



# VEET Performance Report 2016

Victorian Energy Efficiency Target scheme

August 2017



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# Contents

Summary	iv
Performance overview	iv
Performance outcomes for 2016	v
Key administration activities	v
About this report	vii
1. Our participants	1
2. VEECs in 2016	3
2.1. VEEC transactions during the year	3
2.2. More VEECs in non-residential premises than residential premises	6
2.3. Melbourne metropolitan region the focus	7
2.4. Lighting activities the main activity	7
2.5. VEEC status	11
3. Participant compliance with scheme requirements	13
3.1. Audits for accreditation and additional activity approval	14
3.2. Pre-registration investigations	14
3.3. Desktop and field audits of sites	14
3.4. Detailed audits of accredited persons	15
3.5. Audit investigations	16
3.6. Consumer complaints	17
3.7. Relevant entities' annual liability calculations	17
3.8. Product applications and approvals	18
4. Scheme administration	20
4.1. Changes to the scheme's regulatory framework	20
4.2. Administrative reviews in 2016	21
4.3. Non-building based lighting requirements	22
4.4. Requirements for project-based activities	23
4.5. Changes to the product approval process	23
4.6. Product testing	24
4.7. Enhancements to the IT system	25
4.8. Working with scheme participants	26
4.9. Working with other government agencies	26
Glossary	27

Appendix A: VEET scheme framework	29
Background	29
Legislative framework	30
Our role and functions	31
Appendix B: Table of VEECs created and registered per prescribed activity	35
Appendix C: Regulatory changes	39

# Summary

The Essential Services Commission (the commission) is responsible for administering the Victorian Energy Efficiency Target (VEET) scheme. Established in 2009, the scheme is a Victorian Government initiative that aims to promote the reduction of greenhouse gas emissions by encouraging the efficient use of electricity and gas in the residential and non-residential sectors.

Under the scheme, relevant entities are required to surrender Victorian energy efficiency certificates (VEECs) to meet the scheme target on an annual basis. The scheme target for 2016 was set at 5.4 million VEECs, representing an abatement of 5.4 million tonnes of greenhouse gases.

For the 2016 compliance year, all 25 relevant entities surrendered sufficient VEECs to meet their individual liabilities against the scheme target. This resulted in 5,263,089 VEECs being surrendered by the relevant entities to fully acquit their liabilities. The liability of a relevant entity is calculated by multiplying the greenhouse gas reductions rates<sup>1</sup> with their actual scheme acquisitions<sup>2</sup> for the year.

## Performance overview

The VEET scheme continues to be very successful in providing Victorian consumers with cost effective and energy efficient products and services. Certificate creation and registration for 2016 exceeded the required target of 5.4 million, giving certainty to relevant entities that there would be VEECs available to meet their liabilities.

During 2016, we continued to undertake an effective validation program of created VEECs involving risk-based assessments and pre-registration investigations of created certificates. This program resulted in accredited persons withdrawing VEECs that were found to have errors in their creation. Additionally, our compliance program involving audits and audit investigations also found accredited persons not completing activities in compliance with scheme requirements. Our compliance efforts resulted in the surrender of improperly created certificates.

These validation and compliance activities give confidence that the scheme awards certificates where genuine energy savings have occurred, in compliance with the scheme requirements.

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<sup>1</sup> Greenhouse gas reduction rates are set annually by ministerial order under the *Victorian Energy Efficiency Target Act 2007* (the Act) based on projected estimates of scheme acquisitions for the 2016 year.

<sup>2</sup> 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.

We work hard to ensure that the right administration framework and IT systems are in place to support the scheme's planned growth. The outcomes of 2016 have shown that the VEET scheme is well administered with effective processes, active participants and a strong compliance program.

## Performance outcomes for 2016

Table 1 outlines the key scheme performance measures for 2016.

**Table 1: Key scheme performance measures - 2016**

Activity	2016
VEECs created by accredited persons	8,673,958
VEECs registered	7,575,393
VEECs surrendered by relevant entities	5,263,089
VEECs surrendered by accredited persons	51,387
VEECs withdrawn by accredited persons	624,181
VEET accounts created (scheme total of 1,778 accounts)	205
Accredited persons approved (scheme total of 200 persons)	13
Energy saving products approved (scheme total of 9,275 products)	1,843

Our compliance and validation work in 2016 included:

- 10 pre-accreditation and 14 additional activity approval audit meetings
- 11 pre-registration investigations, resulting in VEECs being withdrawn by accredited persons
- 63 desktop audits and 318 field audits completed
- audit investigations of 15 accredited persons, resulting in VEECs being surrendered by accredited persons
- 17 detailed audits to assess the effectiveness of an accredited person's processes and controls.

## Key administration activities

In 2016, we successfully implemented new administrative requirements to support the introduction of regulatory changes to the scheme on 1 January, 1 February, 1 March and 4 April. We also undertook a number of reviews during the year that focused on insulation activities, the requirements for schedule 34 lighting upgrade activity, our guidelines (*The Victorian Energy Efficiency Target Guidelines*) and mandatory safety training requirements.

We made a considerable effort to support the introduction of non-building based lighting activities into the scheme. In 2016, we completed a multi-stage release of requirements for various space types (public and outdoor spaces, open air car parks, and sporting fields, tunnels and underpasses). We also worked with the Department of Environment, Land, Water and Planning (DELWP) to develop administrative requirements and Regulations for project-based activities that will provide methods for accessing certificates for large and custom projects.

In the products area, we undertook a number of initiatives during the year. This included making improvements to streamline the product approval process.

Our work program was supported by changes to the IT system. These changes were designed to facilitate new administrative requirements and create a better website experience for VEET account holders and our staff. We will continue to invest in improving our business processes and IT systems in the coming year.

## About this report

This performance report details the operation and administration of the Victorian Energy Efficiency Target (VEET) scheme for the 2016 reporting year. The VEET scheme was established under the *Victorian Energy Efficiency Target Act 2007* (the Act) and started on 1 January 2009. This is the eighth annual performance report we have produced since the inception of the scheme in 2009.

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 also designed to foster investment, employment and technological progress in industries that supply goods and services which reduce energy consumption.

The scheme works by setting an annual target of greenhouse gas abatement, and by placing 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 which 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* (the Principal Regulations).<sup>3</sup> Once created and registered, certificates can be traded and sold 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 administration of the VEET scheme for the 2016 reporting year:

- our assessment of applications for new accounts and accreditation applications under the scheme
- 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 delivered to facilitate the administration of the scheme during the year.

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<sup>3</sup> 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.

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.

**Table 2: Information required to be published for the 2016 reporting year**

Information to be published	Measure
Relevant entities that had an energy efficiency certificate shortfall	0
Amount of each relevant entity's energy efficiency certificate shortfall	n/a
Total of energy efficiency certificate shortfalls	n/a
VEECs created in 2016 (1 January to 31 December)	8,673,958
VEECs surrendered by relevant entities for the 2016 compliance year	5,263,089
VEECs surrendered by accredited persons in 2016 (1 January to 31 December)	51,387

### Sources

Unless indicated otherwise, all graphs and tables have been produced by the Essential Services Commission using data based on the 2016 calendar year.

# 1. Our participants

**At a glance:** There has been a steady increase in new VEET accounts and accredited persons approved for 2016.

We administer 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 VEECs. Only ‘accredited persons’<sup>4</sup> approved by the commission are able to create VEECs. To apply to be an accredited person, the applicant must hold a VEET account.

In 2016, 205 new accounts were created and we approved 13 ‘accredited person’ applications. Table 3 shows the numbers of accounts and accredited persons approved in 2016 and the total number of accounts and accredited persons approved since 2009.

**Table 3: Scheme accounts and accreditations**

Accounts and accreditations	2016	Total (2009–2016)
Accounts created	205	1,778
Accredited persons approved	13	200

Figure 1 (on the following page) shows the change by year in the number of VEET accounts since 2009.

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<sup>4</sup> This is the term used by the Act to describe a person or persons accredited to operate in the scheme.

