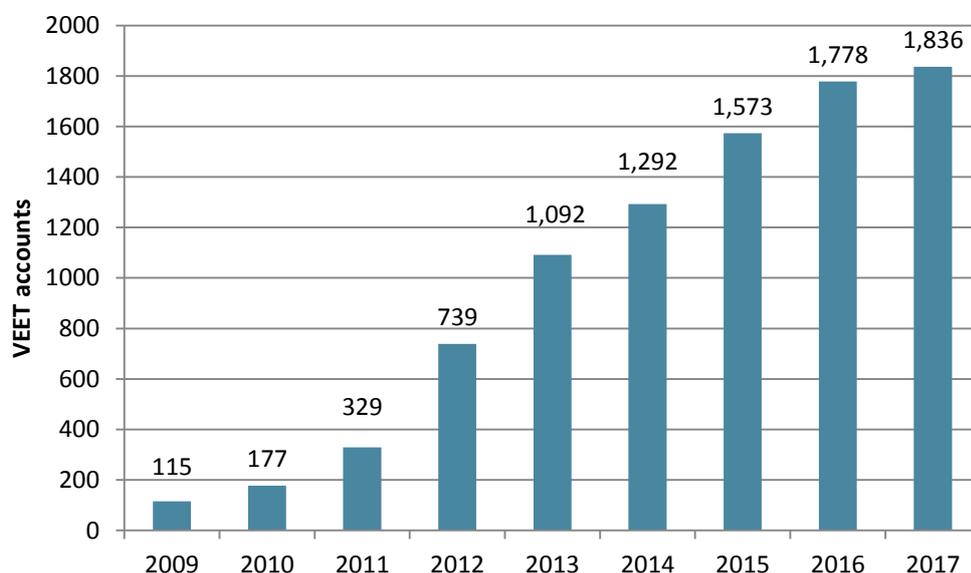
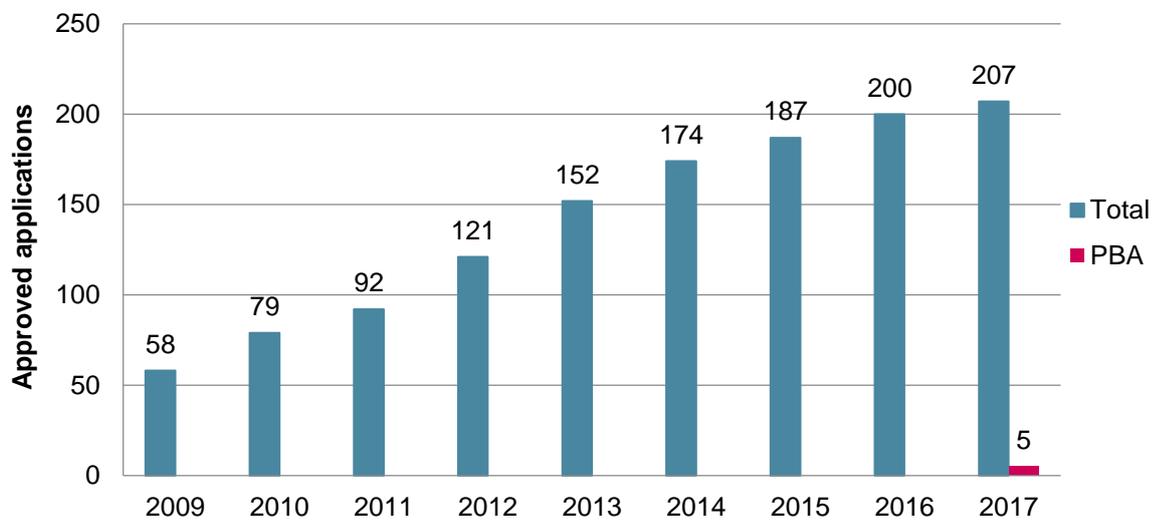


Figure 2 shows the progression by year in the number of accredited persons since 2009. There has been a steady increase in the number of accredited persons from year to year. As at the end of 2017, we had approved 207 accredited person applications. During the scheme’s operation, two

⁴ This is the term used by the Act to describe a person or person accredited to operate in the scheme.

accreditations have been revoked by the commission and three cancelled by the accredited person.

Figure 2: Number of accredited persons by year - 2009 to 2017



The trends indicate the scheme has reached maturity in terms of a healthy and steady number of potential creators, purchasers and buyers of certificates in the certificate market.

The scheme has expanded with the addition of project-based activities. Since their introduction in June 2017 and until 31 December 2017, we accredited five companies to undertake this new methodology and appointed two third party validation experts.

2. Certificates in 2017

2.1. Certificate transactions during the year

At a glance: The certificates created in 2017 substantially exceeded the scheme target.

Accredited persons can create certificates by completing installations for consumers (residential and non-residential) of energy efficient products that we have registered. These are known as 'prescribed activities'. These installations must be completed in accordance with the Principal Regulations and the guidelines. We are responsible for ensuring that all relevant statutory requirements are met and that certificates created are eligible for registration.

Table 4 provides the number of certificates created, registered, withdrawn, refused and surrendered in 2017, and since the scheme started in 2009.

Table 4: Certificates created, registered, withdrawn and surrendered

Certificate transactions in 2017	2017	Total (2009 – 2017)
Certificates created	8,531,906	50,177,596
Certificates withdrawn by accredited persons	796,103	3,487,696
Certificates registered	7,910,349	45,364,956
Certificates refused registration	0	117,355
Certificates surrendered by relevant entities	5,836,677	41,109,524
Certificates surrendered by accredited persons	16,823	221,367

Once created, we assess certificates before they are registered and available for trade. We take a risk-based approach and check batches of a maximum of 10,000 certificates each. An accredited person may choose to withdraw the creation of certificates from a given installation if, after our checks, they are not able to provide evidence that the installation occurred as claimed.

In 2017, these pre-registration checks identified 3,764 potential compliance issues on 3,484 activities that led to the temporary withdrawal of 796,103 certificates. A high proportion of these certificates (approximately 66%) were resubmitted and registered at a later date during the 2017 year after the accredited person supplied the required evidence and data.

Once we are satisfied we have received all the relevant information, we register certificates. In 2017, we registered over 7.9 million certificates that could then be traded on the certificate market. We may refuse certificate registration if we establish that a certificate has not been created correctly.

Registered certificates are subject to obligatory surrender by relevant entities, or voluntary or mandatory surrender by accredited persons⁵. Any certificate surrendered cannot be traded again.

⁵ Relevant entities make an obligatory surrender to acquit their liability under the scheme (section 33 of the Act). Accredited persons make a mandatory surrender in line with a commission enforcement action under sections 38, 39

Relevant entities are required to surrender certificates in accordance with the liability calculations prescribed by the Act to meet the scheme target. The number of certificates a relevant entity must surrender is based on their scheme acquisitions for the year.

Table 5 shows how many certificates were created for the 12 months from 31 January 2017 to 30 January 2018. Section 34 of the Act allows relevant entities to surrender certificates that have been created before 31 January 2018 in respect of the 2017 compliance year.

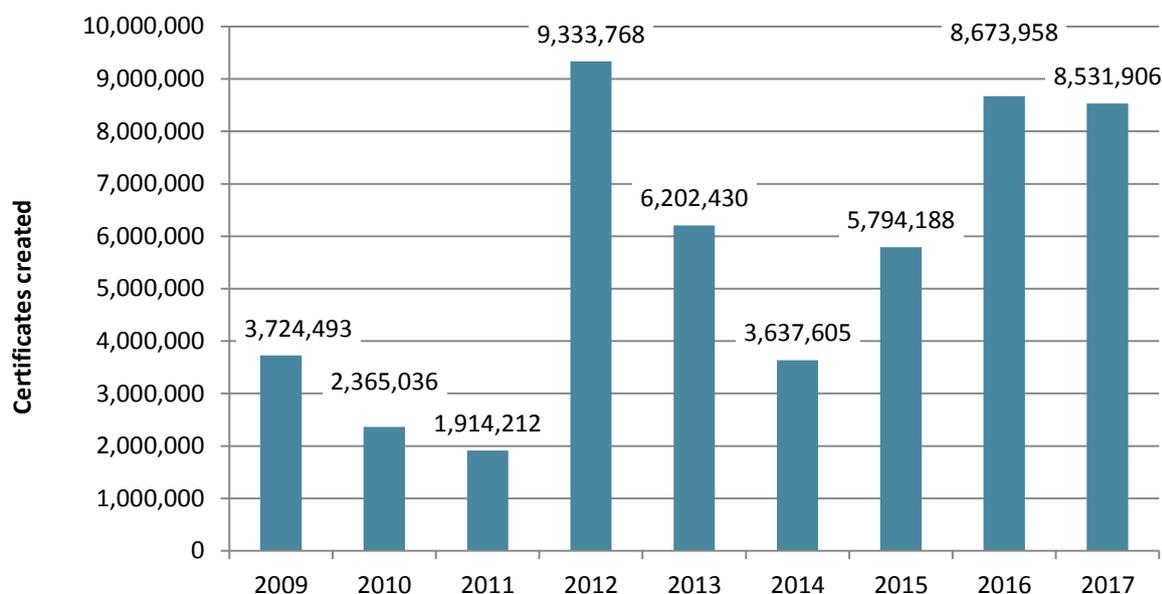
Table 5: Certificates created – 31 January 2017 to 30 January 2018

Activity	2017
Certificates created by accredited persons (31 January 2017 to 30 January 2018)	8,440,673

Over 5.8 million certificates were surrendered by relevant entities with obligations under the scheme in 2017. An accredited person may offer certificates for voluntary surrender or withdrawal if our post-registration compliance activities find errors that the accredited person cannot address.