**Figure 1: Number of VEET accounts by year - 2009 to 2016**

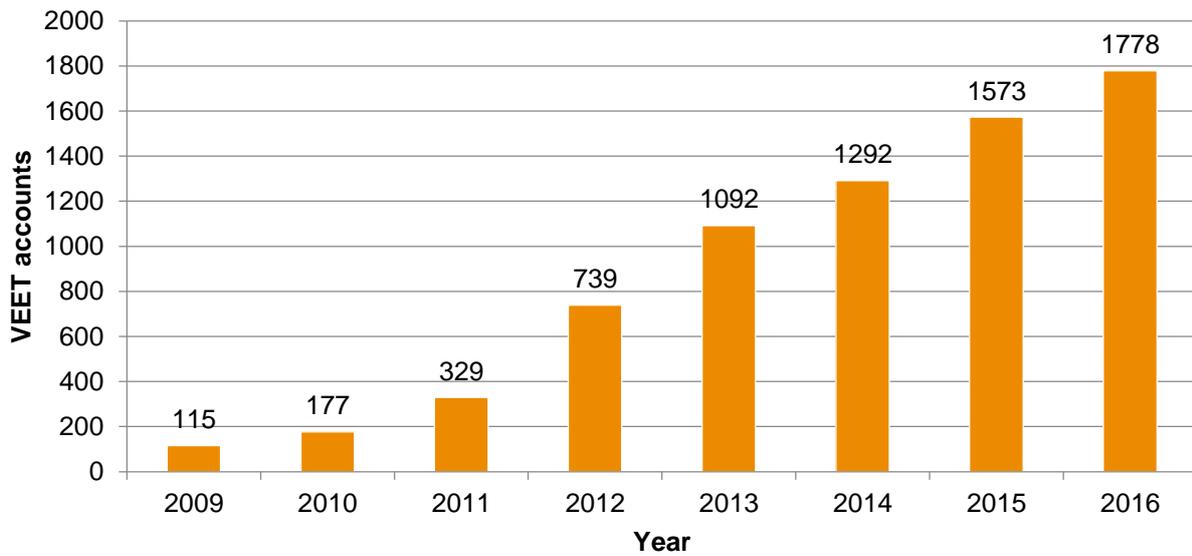
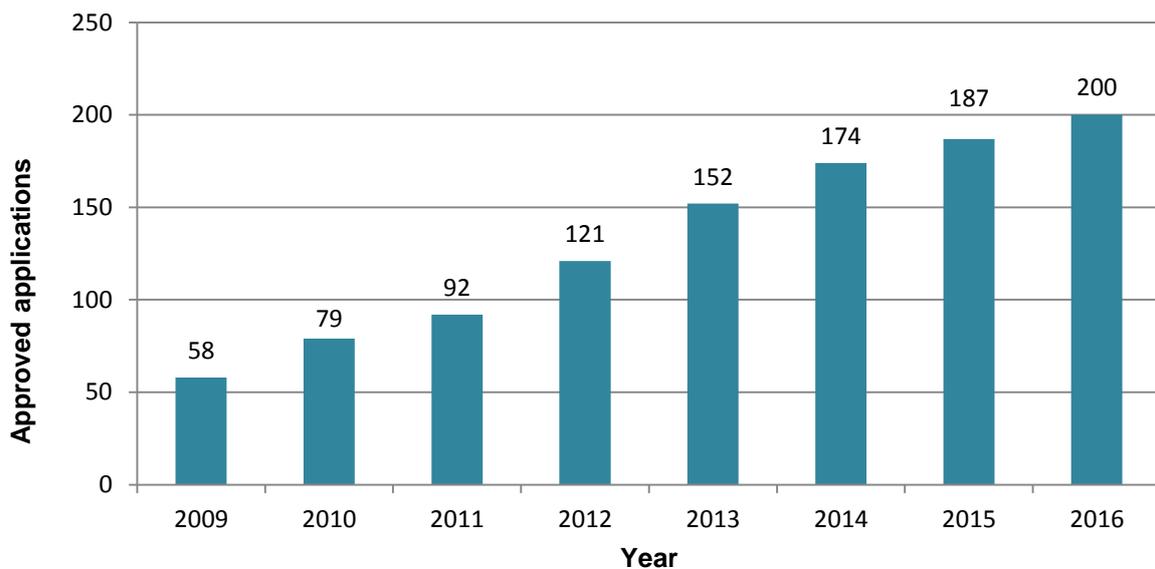


Figure 2 shows the change by year in the number of accredited persons since 2009. There has been a steady increase in the number of accredited persons from year to year. By the end of 2016, we have approved 200 accredited person applications, of which 195 persons held a valid accreditation. During the scheme's operation, two accreditations have been revoked by the commission and three have been cancelled by the accredited person.

**Figure 2: Number of approved accredited person applications - 2009 to 2016**



## 2. VEECs in 2016

### 2.1. VEEC transactions during the year

**At a glance:** The number of VEECs registered in 2016 exceeded the scheme target of 5.4 million for the year.

Accredited persons can create VEECs by completing certain energy efficiency upgrades for consumers (residential and non-residential). These upgrades are known as ‘prescribed activities’ and must be completed in accordance with the Act, the Principal Regulations and the guidelines. We are responsible for ensuring that all relevant statutory requirements are met and that created VEECs are eligible for registration.

Table 4 provides the number of VEECs created, registered, withdrawn, refused and surrendered in 2016, and since the scheme started in 2009.

**Table 4: VEECs created, registered, withdrawn and surrendered**

VEEC transactions in 2016	2016	Total (2009 – 2016)
VEECs created	8,673,958	41,645,690
VEECs withdrawn by accredited persons	624,181	2,721,747
VEECs registered by the commission	7,575,393	37,454,607
VEECs refused registration	0	117,355
VEECs surrendered by relevant entities*	5,263,089	35,272,847
VEECs surrendered by accredited persons	51,387	204,544

\* VEECs surrendered by relevant entities in connection to their 2016 liability

We must assess created VEECs before they are registered. We take a risk-based approach to assessing created VEECs and include an eligibility check that is based on relevant requirements. Depending on the activity, this assessment may include a review of the activity’s assignment form, assessment of certificates of electrical safety, or photographic evidence. This process helps us ensure that created VEECs qualify to be registered.

Accredited persons may be required to provide evidence to verify the activity data and show that the created VEECs meet the relevant requirements. An accredited person may choose to withdraw the activity if they are not able to provide evidence that the activity occurred as claimed. In 2016, over 600,000 VEECs were withdrawn by accredited persons.

A high proportion of these withdrawn VEECs (especially those relating to schedule 34 lighting upgrade activities) were resubmitted by the accredited person at a later date, with the required evidence and/or amended data to support the creation claims. A number of these VEECs were withdrawn as a result of pre-registration investigations (see section 3.2 below) due to non-compliance with scheme requirements.

We register VEECs that meet the requirements of the scheme. In 2016, we registered over 7.5 million VEECs, which can then be traded on the VEEC market. We may refuse VEEC registration if we establish that a VEEC has not been created correctly. No VEECs were refused registration in 2016.

Registered VEECs are subject to obligatory surrender by relevant entities, or voluntary or mandatory surrender by accredited persons.<sup>5</sup> Any surrendered VEEC is retired from the scheme and cannot be traded.

Over 5.2 million VEECs were surrendered by the relevant entities with obligations under the VEET scheme in 2016. Under the Act, 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 VEECs a relevant entity must surrender is based on the organisation's scheme acquisitions for the year.

Over 50,000 VEECs were surrendered by accredited persons during the year as part of a voluntary surrender process. As part of our compliance approach, we work with the accredited person to seek administrative solutions to rectify any problems with how they have complied with scheme requirements. An accredited person may offer certificates for voluntary surrender as part of this approach. The commission may also seek to apply an enforcement remedy where an administrative solution cannot be reached.

Table 5 shows how many VEECs were created for the 12 months from 31 January 2016 to 30 January 2017. Section 34 of the Act allows relevant entities to surrender VEECs that have been created before 31 January 2017 in relation to the 2016 compliance year.

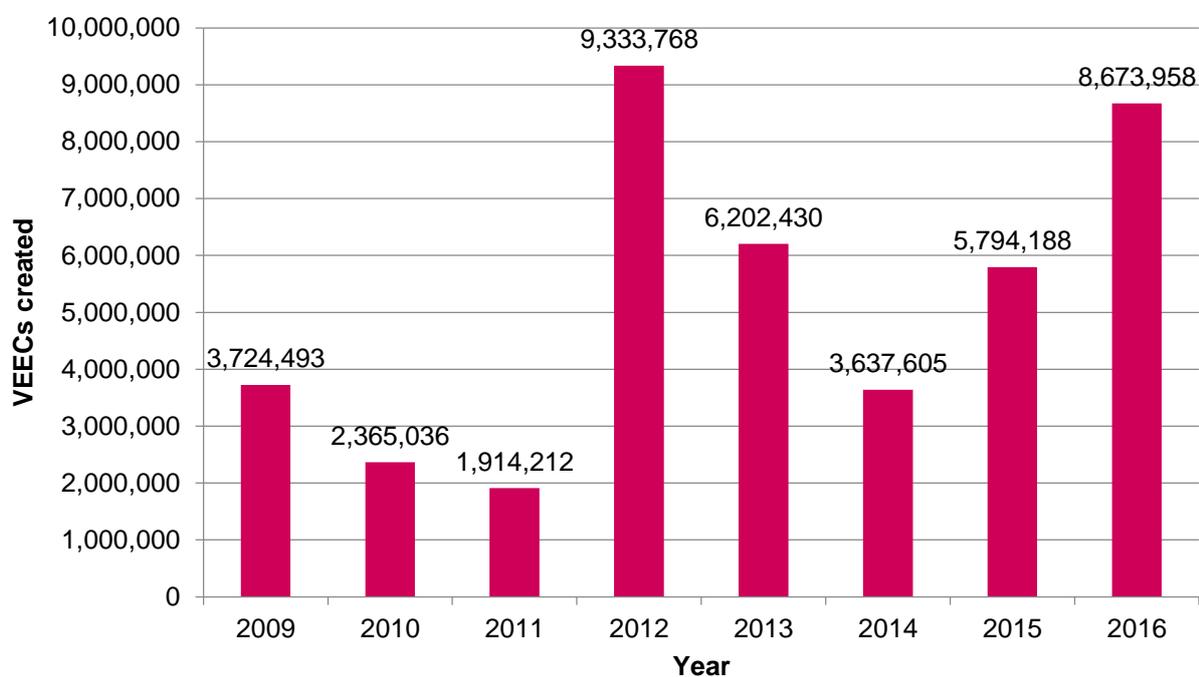
**Table 5: VEECs created – 31 January 2016 to 31 January 2017**

Activity	2016
VEECs created by accredited persons (31 January 2016 to 30 January 2017)	8,754,076

<sup>5</sup> 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 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.

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

**Figure 3: VEECs created by year – 2009 to 2016**



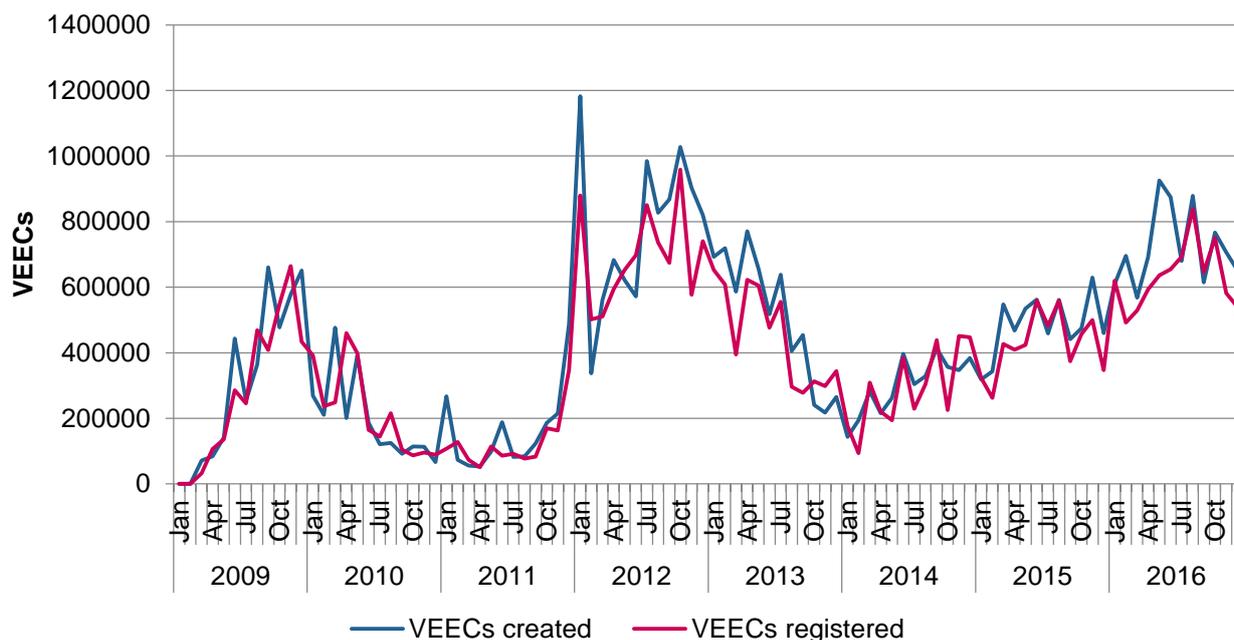
The number of VEECs created needs to be viewed in the context of the annual scheme target set for that year:

- The first three-year phase of the scheme (2009-2011) had a target of 2.7 million VEECs per annum.
- The second three-year phase of the scheme (2012-2014) had a target of 5.4 million VEECs per annum.
- The target in 2015 and 2016 was 5.4 million VEECs per annum.
- The target for 2017 is 5.9 million VEECs, and increasing to 6.5 million VEECs in 2020.

The number of VEECs created in 2016 increased by 50 per cent compared to 2015, making it the second largest creation year since the scheme began. During 2015 and 2016, accredited persons created 88 per cent of the VEECs required to meet the scheme target of 16.7 million VEECs for the 2015–2017 compliance years.

Figure 4 charts the number of VEECs created and registered on a monthly basis from 1 January 2009 to 31 December 2016.

Figure 4: VEECs created and registered by month – January 2009 to December 2016



## 2.2. More VEECs in non-residential premises than residential premises

**At a glance:** Almost 60 per cent of VEECs created were for non-residential activities.

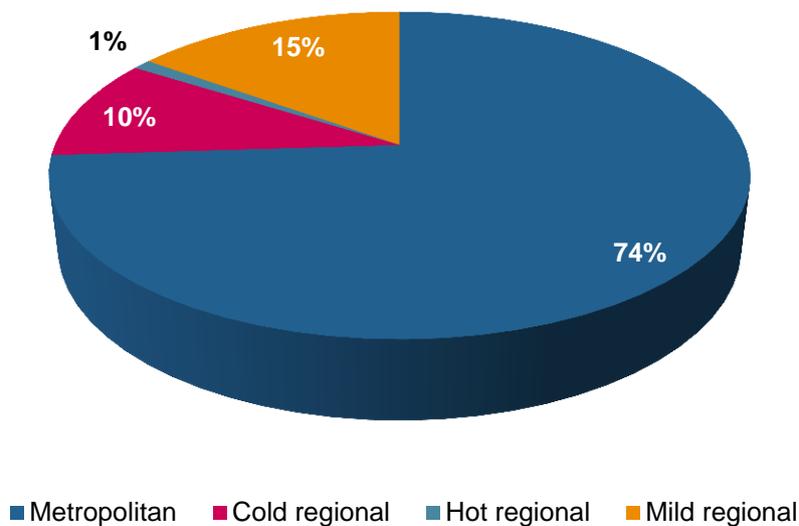
In 2016, VEECs were created by accredited persons undertaking one of the 33 energy efficiency activities outlined in the Principal Regulations at residential or non-residential premises. Activities were undertaken in more than 25,000 non-residential premises, resulting in the creation of around 4,948,000 VEECs, or 57 per cent of all VEECs. More than 241,800 residential households had energy efficiency activities carried out, resulting in the creation of more than 3,725,000 VEECs. Some of these households had more than one activity undertaken at their homes.

### 2.3. Melbourne metropolitan region the focus

**At a glance:** Almost 75 per cent of VEET activities undertaken were in the Melbourne metropolitan region.

Seventy-four per cent of VEET activities in 2016 were undertaken in the Melbourne metropolitan region. Figure 5 shows the breakdown across each of Victoria's four climate regions.<sup>6</sup>

**Figure 5: Split of activities by climate region – 2016**



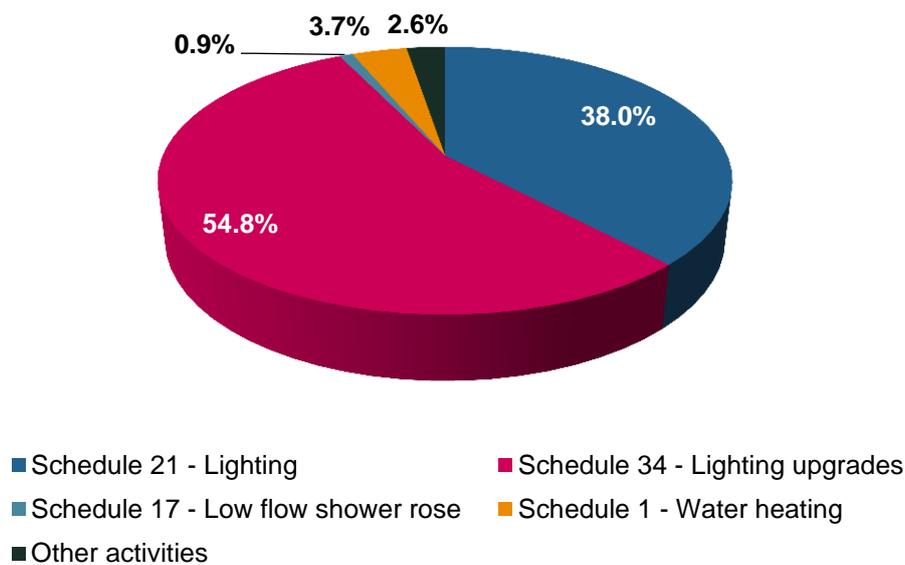
### 2.4. Lighting activities the main activity

**At a glance:** Lighting activities accounted for over 90 per cent of VEECs created in 2016.

The most common activities carried out by accredited persons in 2016 were lighting activities, which are listed under schedule 21 and schedule 34 of the Principal Regulations. Figure 6 shows the VEECs registered for all activities. Over 90 per cent of all VEECs created in 2016 were from lighting activities.