Figure 3 shows the number of certificates created for each year that the scheme has been in operation.

Figure 3: Certificates created by year – 2009 to 2017



The number of certificates created needs to be viewed in the context of the annual scheme target set for that year:

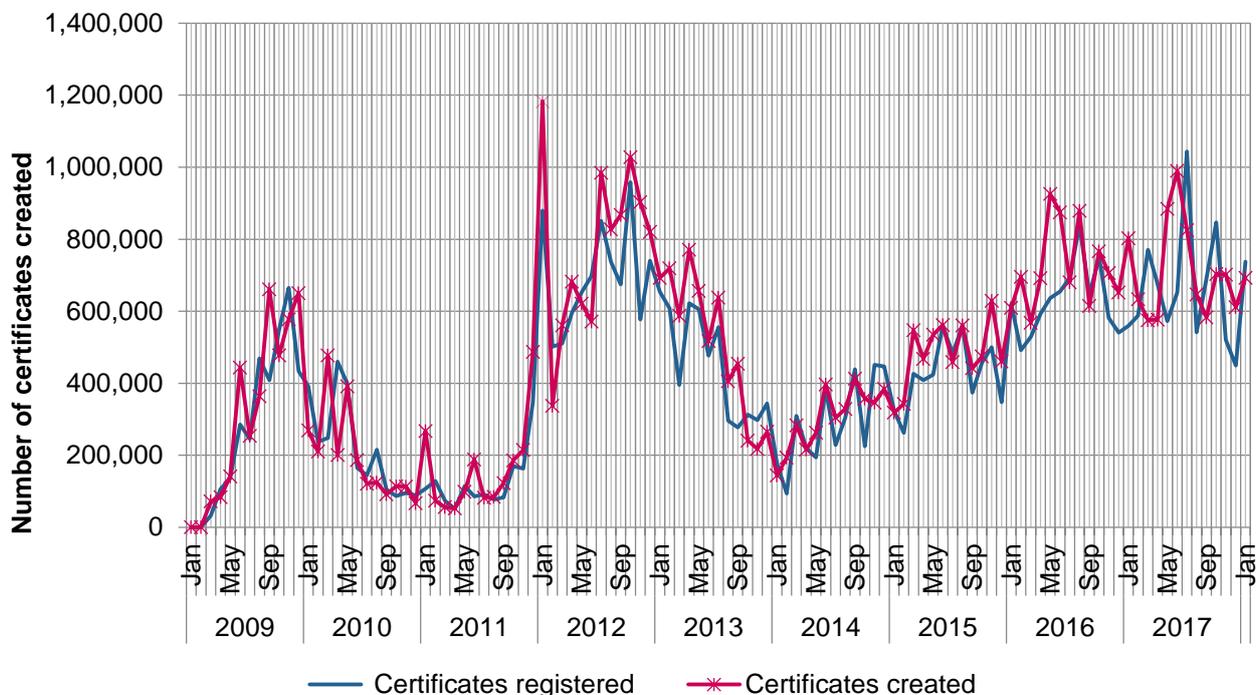
- between 2009-2011 (initial phase) the target was 2.7 million certificates per annum
- between 2012-2014 (second phase) the target was 5.4 million certificates per annum
- in 2015 and 2016 the target was 5.4 million certificates
- in 2017 the target was 5.9 million certificates
- for 2018 the target is 6.1 million certificates and is increasing to 6.5 million in 2020.

and 40 of the Act. Alternatively, accredited persons may make a voluntary surrender under section 25 of the Act to rectify occurrences where activities created did not comply with scheme requirements. This surrender is undertaken following discussions with the accredited person.

The 2017 target of 5.9 million certificates was reached in May 2017. The number of certificates created in 2017 decreased by less than two per cent compared to 2016, making it the third largest creation year since the scheme began. By 31 December 2017, 61 per cent of the certificates required for the 2018 target had already been registered.

Figure 4 charts the number of certificates created and registered on a monthly basis from 1 January 2009 to 31 December 2017.

Figure 4: Certificates created and registered by month – January 2009 to January 2018



2.2. More certificates in non-residential premises than residential premises

At a glance: Almost 88.6 per cent of certificates created were for non-residential activities, but 73 per cent of consumers that benefited from upgrades were households.

In 2017, certificates were created by accredited persons across 28 different types of energy efficiency activities at residential or non-residential premises. Installations were undertaken in more than 20,000 non-residential premises, resulting in the creation of around 7,562,391 certificates (88.6 per cent of all certificates).

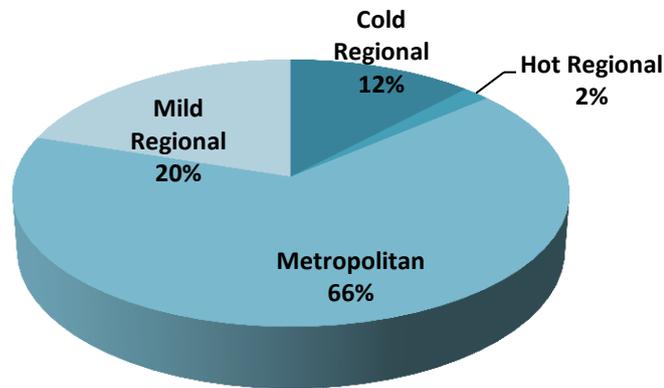
More than 55,000 households had energy efficiency installations carried out, resulting in the creation of more than 969,000 certificates. Some of these households had more than one installation undertaken at their homes, each for a different activity. Notably, 30 per cent of installations creating certificates in 2017 involved two or more different types of activity.

2.3. Melbourne metropolitan region the focus

At a glance: Over 66 per cent of installations were in the Melbourne metropolitan region.

Sixty-six per cent of activities in 2017 were undertaken in the Melbourne metropolitan region. Figure 5 shows the split in activities undertaken in each of Victoria's four climate regions.⁶

Figure 5: Split of activities by climate region – 2017

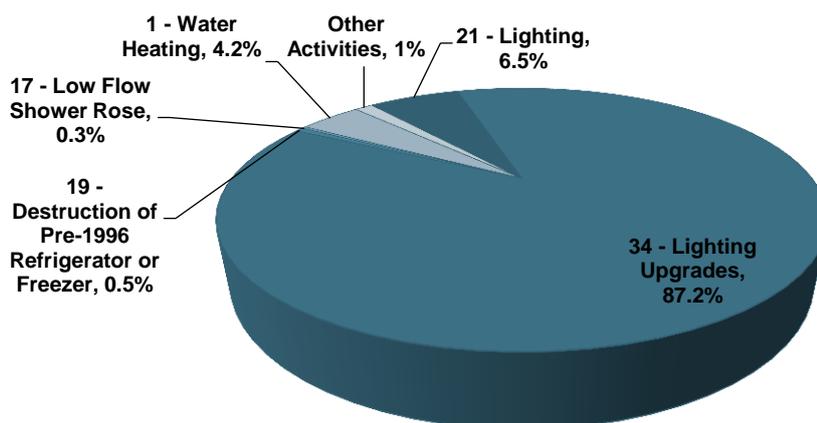


2.4. Lighting activities the main activity

At a glance: Lighting activities accounted for over 93 per cent of certificates created in 2017.

The most common installations carried out by accredited persons in 2017 were lighting activities, which are listed under schedule 21 (replacement of incandescent lamps with low energy lamps) and schedule 34 (lighting upgrades, which may include installation of ancillary lighting equipment at non-residential premises) of the Principal Regulations. Schedule 34 was introduced in 2012. Figure 6 shows the certificates created for all main activities. Over 87 per cent of all certificates created in 2017 were from lighting upgrade installations in non-residential premises.

Figure 6: Percentage of total certificates created by activity – 2017



⁶ Schedule 27 defines the four climate regions in Victoria by postcode.

In 2016, changes were introduced to include variable annual operating hours based on the type of space where the upgrade happened. This resulted in significant growth in 2016 for these activities which became the overwhelmingly dominant activity for certificate creation in 2017.

Figure 7 shows the certificates created for lighting activities from 2012 to 2017. From 2016 to 2017, the number of schedule 34 lighting upgrade activities increased from 18,446 to 23,310. The certificates created for these activities grew from 54 per cent in 2016 to over 87 per cent in 2017.

Figure 7: Certificates created for lighting activities - 2012 to 2017

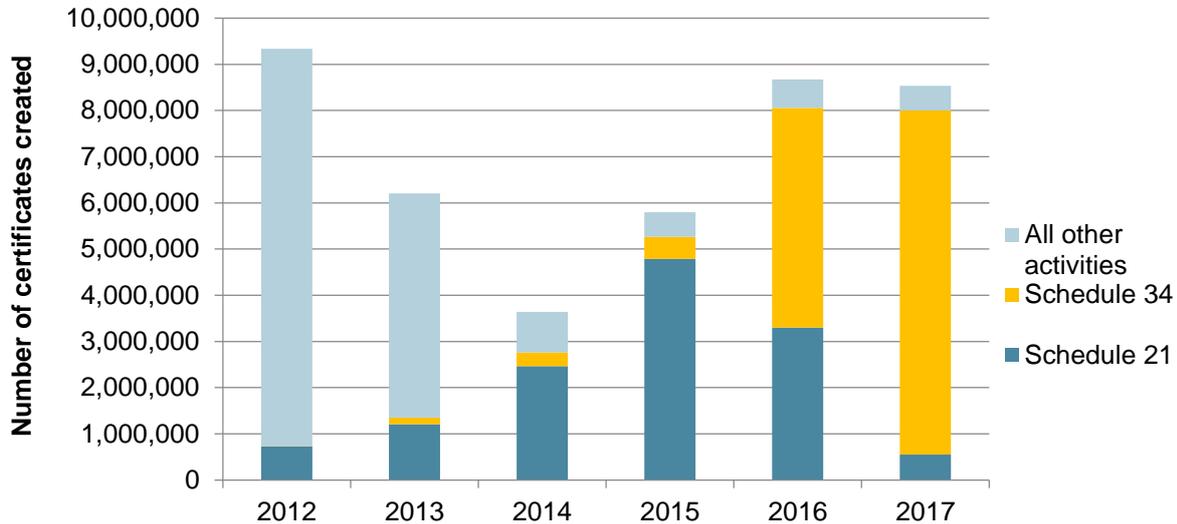


Figure 8 shows the number of certificates created per month for schedule 34 lighting upgrades in 2017. On average, 320 certificates were created for every schedule 34 lighting upgrade installation.

Figure 8: Monthly certificate creations and schedule 34 installations - 2017

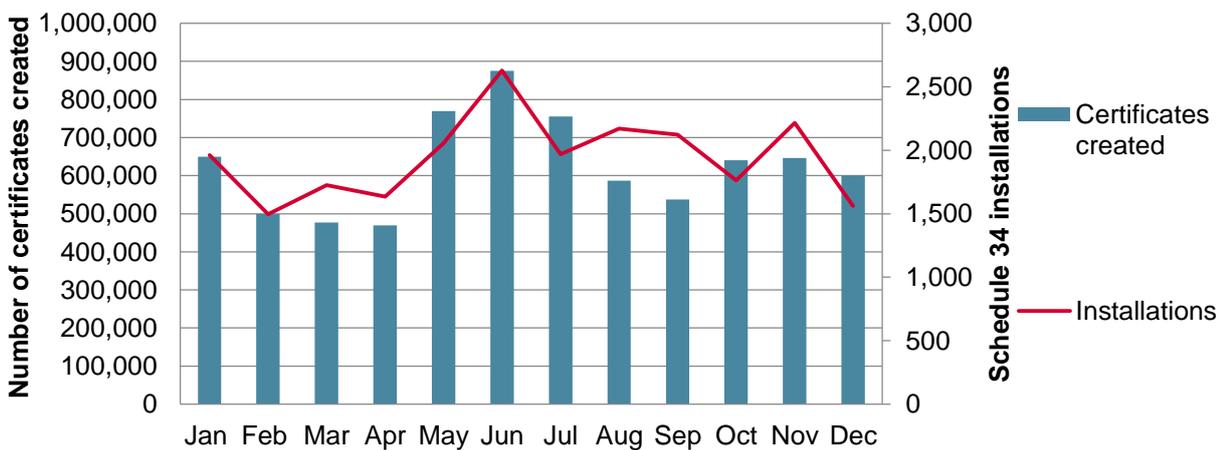


Table 6 shows the top 10 activities for 2017 based on number of certificates created. As noted above, lighting activities account for the majority of certificates created in 2017. While schedule 34 lighting activities created the highest amount of certificates, replacing incandescent reflector lamps with low energy reflector lamps in residential premises under schedule 21B had 28,165 installations, the highest number across all activities.

There was a notable decrease in the overall number of installations, from 373,615 in 2016 to 109,208 in 2017, although the amount of certificates created remained steady. This is due to the uptake of schedule 34 installations, which have a higher average certificate creation per activity compared to schedule 21 installations, which dominated certificate creation in 2015. In addition, schedule 34 installations can be undertaken in a previously untapped pool of non-residential premises.

Water heating activities under schedules 1E and 1B featured in the top ten activities again for 2017. In 2017, there was a moderate increase in schedule 1E electric boosted solar replacing electric resistance water heater with 290,831 certificates created (compared with 49,415 certificates in 2015 and 211,908 for 2016), while the certificates created under schedule 1B almost halved compared to 2016 (59,194 certificates in 2017 compared to 94,985 in 2016). Other notable activities were installation of high efficiency refrigerated cabinets, destruction of old fridges (pre-1996) and installation of low flow shower roses.

Certificates created and registered for all activities during the year can be found in Appendix B.

Table 6: Top 10 prescribed activities for 2017 – Installations, and certificates created and registered

Period	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
	Installations	Certificates created	Certificates registered	Installations	Certificates created	Certificates registered
34 – Lighting upgrade	23,318	7,455,268	6,701,856	45,054	13,145,781	10,783,508
1E - Electric boosted solar replacing electric	6,317	290,831	303,403	13,871	632,552	584,762
21A – Replacing incandescent GLS lamp	13,764	202,411	247,984	407,894	4,035,884	3,555,338
21C – Replacing 12 volt halogen lamp	8,860	154,502	189,131	352,238	7,751,087	7,562,039
21B – Replacing incandescent reflector lamp	28,165	134,596	153,101	117,378	516,595	459,061
1B – Gas/LPG instantaneous replacing electric	1,365	59,194	62,744	20,537	877,115	869,221
32 – Installing high efficiency refrigerated display cabinet	148	59,541	55,138	166	64,374	56,183
19 - Destruction of old refrigerator or freezer	9,338	44,439	43,911	98,092	448,324	438,361
21E – Replacing mains voltage halogen lamp	2,946	36,937	53,559	25,191	330,405	313,554
17 - Low flow shower rose	6,793	23,536	23,383	389,716	1,199,122	1,122,813
Other activities	8,194	70,774	76,139	2,484,245	21,176,357	19,620,116
Total	109,208	8,532,029	7,910,349	3,954,382	50,177,596	45,364,956

2.5. Certificates status

At a glance: More than five million certificates available for trading and/or surrender in the scheme.

Over 50 million certificates have been created since the start of the scheme to the end of 2017. From the certificates created up until the end of 2017, approximately five million certificates were registered as at 13 September 2018 and available for trade, or to acquit a relevant entity's liability under the scheme in 2018 and beyond.

Table 7 includes the status (as at 13 September 2018) of all certificates created from 1 January 2009 and up until 31 December 2017. Certificates created can assume a number of different statuses as part of the certificate lifecycle, depending on its stage of review. An accredited person can withdraw the certificates they created that have not been registered yet. We can also accept, register or reject these certificates.

Certificates that are registered can be traded on the certificate market or surrendered as a result of an obligatory, voluntary or mandatory surrender.⁷ Registered certificates expire six years after the installation that generated them was undertaken. Surrendered and expired certificates are retired from the scheme and are not able to be traded. Minor discrepancies may arise as certificates available for obligatory surrender include those created up until 31 January 2018.

Table 7: Status of certificates created between 1 Jan 2009 and 31 December 2017

Status (as at 13 September 2018)	Measure
Certificates created	50,177,596
Pending registration	74,452
Certificates withdrawn by accredited persons	3,487,696
Certificates withdrawn by commission*	44,291
Registered	5,106,400
Registration refused	117,355
Retired due to obligatory surrender	41,109,524
Retired due to voluntary surrender	237,656
Retired due to expiry	222

* Certificates withdrawn by the commission were a result of a processing error

⁷ An obligatory surrender means that the certificate has been surrendered by a relevant entity to acquit their liability under the scheme (section 33 of the Act). A mandatory surrender occurs pursuant to a commission enforcement action (sections 38, 39 and 40 of the Act). A voluntary surrender occurs pursuant to section 25 of the Act and is done by the accredited person for the purpose of 'making good' against certificates which have been improperly created.

3. Participants compliance with scheme requirements

Our key goal is to safeguard the integrity of the scheme by:

- maintaining confidence in the energy efficiency benefits delivered to consumers
- delivering a balanced, transparent and efficient scheme that ensures a level playing field for scheme participants.

To achieve this, we implement an integrated risk-based framework to all our regulatory activities and to regularly engage with stakeholders to discuss improvements.

We primarily use audit methods to detect and address system-wide issues, and investigation methods to target individual issues.

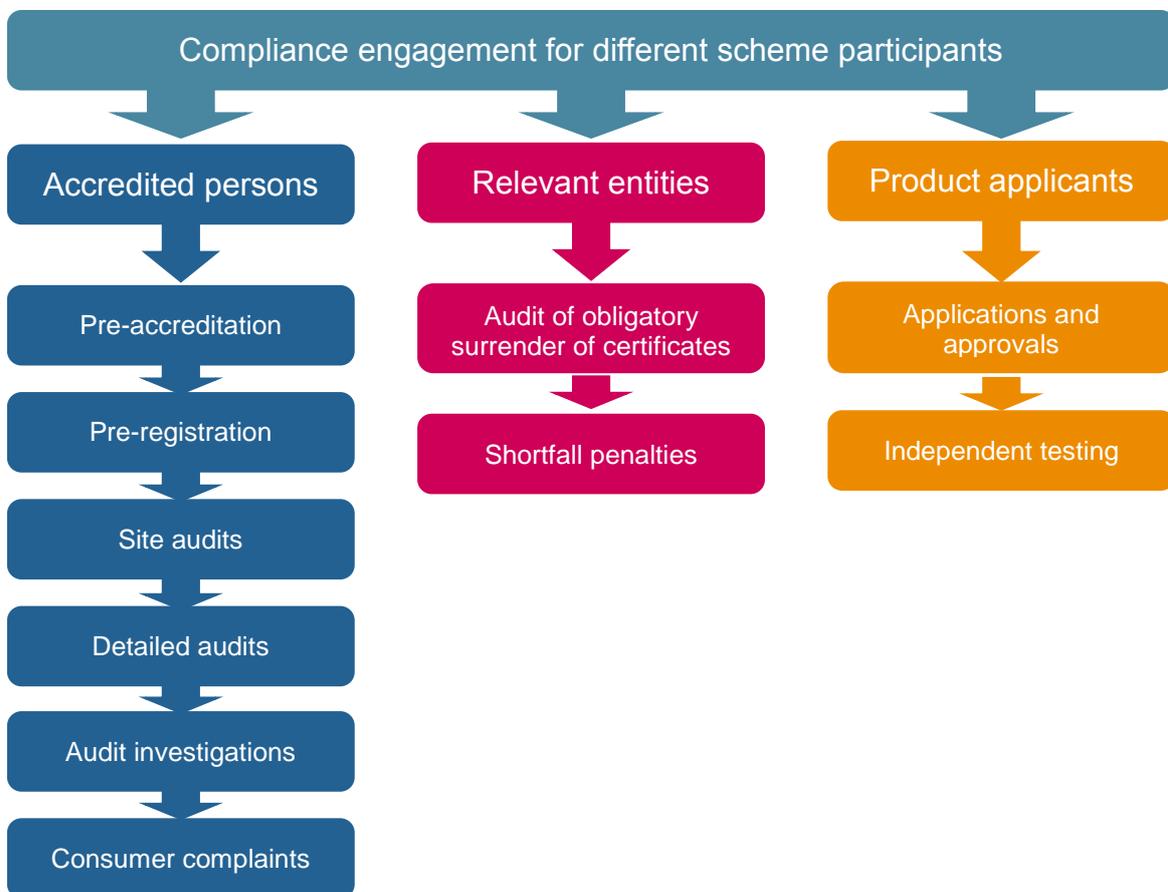
We proportionally apply our regulatory efforts based on the type of scheme participant:

- we audit and investigate the installations and certificate creation by accredited persons
- we review the relevant entities' independently audited annual energy acquisition statements
- we set approval requirements and processes that must be met for product applicants before the product is approved.

This approach helps to ensure participants comply with the requirements of the scheme.

How we engage with each type of participant is shown in Figure 9, with more information for each item given in the chapter sections below.

Figure 9: Compliance engagement for different scheme participants



3.1. Audits for accreditation and additional activity approval

At a glance: In 2017, we held seven pre-accreditation audit meetings and 18 audit meetings for additional activities approval.

We arrange a pre-accreditation audit meeting with anyone applying to be an accredited person in the scheme. We also have audit meetings with existing accredited persons if they want to become approved to do additional activity types in the scheme.

These audits allow both parties to discuss the expectations and requirements for VEET activities.

As part of the audit, we complete a risk assessment of the person. We use this assessment to calculate a risk rating score. We regularly update this rating to reflect any person's compliance performance. This process enables us to adopt a risk based approach when we assess certificates and plan our audit and investigation program.

3.2. Pre-registration activities

3.2.1. Certificate batch checks

At a glance: We identified and resolved over 3,700 potential compliance issues during our pre-registration checks.

We assess created certificates before they are registered. We take a risk-based approach that checks whether the activity, as undertaken, is eligible to create certificates under the scheme.

Depending on the activity, assessment may include a review of the assignment form, certificates of electrical safety or photographic evidence. This process helps us ensure that created certificates qualify to be registered.

We evaluate in batches of maximum 10,000 certificates, selecting batches based on the risk factor of the activity being undertaken and the risk factor of the accredited person creating the certificates. Accredited persons may be required to provide additional evidence to show that the created certificates meet the relevant requirements. An accredited person may choose to withdraw the activity if they are not able to provide that evidence.

3.2.2. Escalated investigations

At a glance: We conducted 23 investigations, with over 12,500 certificates withdrawn.

We completed 23 pre-registration investigations where we had identified potential non-compliance with scheme requirements in certificate creation claims. Our investigations may be triggered during validation of an accredited person's certificates, information from consumers or other accredited persons, or the poor compliance history of an accredited person.

The majority of withdrawn certificates (over 11,400) were the outcome of three investigations involving lighting installations under schedules 21A, 21E and 34. The remainder (over 1,100) were withdrawn as a result of 12 investigations. Eight investigations (33%) did not result in accredited persons withdrawing certificates.

3.3. Desktop and field audits of sites

At a glance: 227 field audits of sites completed by authorised officers.

We use desktop and field audits to check that installations undertaken at a particular site correspond with the parameters used to create certificates for that site.

We review specific evidentiary documents to support certificate creation during a desktop audit, and inspect premises where installations have occurred during a field audit. These audits feed into our detailed audits and investigations of accredited persons.

In 2017, we completed 202 desktop audits and 227 field audits, focusing on schedule 34 lighting upgrades. Included in the 202 desktop audits are 10 audits of accredited person' first creations.

3.4. Detailed audits of accredited persons

At a glance: 18 detailed audits completed.

Our auditing program focuses on both random and targeted audits of accredited persons.

Detailed audits provide a detailed assessment of the accredited person's systems, processes and controls. As part of these audits, we interview key personnel and installers to gain assurance that they are participating in accordance with the scheme requirements.

We completed eighteen detailed audits of accredited persons in 2017, with a focus on lighting installations completed under schedules 21 and 34. This audit program covered accredited persons who were responsible for 51 per cent of certificates created during the year; eight of the 18 accredited persons audited are in the top ten of certificate creators.

As part of these audits, we carried out 227 field audits of installations to assess compliance and consumer satisfaction regarding their installation. We also contacted 294 consumers to assess compliance and consumer satisfaction. The completion of these detailed audits resulted in over 16,000 certificates being surrendered by accredited persons due to non-compliance.

The outcomes of these audits identified process and control improvements in the areas of:

- decommissioning
- accuracy of floor plans showing the upgraded area,
- precision of light level readings (lux readings)
- stock management to ensure that only approved products are installed.

Once we have audited an accredited person, we provide them with an audit report. This formally communicates any findings of non-compliance and recommendations that will help them create certificates in accordance with the scheme. We then monitor the accredited person to ensure they implement all the audit recommendations within the set timeframe.

Table 8 summarises our compliance activities in respect of detailed audits and field audits.

Table 8: Number of detailed audits with consumer phone calls - 2017

Type of compliance	Number	Schedule
Detailed audits	18	21, 34
Fields audits	227	21, 34
Consumer phone calls	294	21, 34

3.5. Audit investigations

At a glance: We investigated one accredited person, with more than 62,000 improperly created certificates withdrawn.

We conduct audit investigations when we become aware of potentially significant non-compliance with scheme requirements. In 2017, we undertook audit investigations that involved one accredited person (Demand Manager). Our compliance activities resulted in the withdrawal of 62,367 certificates and pursuant to Section 40A of the Act the commission invoked a warning on them.

This investigation identified that a significant number of claims were submitted in contravention of the Principal Regulations. Issues identified were:

- existing control gear that was not decommissioned and left in situ
- claiming of certificates for more lamps than those actually installed
- unapproved lamps
- lack of processes and controls.

Audit staff worked closely with the accredited person and this participant engaged an independent auditor and entered into a VEET tripartite agreement to determine the levels of non-compliance.

The outcomes for this accredited person resulted in strengthening of their internal controls and procedures. They engaged external parties to develop new systems to have better monitoring systems in place to ensure that certificates were being created compliantly.

3.6. Consumer complaints

At a glance: Consumer complaints have decreased.

We investigated 76 compliance-related complaints from consumers in 2017 – a large decrease from the 276 received in 2016.

Of the total complaints received, 39 related to schedule 34 lighting upgrades (2016: 19), 28 related to schedule 21 (2016: 204) and five related to schedule 1, residential water heating upgrades.

Schedule 34 lighting complaints overtook schedule 21 as the main source of complaints. The marked decline in schedule 21 lighting complaints and increase in schedule 34 was in line with the shift in the market from residential installations to commercial lighting installations.

Schedule 34 lighting complaints primarily related to insufficient workplace lighting service levels and non-compliance with the AS/NZS 1680 (interior and workplace lighting) standard. As a result

we increased our efforts to ensure accredited persons understand the need to comply with that standard and commercial lighting upgrades meet minimum illuminance requirements.

The small amount of schedule 1 water heating complaints primarily related to product faults, poor service levels and certificate benefits not being received by consumers.

We also investigated three complaints related marketing and advertising practices and one complaint relating to an in-home display installation (schedule 30).

Table 9: Number of consumer complaints received - 2017

Type of compliance	Number	Schedule
Consumer complaints received	76	1, 21, 30, 34

3.7. Audit of obligatory surrender of certificates from relevant entities

At a glance: 5,836,677 certificates surrendered by relevant entities.

The scheme requires the following entities to surrender certificates:

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

These relevant entities must send us an audited annual energy acquisition statement and an independent audit report detailing the amount of electricity and/or gas acquired during the reporting year. Statements must be submitted, and the required number of certificates surrendered, by 30 April of each year.

We use the annual energy acquisition statement and audit report to check that the relevant entity has accurately calculated its annual liability under the scheme. In 2017:

- twenty-eight Victorian energy retailers were identified as relevant entities
- two energy retailers had an energy efficiency certificate shortfall. During 2018, we issued and enforced shortfall penalties against these retailers under the Act.
- relevant entities surrendered a total of 5,836,677 certificates in order to meet their liability.

Table 10: Details from annual energy acquisition statements

Details	Measure
Relevant entities	28
Relevant entities that had an energy efficiency certificate shortfall	2
Amount of relevant entities' energy efficiency certificate shortfalls	
<i>AGL Sales Pty Ltd shortfall quantity</i>	28,144
<i>AGL Sales (Queensland Electricity) Pty Ltd shortfall quantity</i>	35,889
Total of energy efficiency certificate shortfalls	64,033
Number of certificates surrendered by relevant entities for 2017	5,836,677

3.8. Product applications and approvals

At a glance: Lighting products were the main source of submissions and approvals in 2017.