<sup>6</sup> Schedule 27 of the Principal Regulations defines the four climate regions in Victoria by postcode.

Figure 6: VEECs created by activity – 2016



Schedule 34 was introduced into the VEET scheme in 2012 and refers exclusively to lighting upgrade activities in non-residential premises. In 2016, the activity's requirements were changed to include variable annual operating hours based on the type of space the activity was undertaken in. The type of space is based on the Building Code of Australia building classifications and associated references. The change to the annual operating hours meant that some types of space (e.g. retail, warehousing and health care) received more VEECs than others. This has resulted in significant growth in 2016 for these lighting upgrade activities.

Figure 7 shows the VEECs created for all lighting activities from 2012 to 2016. From 2015 to 2016, the number of schedule 34 lighting upgrade activities increased from 1,635 to 18,446. The number of VEECs created for these activities grew from 8 per cent in 2015 to 54 per cent in 2016.

**Figure 7: VEECs created for lighting activities - 2012 to 2016**

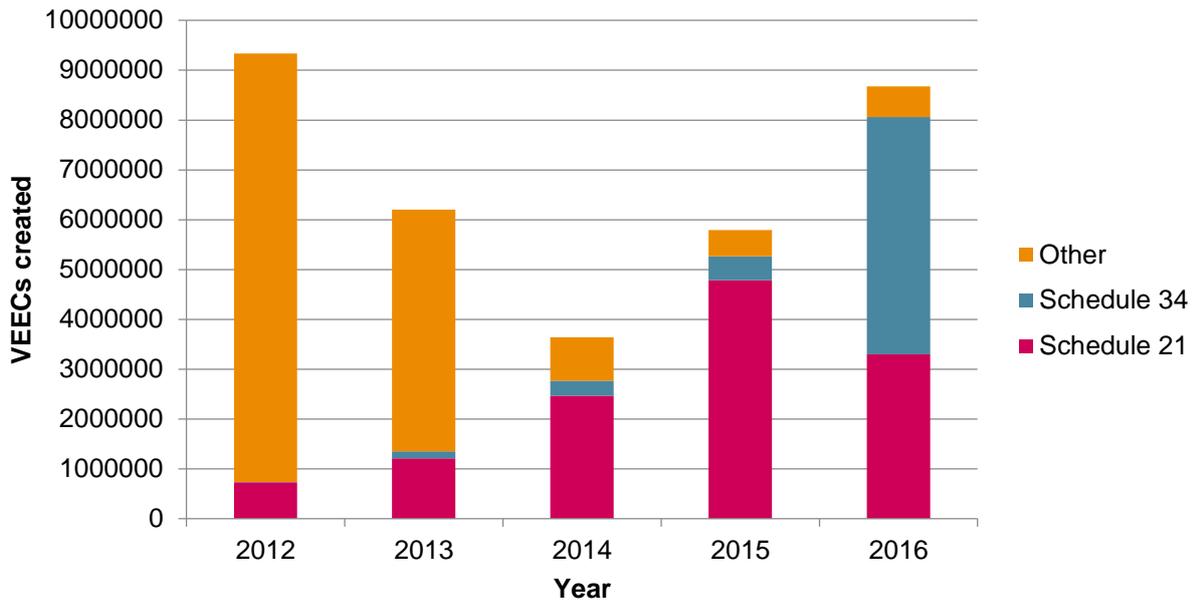


Figure 8 shows the number of VEECs created per month for schedule 34 lighting upgrades in 2016. On average, 257 VEECs were created for every schedule 34 activity.

**Figure 8: Monthly VEEC creations for schedule 34 activities - 2016**

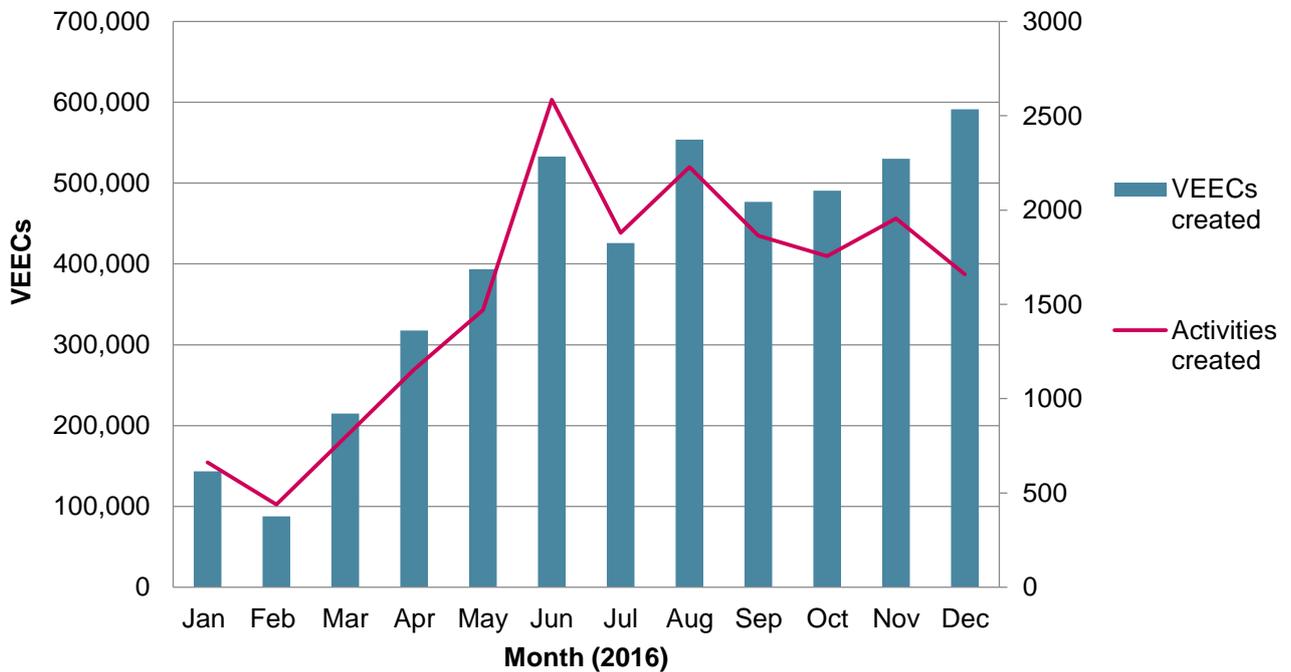


Table 6 shows the top 10 activities for 2016 based on the number of VEECs created. As noted above, lighting activities account for the majority of VEECs created in 2016. While schedule 34 lighting upgrade activities created the highest number of VEECs, schedule 21C (replacing 12 volt halogen lamps with low energy lamps) had the highest number of activities undertaken with

107,669 installations. There was a notable increase in schedule 21B (replacing incandescent reflector lamps with low energy reflector lamps) activities which was the fourth highest activity with 345,457 VEECs created (compared with 36,542 in 2015).

Water heating activities under schedules 1E and 1B featured in the top ten activities for 2016. In 2016, there was a notable increase in schedule 1E (replacing electric resistance water heater with electric boosted solar) activities with 211,908 VEECs created (compared with 49,415 VEECs in 2015). Other notable activities were schedule 17 (installation of low-flow shower roses) activities and schedule 24 (purchase of high efficiency televisions) activities.