In 2017, a total of 2,012 energy saving products were submitted to us for approval. We approved 2,194 products for use in the scheme. This brings the total number of approved products to 11,469.

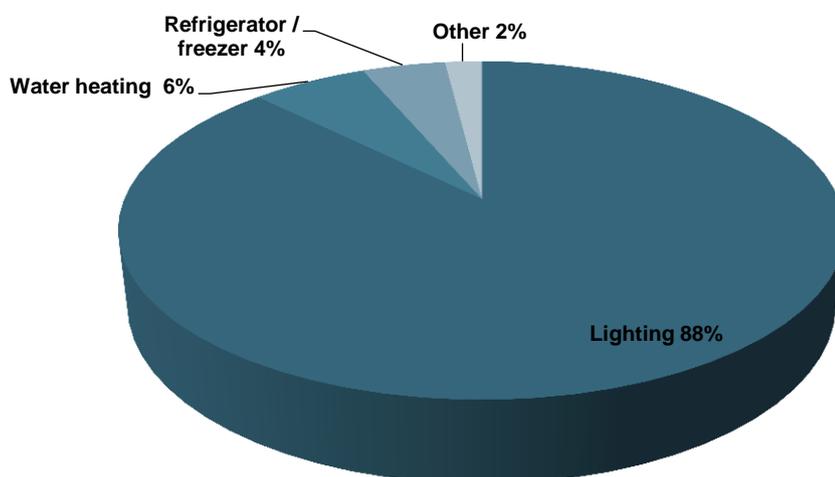
Table 11 shows the number of products submitted and approved by activity type for 2017. Most of the submissions and approvals were for products used in lighting activities (schedules 21 and 34).

Table 11: Summary of product applications and approvals - 2017

Activity Type	Product applications	Product approvals
Lighting	1,792	1,919
Water heating	124	135
Refrigerator/freezer	47	97
Space heating and cooling	32	28
Weather sealing	11	10
Low flow shower rose	6	5
Total	2,012	2,194

Figure 10 shows the product approvals split by type of activity for 2017. Products for lighting activities made up most of the approvals, followed by water heating products, refrigerators and freezers, and space heating and cooling appliances.

Figure 10: Product approvals by type of activity - 2017



3.9. Independent product testing

At a glance: We continue to undertake safety and performance testing to ensure approved products meet all requirements.

To ensure that products listed on the Register of Products meet the requirements of the Principal Regulations, we undertake independent safety and performance testing programs with a focus on 'emerging technology' products such as LED lighting.

We choose which products to test based on a number of factors, including the quality of supporting documentation, reported incidents of failure, the number of products installed under the scheme and the number of recent installations.

If we identify problems with a product in these test programs, we may refer it to Energy Safe Victoria for further action and may ultimately suspend it from the Register of Products.

Table 12 shows a summary of outcomes from the 2016 product performance and safety testing program. While four products were initially suspended as a result of the performance tests, one was subsequently reinstated following further work as a result of the test outcomes.

Table 12: Summary of product performance and safety testing program outcomes

Program	Number of products tested	Result
Performance testing	13	4 products suspended (1 product subsequently reinstated)
Safety testing	7	3 products suspended

At the end of 2017, planning was underway to select products for the next round of independent performance and safety testing.

4. Scheme evolution and improvements

At a glance: The scheme is always evolving and we aim for a seamless transition for participants.

The Department of Environment, Land, Water and Planning (DELWP) is responsible for the design of the VEET scheme, which was rebranded as the Victorian Energy Upgrades (VEU) program in August 2017. The Hon. Lily D'Ambrosio MP remains the responsible minister as Minister for Energy, Environment and Climate Change.

The scheme continues to grow and change as new activities are introduced and the annual target is increased. During the year, we worked to ensure that:

- we delivered a regulatory and administrative framework which safeguards the integrity of the scheme
- we delivered an implementation framework to support the commencement of regulatory changes by their start date
- we actively engaged with scheme participants to ensure they are kept up to date and that their views are considered when implementing changes

Regulatory requirements changed for a range of activities under the scheme in 2017. Table 13 lists these changes and their start date.

Table 13: Summary of regulatory changes in 2017

Regulation change	Change start date
Amendment to schedule 24 - High efficiency televisions	1 January 2017
Amendment to schedule 15 - Weather sealing	1 July 2017
New Project-Based Activities (PBA) Regulations, introducing the measurement and verification method	19 June 2017
Amended Principal Regulations relating to scheduled activity premises	1 August 2017

Further information on these regulatory changes can be found in appendix C and in sections below.

We also conducted a number of other reviews and process improvement initiatives to continue to enhance the efficiency and integrity of the scheme. These are also explained in greater detail in sections below.

4.1. Implementing the measurement and verification method of project-based activities

We implemented a new method to create certificates under the new PBA Regulations. The PBA Regulations move away from the previous set of simplified energy saving calculations set out in the

Principal Regulations and provide energy consumers with new methods for accessing certificates for project-based activities. These are typically large and custom-designed projects.

4.1.1. Planning and design of project-based activities regulations and administration

The PBA Regulations are a separate set of regulations that sit alongside the Principal Regulations. They commenced on 19 June 2017 and set out the requirements for project-based activities and introduced the first method of calculating energy efficiency savings, measurement and verification.

Throughout 2017 we worked very closely with DELWP, continuing to assist in the design of the PBA Regulations as well as preparing for our implementation of the framework.

4.1.2. Staged release of administration

We designed and developed our implementation framework and other documentation so that we could release it in stages and make it available to stakeholders as soon as it became available. The release schedule is provided in Table 14 below.

Table 14: Project-based activities implementation schedule

Date of release	Documents	Outcome
19 June (coinciding with commencement)	Summary information (overview) Hot topics (FAQs) AP application form	We provided stakeholders with an overview of how the new method works and on how to apply to participate in the new method
1 August	Explanatory notes and application forms for: <ul style="list-style-type: none"> • measurement and verification • variations • scoping plans and project plans 	We provided detailed information on how the method works and on the application process to become accredited persons, submit project documentation and be approved as a third-party expert
14 December	Application form for impact report approval	We provided detailed information on how to demonstrate the amount of energy saved by the project.

This staged release allowed stakeholders to understand their requirements well in advance of when they progressed to the next stage. We regularly update these documents based on feedback.

4.1.3. Stakeholder engagement

We recognise the framework and method for project-based activities is complex and we doubled our efforts to engage with stakeholders. We engaged with stakeholders on project-based activities at a number of events in 2017, as shown in Table 15.

Table 15: Project-based activities engagement at events

Date	Event	Engagement
21 April	VEET forum	Presentation and discussion on the upcoming project-based activities and measurement and verification method.
1 August	DELWP VEET industry update event	Joint presentation with DELWP on how to participate followed by questions and a panel discussion.
13 October	VEU forum	Detailed session on the type of information and evidence required for project-based activities and measurement and verification.
11 December	Energy Efficiency Council event	Industry meeting where we answered numerous questions from EEC members.

We also held a two-hour workshop for each newly approved participant to this method (five in total) to clarify our requirements, answer specific technical questions and receive their feedback. Stakeholder response to our implementation of the project-based activities framework and our engagement has been extremely positive.

4.1.4. Responsiveness

We publish the time we take to fulfill our duties under the PBA Regulations, which specify we have to assess project documentation within certain timeframes. We are significantly below specified times, as demonstrated by the comparison of actual average times and specified times in Table 16.

Table 16: Average times and specified times for project-based activities - 2017

Project documentation	Average time during 2017 (days elapsed)	Specified time in PBA Regulations (days elapsed)
Scoping plan	1.4	60
Project plan	5.3	180
Impact report	N/A	120

The scoping plan is the document we must approve prior to the project-based activity being implemented. We provide conditional in-principle approval of the project at that stage. Project plans can be submitted with the scoping plan, or at a later stage, but prior to project works commencing. The impact report must receive third-party expert verification and it details what measures were undertaken, how savings were measured and the equivalent certificates.

4.1.5. Uptake of project-based activities

From the time of their introduction, on 19 June 2017, until 31 December 2017, we received 28 questions specifically relating to the method through our external information system and we continued to engage with stakeholders that had shown an interest in the new method.

A summary of applications received and approved for project-based activities in 2017 is provided in Table 17 below.

Table 17: Project-based activities uptake in 2017

Application type	Received	Approved
Accreditation for project-based activities	7	5
Scoping plans	3	2
Project Plans	2	0*
Approved Measurement and Verification Professional	3	2

* They were subsequently approved during January 2018 and certificates created in June 2018.

4.2. Introducing scheduled activity premises amendments for large energy users

We implemented the 1 August regulatory amendment including introduction of schedule 37 into the Principal Regulations, which provided a mechanism for occupiers of scheduled activity premises (SAPs) to voluntarily join the scheme. These facilities were participants of the EPA's Environment and Resource Efficiency Plans (EREP) program that ran from 2008 to 2013.

Prior to 1 August 2017, these premises which were formerly in the EREP program were excluded from the scheme. When amended, the Principal Regulations provided new arrangements for these premises (now defined as scheduled activity premises), allowing them to remain excluded from the VEET scheme or to opt-in if they wish.

Accredited persons are able to generate certificates under the scheme for installations in SAPs that have opted in. However, premises which 'opt-in' to the scheme, create liabilities for their energy retailer under the scheme once a certificate is registered for the site.

We undertook substantial work to prepare for this amendment, due to complexity around determining the list of SAP addresses and legal issues around the appropriate treatment of SAP sites in certain scenarios (e.g. when there were changes in ownership, changes in site purpose, multiple occupiers of a site, multiple addresses for a site).

We publish a Register of Scheduled Activity Premises which contains all known addresses of SAPs to help stakeholders understand if premises are SAPs before undertaking an installation.

During 2017, 11 of these sites voluntarily joined the scheme.

4.3. Preparing to implement new principal regulations

At a glance: We provided specialist advice to the department in fundamental design aspects of the new principal regulations.

The Principal Regulations that set the rules to create certificates under the scheme are due to sunset in 2018. In 2017, DELWP started consulting with us on some of the early design aspects of the new regulations.

During the year, we provided specialist advice on fundamental design aspects of the new regulations. Our advice was focused on incorporating best-practice regulatory principles and our learnings from the last nine years to ensure development of new regulations which continued to safeguard the integrity of the scheme.

4.4. Other reviews in 2017

At a glance: We reviewed three key framework settings in 2017.

We regularly review how we regulate the creation of certificates for different activities and how we can improve framework settings to optimise how the scheme operates. This helps ensure that regulatory and evidentiary requirements are proportionate and enable participants to operate within the scheme, while simultaneously addressing compliance and scheme risks.

During 2017, we conducted three reviews of broad regulatory settings focusing on:

- insulation
- the introduction of scheduled activity premises
- mandatory safety training requirements

We also conducted a number of targeted reviews in response to stakeholder feedback and/or queries.

4.4.1. Insulation review

In December 2016, we initiated a formal consultation process to review the regulatory requirements and installation requirements for schedules 11 (ceiling insulation) and 12 (underfloor insulation).

The consultation sought to receive information from accredited persons, industry stakeholders and other interested parties on the requirements that would support and enable the re-introduction of insulation activities into the scheme.

Submissions for the consultation closed in February 2017. We reviewed the submissions and prepared a draft decision on the outcome of the consultation process. However, the release of our decision and the review process was put on hold pending DELWP's review of the 2008 Principal Regulations and development of the 2018 Principal Regulations.

4.4.2. Mandatory safety training review

Professionals who perform installations under the VEET scheme must be suitably trained to perform the activities they are doing safely and competently. In 2017, we progressed the implementation of recommendations from a 2016 review of safety risks and occupational health and safety implications for activities.

Changes focused on schedules 13, 14, 15, 17, 21, 26 and 34. The changes included an updated training identification matrix and risk assessment matrix, and an updated workplace health and safety assessment unit of competency. Relevant changes to the mandatory safety training requirements came into effect from 1 July 2017.

4.4.3. VEET IT systems review

During the year, we undertook a review of our VEET IT systems to assess the system's near-, medium- and long-term risks. It included a technical review involving a performance and security assessment by an external IT consultancy and a user review by commission staff.

This helped us better understand the system's ability to meet the requirements of the scheme over the medium term (to 2020 for which the scheme has legislated targets) to long term (beyond 2020 to 2029).

The review found that the current IT system was largely meeting the needs of the users (both external and commission staff). However, there are some challenges and limitations to the system's capabilities, particularly relating to reporting, integration with other applications, scalability, compatibility with modern devices, and the website interface.

Based on the outcomes of the review, we initiated a program of incremental upgrades to our existing IT systems to ensure the VEET website continued to successfully support the scheme in the short to medium term. We also commenced work on developing a business case to seek funding from the Victorian Government in the 2018 budget cycle to upgrade our IT system to support the scheme through to 2029.

4.4.4. Settings specific to prescribed activities

During the year, we also conducted targeted reviews of regulatory settings that focused on a single prescribed activity or family of prescribed activities and published related information bulletins on the following matters:

- clarification of decommissioning requirements for space heating schedules 6 and 8
- clarification of Building Code of Australia (BCA) classifications for a number of different space types under schedule 34
- changes to certificate creation forms for schedule 34 (lighting upgrades)
- updates to the compliance and/or decommissioning requirements for schedules 1, 3B, 5, 6, 7, 8 and 21
- updates to evidentiary requirements relating to space types for schedule 34 - building based lighting upgrades
- clarification of product application and product installation requirements under lighting schedules 21 and 34
- updates to installation and assignment form requirements for water heating schedules 1A, 1B, 1E and 1F
- updates to certificate of electrical safety requirements for schedule 34 (lighting upgrades).

4.5. Improvements to the product approval process

At a glance: We made improvements to the scheme product approval process.

We made a number of improvements in 2017 to our processes for approving energy efficient products under the VEET scheme.

4.5.1. Administrative changes

We removed from our Register of Products those that did not meet the new minimum product requirements under schedules 24 and 15.

From 1 May, we required photographs of the product and any remote control gear (where applicable) for applications for products under schedules 21 and 34.

4.5.2. Process improvements

In 2017, we focused on improving the efficiency, efficacy and clarity of our product assessment function and reduced our application processing times. Our analysis indicated that only 27 per cent

of products listed were actually being installed, which meant that we were spending a lot of time assessing applications for products which were never used under the scheme. We also found that we were spending a lot of time requesting further information to support applications.

On 1 May, we clarified that we would prioritise applications that had at least one nomination⁸. We also informed applicants that improving their documentation would shorten assessment timeframes.

As a result of these communications and other process improvements, we observed that by September, only 50 per cent of product applications approved had one request for further information, compared to 64 per cent in March. Our records also show that 40 per cent of applications were approved within one week, 59 per cent within two weeks and 90 per cent within one month (once we had received all information and nominations), which was a significant improvement on approval times at the start of the year.

4.6. Enhancements to the IT system

At a glance: We introduced new features and improved user experience for our IT system.

A key focus for IT system changes made during the year was the development and release of functionality to enable the administration of the 2017 regulatory amendments, in particular the introduction of project-based activities into the scheme.

During the year, we implemented more than 70 system changes to meet regulatory change requirements, and to improve system performance and usability.

New features for our IT system in 2017 included:

- improvements in search functionality for the Register of Products
- setting limits on the number of products that can be applied for in a product application to streamline the assessment application process
- providing visibility of nomination date in Register of Products and introduction of nomination reminder emails to improve transparency for applicants
- improvements to management of training records
- standardisation of mandatory certificate creation fields across all schedules
- workflow improvements to streamline internal accreditation and certificate creation assessment processes.

4.7. Working with scheme participants

At a glance: We held two forums to engage with participants in April and October 2017.

A key principle of our regulatory approach is to actively and regularly engage with our scheme participants. We work with scheme participants to ensure they understand the scheme's legislative framework, performance requirements and administrative processes. We provide prompt responses to telephone and email inquiries, regularly meet with stakeholders, and consult with accredited persons and stakeholders on proposed changes to processes.

⁸ A nomination is a declaration by an accredited person able to create certificates under one of the activity types that they plan to install the nominated product for that activity type.

We initiated a project that aims to improve our communication approach with stakeholders. We presented some of our preliminary ideas to Energy Efficiency Certificate Creators Association (EECCA) members on 20th September 2017. We received positive feedback on our ideas, and some useful feedback which we have incorporated into our design approach.

Stakeholder feedback was sought from all scheme participants as part of the commission's reputational survey. We also sought targeted feedback from stakeholders who create certificates in the scheme on building based lighting. Based on the feedback received, we developed new dynamic certificate registration targets based on stakeholder performance, implemented a reduction in the number of certificates contained within a registration batch and increased the number of installations we assessed.

We also consulted stakeholders on our compliance and enforcement policy.

In 2017, we held public information forums in April and October. These half day events were attended by hundreds of people and included presentations on the status of the scheme, compliance issues, and how to meet scheme requirements. In October, we followed on our presentations with workshops relating to some key scheme initiatives to jointly solve problems and maximise engagement with participants.

All presentations given at public forums, consultation documents and explanatory notes for scheme participants are available on our website (www.veet.vic.gov.au).

4.8. Working with other government agencies

At a glance: We provide assistance and specialist advice to other jurisdictions and the Victorian Government.

During the year, we met and liaised with officers from other interstate energy efficiency schemes (Australian Capital Territory Energy Efficiency Improvement Scheme, New South Wales Energy Savings Scheme, the South Australian Retailer Energy Efficiency Scheme) and the Commonwealth's Clean Energy Regulator to share information and experiences, and to coordinate between schemes where appropriate.

Closer to home, we worked closely with other government agencies such as Energy Safety Victoria and WorkSafe Victoria.

Throughout 2017, we continued to assist the Commonwealth Government on:

- setting minimum energy performance standards for LED lighting products and the potential phase out of halogen lamps
- the creation and the implementation of the Street Lighting and Smart Controls Roadmap that aims to replace street lights with LED products.

We supported both of these Commonwealth Government projects through active membership of technical working groups (including participation in workshops and document reviews) and provision of information to the government on lighting products under the VEET scheme.