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

**Table 6: VEECs created – top 10 activities for 2016**

Activity type	VEECs created	VEECs registered	Installs	VEECs created	VEECs registered	Installs
	2016 reporting year 1 Jan 2016 – 31 Dec 2016			2009 - 2016 reporting years 1 Jan 2009 – 31 Dec 2016		
34 – Lighting upgrade	4,758,881	3,443,950	18,446	5,690,636	4,081,652	21,737
21C – Incandescent lighting – retrofit of 12 volt halogen lamp	1,973,081	2,378,780	107,669	7,596,585	7,372,908	343,378
21A – Incandescent lighting – GLS lamps	599,298	500,968	50,567	3,833,473	3,307,354	394,130
21B – Incandescent lighting – reflector lamps	345,457	305,390	80,875	381,999	305,960	89,213
21E – Incandescent lighting – replacing mains voltage halogen lamp	293,468	259,995	22,245	293,468	259,995	22,245
1E - electric boosted solar replacing electric	211,908	158,824	4,519	341,721	281,359	7,554
1B - Decommissioning electric and installing gas/LPG instantaneous	94,985	95,405	2,193	817,921	806,477	19,172
21D – Incandescent lighting – replacement of 12 volt halogen fitting	89,369	131,017	9,278	702,184	682,760	40,470
17 - Shower rose	76,315	75,954	23,403	1,175,586	1,099,430	382,923
24 – Purchase of high efficiency televisions	47,582	48,963	7,959	124,767	120,357	24,290
Other Activities	183,614	176,147	46,461	20,687,350	19,136,355	2,500,063
<b>Total</b>	<b>8,673,958</b>	<b>7,575,393</b>	<b>373,615</b>	<b>41,645,690</b>	<b>37,454,607</b>	<b>3,845,175</b>

VEECs in 2016

## 2.5. VEEC status

**At a glance:** More than 3 million certificates are available for trade and/or surrender in the scheme.

Over 41.6 million VEECs have been created since the start of the scheme **to the end of 2016**, representing more than 41 million tonnes of greenhouse gas abatement. Of that, approximately 3.1 million VEECs are registered as at 17 July 2017 and available for trade or surrender in 2017 and beyond.

Table 7 includes the status (as at 17 July 2017) of all VEECs created from 1 January 2009 to 31 December 2016. Created VEECs assume a number of different statuses as part of the certificate lifecycle, depending on its stage of review. An accredited person can withdraw created VEECs with status 'pending registration'. We can also accept, register or reject 'pending registration' VEECs.

VEECs that are registered can be traded on the VEEC market or surrendered as a result of an obligatory, voluntary or mandatory surrender. Registered VEECs expire six years after the prescribed activity that generated them was undertaken. Surrendered and expired VEECs are retired from the scheme and are not able to be traded.

**Table 7: Status of VEECs created**

VEEC status	VEECs created 1 Jan 2009 – 31 December 2016
Total VEECs created	41,645,690
<b>Status of created VEECs (as at 17 July 2017)</b>	
Pending registration	154,631
VEECs withdrawn by accredited persons	2,746,061
VEECs withdrawn by the commission*	44,291
Registered	3,097,222
Registration refused	117,355
Retired due to obligatory surrender	35,272,847
Retired due to voluntary surrender	213,118
Retired due to expiry**	165

\* VEECs withdrawn by the commission were a result of a processing error.

\*\* A registered certificate expires in line with section 23(1)(a) of the Act if it is not surrendered before the sixth anniversary of the day that the prescribed activity was undertaken

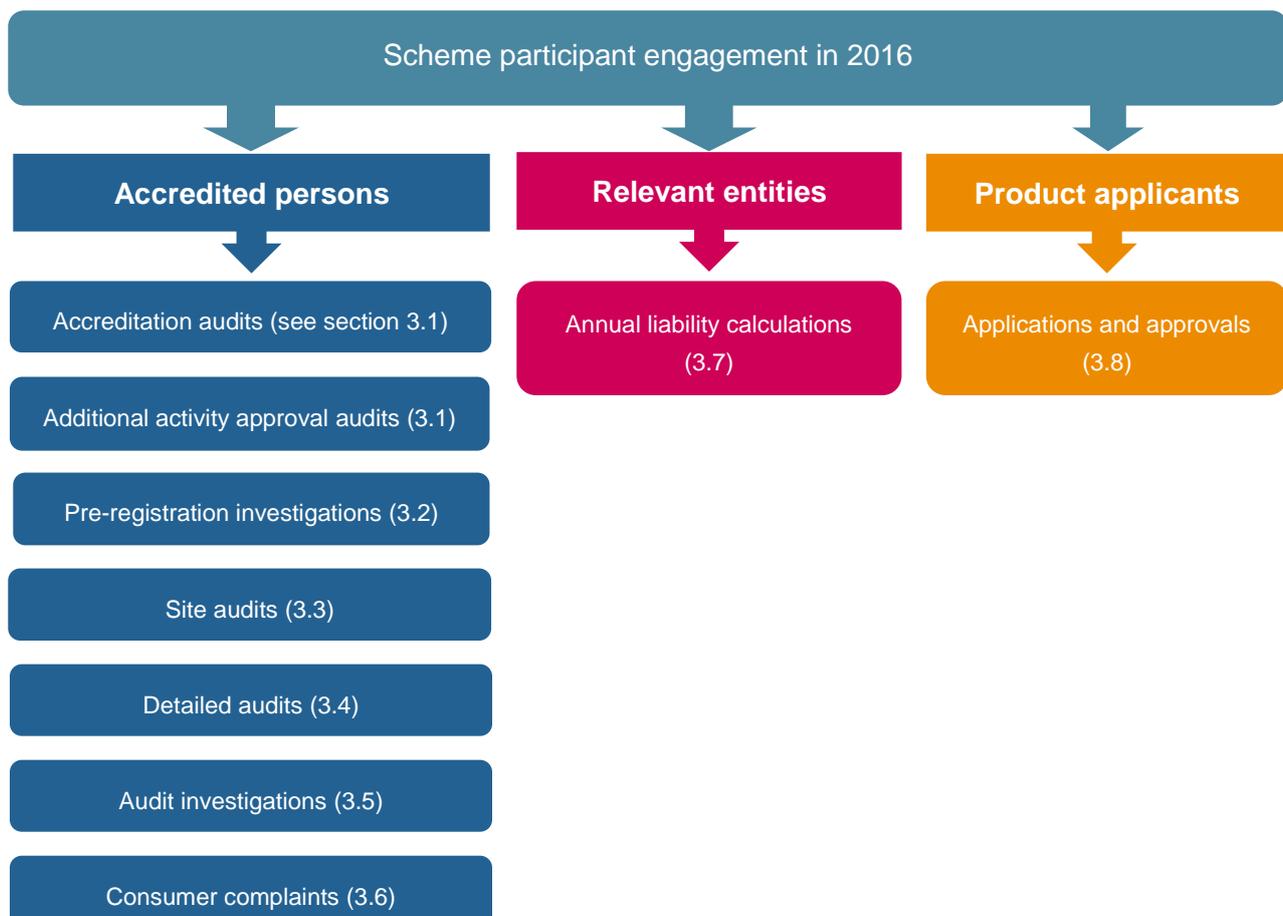
### 3. Participant compliance with scheme requirements

Our main responsibility is to make sure that scheme participants (accredited persons, relevant entities, and product applicants) comply with the requirements of the Act, Principal Regulations and guidelines. This leads to effective scheme administration and helps to maintain scheme integrity. We undertake different types of compliance activities based on the type of scheme participant:

- For accredited persons, we complete different types of audit activities and investigations. We also respond to consumer complaints by investigating accredited persons and their activities.
- For relevant entities, we review their audited annual energy acquisition statements, which detail the amount of electricity and/or gas they acquired during reporting years.
- For product applicants, we set approval requirements and processes that must be met before the product is approved.

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

**Figure 9: Compliance activity by type of scheme participant**



### 3.1. Audits for accreditation and additional activity approval

**At a glance:** In 2016, we held 10 pre-accreditation audit meetings and 14 audit meetings for additional activities approval.

We organise a pre-accreditation audit meeting with anyone applying to be an accredited person in the VEET scheme. We also have audit meetings with existing accredited persons if they have applied for approval to perform additional activity types in the scheme. These audits allow us and the accredited person to discuss the expectations and requirements of related 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 a person's compliance performance. This process enables us to adopt a risk-based approach when we assess VEECs and plan our audit and investigation program.

### 3.2. Pre-registration investigations

**At a glance:** Over 1,400 consumers were called during 11 investigations, with over 11,200 VEECs withdrawn in 2016 because of non-compliance with scheme requirements.

We complete pre-registration investigations when we have identified potential non-compliance with scheme requirements in VEEC creation claims. Our investigations may be triggered during the validation of an accredited person's VEECs, information from consumers or other accredited persons, or the poor compliance history of an accredited person.

In 2016, we contacted more than 1,400 Victorian consumers during 11 pre-registration investigations. These investigations resulted in more than 11,200 VEECs being withdrawn by accredited persons because of non-compliance with scheme requirements.

### 3.3. Desktop and field audits of sites

**At a glance:** Over 300 field audits of sites completed by authorised officers in 2016.

We use desktop and field audits to assess compliance of sites that have received activity upgrades through the VEET scheme. We review specific evidentiary documents to support certificate creation during a desktop audit, and inspect premises where installations have occurred during a field audit. Our desktop and field audits feed into our detailed audits and investigations of accredited persons.

In 2016, we completed 63 desktop audits and 318 field audits. Desktop audits were for activities involving water heating and lighting. Field audits were for activities involving water heating, weather sealing, low-flow shower roses and lighting. Our field audits also included 61 sites that had been subject to a schedule 34 lighting upgrade.

### **3.4. Detailed audits of accredited persons**

**At a glance:** We completed 17 detailed audits.

Our auditing program focuses on both random and targeted audits of accredited persons. The purpose of a detailed audit is to perform a detailed assessment of the accredited person's systems, processes and controls. As part of these detailed audits, we interview key personnel and installers to gain assurance that they are participating in accordance with scheme requirements.

We completed 17 detailed audits of accredited persons in 2016, with a focus on lighting installations completed under schedules 21 and 34. This audit program covered accredited persons who were responsible for 68 per cent of VEECs created during the year. As part of these audits, we contacted 2,095 consumers to assess compliance and consumer satisfaction. These detailed audits resulted in over 2,400 VEECs being surrendered by accredited persons due to findings of non-compliance.

Each of the top five VEEC creators for 2016 was subject to a detailed audit. These five creators represent almost half of all VEECs created in 2016.

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.

One significant detailed audit identified that legacy lighting control gear had not been decommissioned. This audit resulted in a voluntary surrender of 515 VEECs and the accredited person being required to rectify non-compliant activities (i.e. the accredited person having to decommission the legacy lighting control gear for claimed activities in accordance with the requirements of the scheme).

Once we have audited an accredited person, we provide them with an audit report. We do this to formally communicate any findings of non-compliance and recommendations that will help them create certificates in accordance with the Act, Principal Regulations and guidelines. We then monitor the accredited person to ensure they implement all the audit recommendations within a set timeframe.

**Table 8: Number of detailed audits involving consumer phone calls – 2016**

Type of compliance	Number
Detailed audits	17
Consumer phone calls	2,095

### 3.5. Audit investigations

**At a glance:** We investigated 15 accredited persons, with more than 14,000 VEECs surrendered.

We conduct audit investigations when we become aware of potentially significant non-compliance with scheme requirements. In 2016, we undertook audit investigations that involved 15 accredited persons, resulting in the voluntary surrender of 14,772 VEECs.

Two significant investigations were completed during 2016: a review of high-risk installers, and a review of Building Code of Australia classifications/space types claimed for schedule 34 lighting upgrade activities.

Our review of high-risk installers identified a lack of system controls that could be used to alert management of non-compliance in activities undertaken by their installers.

Our review of Building Code of Australia (BCA) classifications/space types revealed that some accredited persons were incorrectly claiming a space type. This was done so that accredited persons could maximise the number of VEECs awarded for a VEET-related activity. Gymnasiums, for example, were commonly claimed under the wrong space type. The correct BCA classification for a gymnasium is a Class 9b building giving 2,000 annual operating hours. However, accredited persons were claiming them as a Class 6 retail environment giving 5,000 annual operating hours.

The two reviews resulted in 11 accredited persons voluntarily surrendering 14,575 VEECs, and gave us an opportunity to educate accredited persons on compliance requirements. It also gave accredited persons the opportunity to strengthen their internal controls and ensure they create VEECs properly in future. We communicated our high-level audit findings to all stakeholders at the VEET forum in October 2016.

### 3.6. Consumer complaints

**At a glance:** Consumer complaints have decreased.

We investigated 276 compliance-related complaints in 2016, a decrease on the previous year (329 compliance-related complaints in 2015). Of the total complaints we received, 204 related to schedule 21 lighting activities, and 19 related to schedule 34 lighting upgrade activities.

Schedule 21 lighting complaints peaked in April 2016 and declined in the second half of the year. This shift happened as the market moved towards increased participation in schedule 34 lighting upgrade activities. Door knocking and telemarketing complaints also declined with this reduction in schedule 21 lighting activities.

Schedule 34 lighting upgrade 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 continued to emphasise the need for accredited persons to comply with AS/NZS 1680 and ensure that non-residential lighting activities are fit for purpose and meet the workplace minimum illuminance requirements.

We also investigated a number of complaints of misleading advertising (unapproved products being advertised as VEET approved products), VEEC benefits not being received by consumers in the form of store rebates (for televisions under schedule 24), and problems relating to the installation of energy efficient water heating systems.

**Table 9: Number of consumer complaints received – 2016**

Type of compliance	Number
Consumer complaints received	276

### 3.7. Relevant entities' annual liability calculations

**At a glance:** 5,263,089 VEECs were surrendered by relevant entities.

The following entities must surrender VEECs under the Act:

- 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 are required to 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. Relevant entities are required to submit their statement and surrender the required number of VEECs by 30 April of each year.

We use the statement from the relevant entity and audit report to check that the relevant entity has accurately calculated its annual liability under the scheme.

For the 2016 reporting year:

- Twenty-five Victorian energy retailers were identified as relevant entities with a VEEC liability.
- No energy retailer had an energy efficiency certificate shortfall.
- Relevant entities surrendered a total of 5,263,089 VEECs in order to meet their liability.

**Table 10: Details from annual energy acquisition statements**

Details	Measure
Relevant entities that had an energy efficiency certificate shortfall	0
Amount of relevant entities' energy efficiency certificate shortfalls	n/a
Total energy efficiency certificate shortfalls	n/a
Number of VEECs surrendered by relevant entities for 2016	5,263,089

### 3.8. Product applications and approvals

**At a glance:** Lighting products were the main source of applications and approvals in 2016.

In 2016, a total of 3,087 energy saving products were submitted to us for approval. We approved 1,843 products for use in the scheme. This brings the total number of approved products to 9,275.

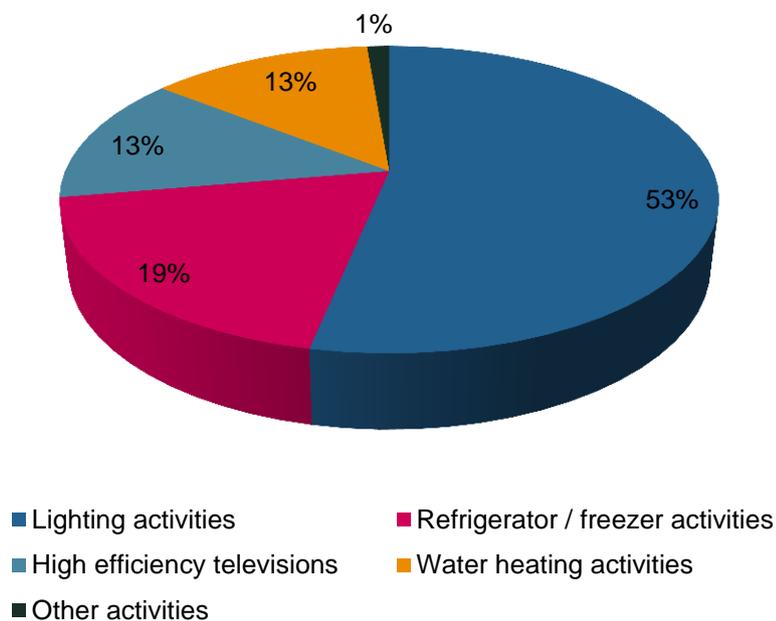
Table 11 shows the number of products applied for and approved by activity type for 2016. Most of the applications were for products used in lighting activities (schedules 21 and 34). The difference between product application numbers and product approval numbers largely reflect products pending assessment and approval by us. In early 2017, we made numerous improvements to streamline our product approval processes.

**Table 11: Summary of product applications and approvals - 2016**

Activity type	Product applications	Product approvals
Lighting	2,271	981
Refrigerator/freezer	427	351
Water heating	241	240
High efficiency television	107	247
Space heating and cooling	27	5
High efficiency clothes dryer	5	17
Space conditioning	5	0
Refrigerator fan	4	2
<b>Total</b>	<b>3,087</b>	<b>1,843</b>

Figure 10 shows the product approvals split by type of activity for 2016. Products for lighting activities made up most of the approvals, followed by refrigerators and freezers, high efficiency televisions and water heating products.