Glossary

Insert term	Insert definition
accredited person (AP)	Person accredited under the VEET scheme. Once accredited, a person is eligible to create certificates in the VEET scheme in respect of prescribed activities.
Building Code of Australia (BCA)	The Building Code of Australia (BCA) is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia. The BCA is given legal effect through the Building Act 1975.
certificate	Victorian energy efficiency certificate created as part of the scheme, representing one tonne of carbon dioxide equivalent of greenhouse gases to be reduced by the prescribed activity.
Commission	Essential Services Commission, established under the Essential Services Commission Act 2001.
compliance year	Period over which each annual target must be achieved, which is a full calendar year.
DELWP	Department of Environment, Land, Water and Planning (formerly Department of Economic Development, Jobs, Transport and Resources (DEDJTR))
energy acquisition statement	Annual statement by a relevant entity about the amounts of electricity and gas acquired under scheme acquisitions during the year.
energy efficiency certificate shortfall	Number of certificates for which a relevant entity has failed to acquit its share of the scheme target.
energy efficiency shortfall penalty	Civil pecuniary penalty for which a relevant entity is liable in the event of an energy efficiency certificate shortfall.
GJ	Gigajoule
greenhouse gas	Carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons, perfluorocarbons and any other gas prescribed to be a greenhouse gas.
greenhouse gas reduction rates	Rates, fixed annually by ministerial order, in respect of electricity and gas for a particular compliance year.
guidelines	The scheme guidelines made by the commission.
liability	The liability of relevant entities to surrender certificates under the scheme.
MWh	megawatt hour

Insert term	Insert definition
prescribed activity	An activity, prescribed under the Act, resulting in a reduction in greenhouse gas emissions that would not otherwise have occurred if the activity was not undertaken.
prescribed greenhouse gas scheme	Voluntary offset scheme or mandatory greenhouse gas scheme or any other arrangement that promotes the reduction of greenhouse emissions and is prescribed by the scheme.
Register of Accredited Persons	Public register, maintained by the commission, containing the names and certain other particulars of accredited persons.
Register of Victorian Energy Efficiency Certificates	Public register, maintained by the commission, containing information about energy efficiency certificates as required by the scheme.
Register of Products	Public registers, maintained by the commission, containing particulars of certain allowable products that may be used for the purposes of prescribed activities.
relevant entity	Entity that sells electricity or gas, or both, to at least 5,000 Victorian customers, or makes a scheme acquisition of 30,000 MWh or more of electricity, or 350,000 GJ or more of gas in one compliance year.
scheme acquisition	Purchase by a relevant entity, for on-sale to Victorian customers, of electricity or gas, or both, within the provisions of the scheme.
the PBA Regulations	The Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017
the Principal Regulations	The Victorian Energy Efficiency Target Regulations 2008, made under the Act
the Act	Victorian Energy Efficiency Target Act 2007
Victorian Energy Upgrade program	The public facing name of the VEET scheme
VEET accounts	Accounts used by participants to carry out transactions in the VEET scheme.
VEET scheme	Scheme established by the Act.
VEET scheme target	Scheme target set by legislation.

Appendix A: VEET scheme framework

Overview

The Essential Services Commission administers the Victorian Energy Efficiency Target Act 2007 (the Act) and regulates the creation of certificates by participants in the Victorian Energy Efficiency Target (VEET) scheme. The scheme started in 2009 and is currently publicly promoted as the Victorian Government's Victorian Energy Upgrades (VEU) program, designed by the Department of Environment, Land, Water and Planning (DELWP).

The Act promotes the reduction of greenhouse gas emissions by encouraging the efficient use of electricity and gas in the residential and commercial sectors. To achieve the Act's purpose, the scheme is designed to make energy efficiency improvements more affordable for consumers.

The scheme operates by placing a liability on large energy retailers in Victoria to surrender a specified number of Victorian energy efficiency certificates (certificates) every year. Energy retailers with a liability under the scheme are known as 'relevant entities'. They can create certificates directly or purchase certificates in a competitive market.

For each tonne of carbon dioxide equivalent (CO₂-e) abated as a result of activities undertaken under the scheme, one certificate is created.

Certificates are created by persons accredited by the Essential Services Commission to undertake a range of prescribed energy saving activities. These persons are known as 'accredited persons'. The revenue generated through certificate sales enables accredited persons to pass on benefits to households and businesses, which makes these energy saving activities more affordable. As the scheme is market based, the level of incentive offered to consumers varies depending on the market activity and certificate price.

For the first three-year phase of the scheme (2009-11), the scheme target was 2.7 million certificates per annum. The target was increased to 5.4 million certificates per annum for the second three-year phase of the scheme (2012 to 2014), and maintained in 2015 and 2016. In 2017, the target was 5.9 million certificates. This has increased further to 6.1 million for 2018, 6.3 million in 2019, and 6.5 million in 2020.

We regulate the creation of certificates under the scheme. To create certificates under the scheme, a person needs to satisfy our process requirements, product requirements, installation requirements and compliance requirements.

We also ensure that all energy retailers captured by the scheme surrender the right amount of certificates every year, which depends on the certificates target set for the year and how much electricity or gas they sell.

Legislative framework

The VEET scheme is governed by the Act, the regulations and the guidelines.

The Act

The Act came into operation on 1 January 2009. It is the primary legislation establishing the scheme and enables the authority of regulations and guidelines to be made.

We administer the Act and discharge our regulatory responsibilities as set in regulations and guidelines. One of our main functions is to enforce the imposition of energy efficiency shortfall penalties on retailers captured by the scheme if they fail to surrender sufficient certificates in any given compliance year.

The Act also requires certain matters relating to the scheme to be specified through an Order in Council published in the Government Gazette.

The regulations

The Act is supported by the Victorian Energy Efficiency Target Regulations 2008 (the Principal Regulations) and the Victorian Energy Efficiency Target (Project-Based Activities) Regulations 2017 (PBA Regulations).

The Principal Regulations specify what activities can create certificates, if undertaken under the scheme, and includes details regarding the products that can be installed, installation requirements and the greenhouse gas abatement for each activity. We publish our Register of Products as specified in the Principal Regulations.

The Principal Regulations have been updated 18 times over the years since the commencement of the scheme on 1 January 2009. Amendments to the regulations have included:

- setting new targets for the second phase of the scheme (2012 to 2014) of 5.4 million certificates per annum
- expansion of the scope of the scheme to include non-residential premises
- addition of new prescribed activities
- deletion of prescribed activities
- amendments to the nature and/or abatement value for existing prescribed activities
- the introduction of scheduled activity premises.

The PBA Regulations were introduced on 19 June 2017. They set out the requirements for project-based activities and introduced the first method of calculating energy efficiency savings – measurement and verification.

The guidelines

We issue guidelines under section 74 of the Act to provide a framework for regulatory and administrative processes under the scheme. This includes, but is not limited to:

- how scheme participants can become accredited
- how certificates can be created, registered, transferred, withdrawn or surrendered
- details on how to undertake some prescribed activities
- what occupational health and safety training is required for installers
- the process that retailers captured under the scheme need to follow to surrender certificates
- how we undertake our validation, compliance and enforcement responsibilities
- the records that accredited persons and relevant entities need to keep and provide
- what information we collect for our registers of accredited persons and certificates
- any other matters relevant for us to discharge our duties under the scheme.

Role and functions of the commission

The commission is responsible for administering the Act and regulating the creation of certificates under the scheme. Our responsibilities include to:

- accredit persons who may create certificates
- monitor and enforce compliance of the creation of certificates,
- administer registration, transfer and surrender of certificates
- approve energy efficient products that can be installed under the scheme
- monitor compliance with the Act, Principal Regulations and guidelines
- issue shortfall statements and enforce energy efficiency shortfall penalties
- maintain electronic registers⁹

Accredit persons

Individuals and companies must be accredited under the scheme before they can create certificates. Each business or person that we accredit (known as accredited person) under the scheme is allocated a unique registration number that is publicly available on the Register of Participants on the VEET website. We charge a once-only \$500 fee to cover some of the administrative costs of assessing and accrediting an applicant.

We also process applications for account holders in the scheme. An account holder may trade (that is, buy and sell) certificates but may not create them. All accredited persons must hold accounts. We do not charge a fee to become an account holder.

Administer creation, registration, transfer and surrender of certificates

Certificates are created electronically by accredited persons and we assess their validity before registering them. We adopt a risk based assessment approach. During the assessment process we may issue a request for further information (RFIs) to the accredited persons that created the certificates based on the risk ratings of the accredited person and the activity. We also use 'risk flags' and trends analysis that direct our assessment on claimed certificates.

Our compliance checks include:

- requests for further information seeking supporting evidence for certificates claimed
- random consumer phone audits
- requests for internal field and phone audit results.

Where the information provided by an accredited person is insufficient to demonstrate that certificates have been properly created, we give the accredited person the option of withdrawing the certificates.

For certificates to be registered, the accredited person must pay a \$1 fee per certificate. This fee covers the administrative costs of assessing, registering, transferring, surrendering and auditing certificates. Once paid, the created certificates are registered and available for transfer by its creator. We maintain a publicly accessible register on our website that records the creation, transfer of ownership and surrender of certificates.

Energy retailers captured by the scheme (known as relevant entities) are required to surrender certificates to acquit their required energy efficiency liabilities for a compliance year. They need to offer to surrender sufficient certificates by 30 April of the following year. We require a third-party verified audit of their acquisition statements.

⁹ The registers are maintained at www.veet.vic.gov.au

Approve energy efficient products

Before certificates can be created, we must have approved the product and listed it in our Register of Products. This approval process is intended to provide accredited persons with assurance that the products they intend to install meet scheme requirements. It also streamlines the process for registration of certificates following the installation of the products.

Applications can be made by account holders and must be accompanied by documentary evidence that a product meets the criteria set out in the Principal Regulations. We assess applications and write back to applicants explaining the outcome. If we approve the product, we add it to the Register of Products and accredited persons may use these products to create certificates.

Compliance and enforcement

Our key goal is to safeguard the integrity of the scheme by maintaining confidence in the energy efficiency upgrades delivered to consumers, and providing confidence to participants on a fair and level-playing field. Our regulatory approach is to implement an integrated risk-based framework to all our regulatory activities and to regularly engage with stakeholders to discuss improvements.