**Figure 10: Product approvals by type of activity – 2016**



## 4. Scheme administration

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

The VEET scheme continues to grow and change as new activities are introduced and the annual target is increased. We work hard to make sure that:

- the scheme's administrative framework and requirements achieves the right balance between maintaining scheme integrity and enabling active participation in the scheme
- scheme participants are kept up to date and consulted where appropriate
- administrative and regulatory changes are introduced in a considered manner.

### 4.1. Changes to the scheme's regulatory framework

**At a glance:** Significant changes happened to the scheme's regulatory framework in 2016.

Machinery of government changes that became effective in May 2016 resulted in the energy portfolio moving from the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) to the Department of Environment, Land, Water and Planning (DELWP). The move took place in June, and the VEET scheme moved with the portfolio. The Hon. Lily D'Ambrosio MP remained the responsible minister (now Minister for Energy, Environment and Climate Change).

Changes were made to the regulatory requirements for a range of VEET activities in 2016. Table 12 shows these changes and their start date.

**Table 12: Summary of regulatory changes - 2016**

Activity	Change start date
Space heating (schedules 7, 8, 9, 10)	1 January
High efficiency motor (schedule 31)	1 January
High efficiency refrigerated display cabinet (schedule 32)	1 January
Refrigeration fan motor (schedule 33)	1 January
Lighting (schedule 34)	1 January
Lighting (new schedule 21E)	1 February
Lighting (schedule 21)	1 March
Lighting (new schedule 21F)	4 April
Space conditioning (schedule 11)	4 April

Further information on these regulatory changes can be found in Appendix C.

We ensured these regulatory changes were in operation by their start date. Administrative changes included:

- release of updated and/or or new stakeholder documents
- release of updated and/or new compliance requirements
- implementation of updated and/or new processes
- updates to IT systems.

## **4.2. Administrative reviews in 2016**

**At a glance:** Four key administrative reviews were undertaken in 2016.

We regularly review how we administer different activities and how the scheme operates. This helps ensure that requirements are correct and operate smoothly, and that scheme risks are dealt with appropriately.

### **4.2.1. Guidelines review**

We started a review of the guidelines in late 2015 to ensure it reflected changes to the Act and the Principal Regulations. The outcomes of this review were released for public consultation in the first half of 2016, with these changes coming into effect in mid-2016. New guidelines clauses included product rejection, the level of auditing assurance required, and scheme compliance and enforcement.

#### 4.2.2. Insulation administrative requirements review

We started a review into the administrative requirements for insulation activities in late 2015, after an order in council was published in the Government Gazette. This order declared that the zero discount factor for ceiling insulation activities would expire when we gazette guidelines relating to these activities. The insulation review concentrates on identifying and mitigating risks involved in these activities, and draws on the relevant recommendations from the royal commission into the Australian Government's former home insulation program. We opened a consultation on proposed insulation administrative requirements in December 2016.

#### 4.2.3. Mandatory safety training review

Installers who perform energy efficiency upgrades under the VEET scheme must be suitably trained to perform the activities they are doing. In 2016, we finalised the implementation of recommendations from a review of safety risks and occupational health and safety laws for activities. Changes included a new risk assessment tool and two changes to our mandatory safety testing requirements, with accredited persons and other stakeholders consulted on these proposed changes in early 2016.

#### 4.2.4. Schedule 34 review

In January 2016, we started a project to review the administrative and compliance processes for schedule 34 lighting upgrade activities. We released a position paper on changes in March about compliance to the Australian Standard AS/NZS 1680, and power factor measurement. Eleven submissions were made in response to the paper, and after considering these, we released revised requirements in April.

### 4.3. Non-building based lighting requirements

**At a glance:** Requirements for non-building based lighting upgrades were introduced in 2016.

Regulatory changes made to schedule 34 lighting upgrade activities starting January 2016 introduced 'non-building based lighting activities' to the VEET scheme. This change took effect in January 2016. With this amendment, accredited persons could undertake lighting activities for roads, public and outdoor spaces, and traffic signals under the VEET scheme.

These activities are very different to lighting upgrades for buildings. We have developed new administrative, product and compliance requirements for these activities. We held discussions with industry participants, accredited persons, lighting manufacturers and councils to make sure stakeholders understood all possible lighting environments.

In 2016, we completed a multi-stage release of requirements for roads, public and outdoor spaces, open air car parks, and sporting fields, tunnels and underpasses.

#### 4.4. Requirements for project-based activities

**At a glance:** A large amount of work was undertaken preparing for project-based activities.

During 2016, we worked with DELWP to develop the administrative requirements for project-based activities.

Project-based activities move away from the existing set of simplified energy saving calculations to providing consumers with methods for accessing VEECs for large and custom projects. These activities require more complex administrative requirements that are very different in nature to the requirements set for the current activities under the scheme. Although these activities were not introduced in 2016, we undertook preparatory work, including the development of a draft administrative framework, key process flow maps, compliance requirements, stakeholder documents and IT specifications.

#### 4.5. Changes to the product approval process

**At a glance:** Improvements were made to the scheme product approval process.

We made a number of improvements in 2016 to our processes for approving energy efficient products under the VEET scheme.

##### 4.5.1. Administrative changes

New LED lighting lifetime administrative arrangements commenced on 1 January 2016, following a five-month transition period. These new arrangements provide greater assurance that LED products will last as long as claimed.

Following a review and public consultation on the administrative requirements for the schedule 34 lighting upgrade on 16 April 2016, we introduced changes to the administrative arrangements for replacing linear fluorescent lamps with linear LED lamps.

Effective 1 August 2016, we introduced changes to the product application processes for lighting products used in outdoor installations for schedule 21B incandescent lighting replacement and schedule 34 lighting upgrade.

#### 4.5.2. Product application quality

Due to ongoing problems with poor quality applications, we applied increased scrutiny to documentation submitted in support of product approval applications.

We introduced a new process where we rejected product applications that were incomplete, non-compliant or included invalid or fraudulent documentation.

Our register of products was also subject to increased scrutiny. As a result, twenty-five lighting products remain suspended from the register following the identification of falsified performance test reports.

### 4.6. Product testing

**At a glance:** Safety and performance testing continue to ensure approved LED lighting products meet all requirements.

#### 4.6.1. Safety and performance testing

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, and the number of installations under the VEET scheme. If we identify problems with a product in these test programs, we may suspend the item from the register of products and refer it to Energy Safe Victoria for further action.

Table 13 shows a summary of outcomes from the LED lighting product performance and safety testing program in 2016. In addition, we suspended eight lighting products from the register of products as a result of the 2015 performance testing program.

**Table 13: Summary of product performance and safety testing - 2016**

Program	Number of products tested	Result
Performance testing	13	4 products suspended 3 products awaiting outcomes
Safety testing	7	3 products suspended

#### 4.6.2. Product recall

In late 2015, the Australian Competition and Consumer Commission and Energy Safe Victoria issued a product recall of more than 33,000 defective downlight transformers. This affected the VEET scheme because the recall affected over 1,900 sites where VEET-related installations had taken place. The recall revealed that electronic components in the installed products differed to those approved and listed on the register of products. It was still ongoing at the end of 2016.

### 4.7. Enhancements to the IT system

**At a glance:** A range of new features were introduced to the IT system in 2016.

Due to the number of regulatory amendments made during 2016, a key focus for the IT system was the development and release of functionality to help the administration of these changes. We are also committed to improving administrative IT processes and giving stakeholders efficient systems to manage their scheme interactions.

New features for the VEET website in 2016 included:

- a new search function for accredited persons to search their activity register for schedule 34 lighting upgrade activities
- a validation step for schedule 21C product applications to improve the efficiency of product submission processes and application feedback
- changes to filters for 'uploaded activities', 'created activities', and 'returned activities' web pages
- changes to the created-VEECs workflow for 'new' activities to aid compliance reviews
- an export function on the 'list of installers' webpage to allow account holders to view and export the list
- implementation of an improved Excel spreadsheet export function, which should reduce export times.

We implemented other changes to the IT system to ensure our staff and VEET account holders have a better website experience. These changes included:

- an upgrade to the server CPU and memory that increased website and system performance
- an increase in the system's data traffic allowance to make sure the website can handle increased website and data traffic.

## 4.8. Working with scheme participants

**At a glance:** Scheme forums were held in April and October in 2016.

We make a considerable effort to work with scheme participants to ensure they understand the scheme's legislative framework, 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.

In 2016, 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 matters and how to meet scheme requirements. In August 2016, we also held a stakeholder information session on the administrative requirements for non-building based lighting.

You can find all presentations given at public forums, consultation documents and explanatory notes for VEET scheme participants on the VEET website ([www.veet.vic.gov.au](http://www.veet.vic.gov.au)).