We seek to continuously improve the integrity of the scheme whilst managing its expansion and added risks. We build the scheme's integrity through an effective and integrated risk-based compliance program before and after certificate creation and registration. Our tools to build system-wide compliance levels are participant accreditation, participant audits, certificate registration audits and product registration. Our tools to address specific compliance issues are targeted investigations, field audits and independent product testing. The compliance-driven functions we undertake are:

- audits on relevant entity statements to ensure they surrender enough certificates to match their liabilities under the scheme
- interviews and audits of proposed scheme participants before becoming accredited persons or when extending their accreditation
- audits of accredited persons to ensure their systems and processes remain robust and provide confidence in the installations they undertake
- risk-based validations of representative activity batches (maximum 10,000 certificates per batch)
- risk-based audits (phone, desktop or field audits) of the installations undertaken to ensure consumers have received the upgrades registered with us
- registration of products and independent testing of high-volume products that can be installed under the scheme, to ensure they meet the required performance and installation standards.

As per our published compliance and enforcement policy, our approach to enforcement is to resolve any performance issues using administrative tools, where possible and appropriate. This means the largest outcome of our compliance activities is the voluntary withdrawal or surrender of certificates by accredited persons. If we believe that non-compliance has occurred and that an administrative solution is not appropriate or an administrative solution has not been complied with, we may commence enforcement action. Enforcement action may include:

- warning or imposing conditions on an accredited person's accreditation
- requiring an accredited person to surrender certificates found to be improperly created
- suspending or revocation of an accredited person's accreditation to create certificates

- seeking declarations and orders from a Court for a failure to pay a shortfall penalty or a failure to comply with a certificate surrender notice
- initiating a prosecution if a participant fails to comply with certain provisions that are offences under the Act.

Issue shortfall statements and enforce 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 2017, the greenhouse gas reduction rate for electricity was fixed at 0.14901 and the greenhouse gas reduction rate for gas was fixed at 0.00752.

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. This civil penalty is determined by multiplying the relevant entity's certificate shortfall (in tonnes of carbon dioxide equivalent of greenhouse gases) for that year by the prescribed shortfall penalty. In accordance with section 28 of the Act, for 2017 the shortfall penalty rate was fixed at \$46.72 per tonne of carbon dioxide equivalent of greenhouse gases.

Maintain electronic registers

We maintain the following electronic registers associated with operating the scheme as required by the Act, Principal Regulations and PBA Regulations:

- Register of Participants – contains the names and details of accredited persons and account holders
- Register of Victorian Energy Efficiency Certificates – contains information about certificates
- Register of Products – contains information of products that may be used
- Register of Approved Projects Plans – contains information on projects that have been approved in principle under the project-based activities method
- Register of Approved Measurement and Verification professionals – contains the names and details of professionals that can undertake project impact assessment validation functions for project-based activities

We also maintain a Register of Scheduled Activity Premises (a register which contains the sites classified as scheduled activity premises) to provide transparency and clarity for scheme participants in order to determine which premises are SAPs.

These registers are publicly accessible on our website.

Appendix B: Table of certificates created and registered per prescribed activity

Table 18: Prescribed activities undertaken in 2017 – Installations, certificates created and certificates registered

Activity type	Installations	Certificates created	Certificates registered	Installations	Certificates created	Certificates registered
Water heating activities	2017 reporting year			2009 - 2017 reporting years		
	1 Jan 2017 – 31 Dec 2017			1 Jan 2009 – 31 Dec 2017		
1A – Gas/LPG storage replacing electric	169	6,885	6,843	4,873	194,334	193,196
1B - Gas/LPG instantaneous replacing electric	1,365	59,194	62,744	20,537	877,115	869,221
1C - Electric boosted solar replacing electric	-	-	-	19,171	812,166	811,226
1D - Gas/LPG boosted solar replacing electric	-	-	-	6,505	393,007	387,623
1E - Electric boosted solar replacing electric	6,317	290,831	303,403	13,871	632,552	584,762
1F - Gas/LPG boosted replacing electric	84	5,101	4,786	764	45,277	44,065
2 - Installing solar retrofit on electric	-	-	-	7	155	155
3 - Gas/LPG boosted solar replacing gas/LPG	54	574	549	9,593	100,534	100,088
4 - Installing solar pre-heater on gas/LPG	-	-	-	3	21	21
Space heating & cooling activities	2017 reporting year			2009 - 2017 reporting years		
	1 Jan 2017 – 31 Dec 2017			1 Jan 2009 – 31 Dec 2017		
5 - High efficiency ducted replacing ducted gas	424	5,264	5,789	5,096	64,295	64,034
6 - High efficiency ducted gas replacing central electric resistance	50	13,646	13,313	2,294	647,583	625,423
7 - High efficiency ducted air heat pump replacing ducted air to air heat pump	-	-	-	1	6	6
8 - High efficiency ducted air heat pump replacing central electric resistance	6	942	834	38	6,113	5,639
9 - Installing flued gas/LPG space heater	157	1,804	1,958	2,848	23,801	23,756
10 - Installing space air to air heat pump	49	543	531	59	646	610
20 – Installing a high efficiency ducted gas heater	56	329	354	606	3,570	3,566
23 – Ducted evaporative cooler replacing refrigerative air conditioner	-	-	-	-	-	-

Activity type	Installations	Certificates created	Certificates registered	Installations	Certificates created	Certificates registered
28 – Replacing gas heating ductwork	2	34	34	857	16,278	508
Space conditioning activities	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
11 – Ceiling insulation	-	-	-	1,168	56,918	56,918
12 – Under floor insulation	-	-	-	1	17	17
13 – Replacing external window	-	-	-	1	81	81
14 - Retrofit of external window	-	-	-	-	-	-
15 - Weather sealing	2,486	4,416	5,386	342,318	1,166,576	1,074,207
Lighting activities	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
16 – Installing low energy lamp	-	-	-	555,181	5,270,073	5,107,907
21A – Replacing incandescent GLS lamp	13,764	202,411	247,984	407,894	4,035,884	3,555,338
21B – Replacing incandescent reflector lamp	28,165	134,596	153,101	117,378	516,595	459,061
21C – Replacing 12 volt halogen lamp	8,860	154,502	189,131	352,238	7,751,087	7,562,039
21D – Replacing 12 volt halogen downlight fitting	2,243	22,033	18,499	42,713	724,217	701,259
21E – Replacing mains voltage halogen lamp	2,946	36,937	53,559	25,191	330,405	313,554
21F – Replacing mains voltage halogen fitting	-	-	-	-	-	-
34 – Lighting upgrade	23,318	7,455,268	6,701,856	45,054	13,145,781	10,783,508
Shower rose activities	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
17 – Low flow shower rose	6,793	23,536	23,383	389,716	1,199,122	1,122,813
Refrigerator/freezer activities	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
18 / 22 – Purchasing refrigerator/ freezer	13	34	34	261	504	500
19 - Destruction of refrigerator or freezer	9,338	44,439	43,911	98,092	448,324	438,361
Standby power controller activities	2017 reporting year 1 Jan 2017 – 31 Dec 2017			2009 - 2017 reporting years 1 Jan 2009 – 31 Dec 2017		
29 – Installing stand-by power controller	1,072	3,307	3,352	1,410,280	11,389,119	10,165,883

Activity type	Installations	Certificates created	Certificates registered	Installations	Certificates created	Certificates registered
Other activities	2017 reporting year			2009 - 2017 reporting years		
	1 Jan 2017 – 31 Dec 2017			1 Jan 2009 – 31 Dec 2017		
24 – Purchasing high efficiency television	826	4,620	5,001	25,116	129,387	125,358
25 – Purchasing high efficiency clothes dryer	12	52	57	77	315	315
26 – Installing high efficiency pool pump	-	-	-	899	7,298	7,266
30 – Installing in-home display unit	490	1,067	8,696	53,469	120,929	118,752
31 – Installing high efficiency motor	-	-	-	0	0	0
32 – Installing high efficiency refrigerated display cabinet	148	59,541	55,138	166	64,374	56,183
33 – Replacing refrigerator fan	1	123	123	39	3,078	1,737
35 – Low flow trigger nozzle	-	-	-	0	0	0
36 – Water efficient pre-rinse spray valve	-	-	-	7	59	0
Total	109,208	8,532,029	7,910,349	3,954,382	50,177,596	45,364,956

NOTE: After creation, certificates are assessed against criteria in the legislation before being validated and registered, which accounts for apparent discrepancies in the table between created and registered certificates. The status of all certificates, including those pending registration validation, pending registration payment and withdrawn, are listed on the VEET website at www.veet.vic.gov.au and updated daily.

Appendix C: Regulatory changes

Commencement Date	Regulation reference	Amendments Made
1 January 2017	Schedule 24 (updated)	<ul style="list-style-type: none"> • Changes to the minimum performance standards for products installed under these schedules • Changes in the number of certificates awarded for activities undertaken under these schedules
19 June 2017	PBA regulations (new)	<ul style="list-style-type: none"> • Introduced a new set of regulations which sit alongside the 2008 Principal Regulations. • Sets out the requirements for project-based activities Introduced the first method, measurement and verification, setting out the requirements for participating in this activity method under the scheme
1 July 2017	Schedule 15 (updated)	<ul style="list-style-type: none"> • The introduction of two new sub-schedule activities • Changes to the number of certificates awarded for activities • Changes to product requirements
1 August 2017	Provisions relating to scheduled activity premises (SAP), including new Schedule 37	<ul style="list-style-type: none"> • Provide arrangements for SAPs allowing them to remain excluded from the VEET scheme or to opt-in if they wish. • SAPs that opt-in are able to generate certificates under the scheme. • SAPs that 'opt-in' also become prescribed customers for the purposes of the definition of scheme acquisition in the Act (i.e. these premises will create liabilities for their energy retailer under the scheme). The premises becomes a prescribed customer on 1 January of the second calendar year after the calendar year in which a certificate is first registered. • Introduces new schedule 37 which provides list of addresses of SAPs