## 4.9. Working with other government agencies

**At a glance:** Assistance was provided to schemes in other jurisdictions in 2016.

During the year, we regularly met with the policy officers and administrators of other interstate energy efficiency schemes including the Australian Capital Territory Energy Efficiency Improvement Scheme, the New South Wales Energy Savings Scheme and the South Australian Retailer Energy Efficiency Scheme. We shared information and experiences, and worked towards aligning our administrative approaches where appropriate. We also worked closely with other government agencies such as Energy Safety Victoria, Consumer Affairs Victoria and the Australian Communications and Media Authority.

Through 2016, we helped the Commonwealth Department of the Environment and Energy create a consultation regulatory impact statement on setting minimum energy performance standards for LED lighting products and the potential phase-out of halogen lamps. We supported this work through the active membership of a technical working group. We also helped create the street lighting and smart controls program roadmap, a project initiated by the Commonwealth Department of the Environment and Energy but managed by the Institute of Public Works Engineering Australasia.

# Glossary

Term	Definition
accredited person (AP)	A person or business accredited under the Act. Once accredited, this party is eligible to create certificates in the VEET scheme by completing prescribed activities
the Act	The <i>Victorian Energy Efficiency Target Act 2007</i> .
Building Code of Australia (BCA)	The Building Code of Australia is a set of technical provisions for the design and construction of buildings and other structures throughout Australia. The code is given legal effect through the <i>Building Act 1975</i> .
commission	The Essential Services Commission, established under section 7 of the <i>Essential Services Commission Act 2001</i> .
compliance year	Period over which each annual target must be achieved (a full calendar year).
DELWP	The Victorian Department of Environment, Land, Water and Planning.
energy acquisition statement	An annual statement by a relevant entity about the amounts of electricity and gas acquired under scheme acquisitions during the year.
energy efficiency certificate shortfall	The number of certificates which a relevant entity has failed to acquit its share of the scheme target.
energy efficiency shortfall penalty	The civil pecuniary penalty that a relevant entity is liable to pay under the Act in the event of an energy efficiency certificate shortfall.
Energy Saver Incentive	The name used to promote the VEET scheme to the public. From 1 August 2017, the scheme will be known as the Victorian Energy Upgrades program.
GJ	A gigajoule
greenhouse gas	Any gas defined as a greenhouse gas, including carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons.
greenhouse gas reduction rate	Rates for electricity and gas for a particular compliance year, fixed annually by ministerial order.
the guidelines	The <i>Victorian Energy Efficiency Target Guidelines</i> made by the commission under the Act.
liability	The liability of relevant entities to surrender VEECs under the Act.
MWh	A megawatt hour.

Term	Definition
prescribed activity	An activity, prescribed under the Act, which results in a reduction in greenhouse gas emissions that would not otherwise have occurred if the activity was not undertaken.
the Principal Regulations	The <i>Victorian Energy Efficiency Target Regulations 2008</i> , made under the Act.
register of accredited persons	A public register maintained by the commission, containing the names and other information of accredited persons.
register of products	A public register maintained by the commission, containing information on products that may be used for the purposes of prescribed activities.
register of Victorian energy efficiency certificates	A public register maintained by the commission, containing information about energy efficiency certificates as required by the Act and the guidelines.
relevant entity	An entity which 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	A purchase of electricity or gas (or both) by a relevant entity, for on-sale to Victorian customers, within the provisions of the Act.
scheme target	The annual target for the scheme as set by legislation.
VEEC	A Victorian energy efficiency certificate created in accordance with the requirements of the Act. Representing one tonne of carbon dioxide equivalent of greenhouse gases to be reduced by the prescribed activity.
VEET accounts	Accounts that are used by participants to carry out transactions in the VEET scheme.
VEET scheme	The scheme established by the Act.

## Appendix A: VEET scheme framework

### Background

The Victorian Energy Efficiency Target (VEET) scheme was established under the *Victorian Energy Efficiency Target Act 2007* (the Act) and commenced on 1 January 2009. It is a Victorian Government initiative promoted to the public as the Energy Saver Incentive.<sup>7</sup>

The purpose of the legislation is to promote the reduction of greenhouse gas emissions by encouraging the efficient use of electricity and gas in the residential and non-residential sectors. The scheme is also designed to foster investment, employment and technological progress in industries that supply goods and services which reduce energy consumption.

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

VEECs 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 the sale of VEECs enables accredited persons to offer energy consumers benefits that reduce the cost of undertaking these energy efficiency improvements. Each VEEC represents a tonne of greenhouse gas abated. Table 14 lists the target for the scheme each year since the commencement of the scheme in 2020.

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<sup>7</sup> From 1 August 2017, the scheme will be known as the Victorian Energy Upgrades program.

**Table 14: Summary of annual scheme targets**

Year(s)	Scheme target
2009 - 2011	2.7 million VEECs per annum
2012 - 2014	5.4 million VEECs per annum
2015 and 2016	5.4 million VEECs per annum
2017	5.9 million VEECs
2018	6.1 million VEECs
2019	6.3 million VEECs
2020	6.5 million VEECs

## **Legislative framework**

The VEET scheme is governed by the relevant Act, Principal Regulations and guidelines.

### **The Act**

The *Victorian Energy Efficiency Target Act 2007* came into operation on 1 January 2009 and is the primary legislation for the VEET scheme.

The Act gives us administrative powers and responsibilities and sets the limits of the authority for the Regulations and guidelines. It also provides for an energy efficiency shortfall penalty, which is the penalty that a relevant entity must pay if it fails to surrender sufficient certificates to acquit its liability under the scheme in any given compliance year.

The Act also requires certain matters relating to the VEET scheme to be specified through an order in council, which is published in the Government Gazette.

When the Act commenced in 2007, relevant entities were defined to be energy retailers with at least 5,000 electricity and/or gas customers. In 2013, the definition of relevant entities in the Act was amended to also include energy retailers who made a scheme acquisition of at least 30,000 MWh of electricity or 350,000 GJ of gas in one compliance year. Other minor amendments tightened our enforcement powers under the Act.

### **The Principal Regulations**

The Act is supported by the *Victorian Energy Efficiency Target Regulations 2008*. The Principal Regulations specify prescribed activities that can be undertaken under the VEET scheme in its schedules, including details regarding the products that can be installed, installation requirements and the greenhouse gas abatement that each activity generates.

The Principal Regulations have been updated numerous times since the commencement of the scheme on 1 January 2009. Key amendments to the Principal Regulations have included:

- setting new targets for different phases of the scheme
- expansion of the scope of the scheme to include non-residential premises
- addition of new prescribed activities
- amendments to the nature and/or abatement value for existing prescribed activities.

### The guidelines

The *Victorian Energy Efficiency Target Guidelines*, issued by the commission under section 74 of the Act, provide a framework for the administration of the scheme. This includes:

- the accreditation of scheme participants
- creation, form and transfer of VEECs
- details and requirements relating to the register of products
- the manner in which prescribed activities may be undertaken
- occupational health and safety training requirements for installers
- the form of, and information to be included in, energy acquisition statements by relevant entities
- our auditing of VEEC creation by accredited persons
- the auditing of energy acquisition statements by third parties engaged by relevant entities
- records to be kept by accredited persons and relevant entities
- information to be contained in the registers of accredited persons and VEECs that we maintain
- details on the audit of the creation of certificates and compliance investigations
- compliance and enforcement requirements
- any other matters relevant to the administration of the VEET scheme.

### Our role and functions

Under the Act, we are responsible for implementing and administering the VEET scheme. Our responsibilities include:

- accrediting persons who may create VEECs
- administering the creation, registration, transfer and surrender of VEECs
- approving energy efficient products that may be used to create VEECs
- monitoring compliance with the Act, Principal Regulations and guidelines
- issuing shortfall statements and enforce energy efficiency shortfall penalties
- maintaining electronic registers.

## Accredit persons

Individuals and companies must be accredited under the VEET scheme before they can create VEECs. Each accredited person is allocated a unique registration number that is publicly available on the register of accredited persons on the VEET website. A once-only \$500 fee is levied to help cover the administrative costs of assessing and accrediting an applicant.

We also process applications for account holders in the scheme. An account holder may trade (i.e. buy and sell) VEECs, but they may not create them. No fee is levied to become an account holder.

## Administer creation, registration, transfer and surrender of VEECs

Each VEEC represents one deemed tonne of greenhouse gas abated. Accredited persons are entitled to create VEECs for energy efficiency activities as specified in the Principal Regulations and according to calculated abatement values.

VEECs are created electronically, and we assess the validity of the VEECs before registering them. We use a risk based approach when assessing VEECs for registration. The VEEC assessment process involves the issuing of requests for further information (RFIs) to accredited persons about the VEECs they have submitted for creation. We direct our assessment of VEECs using risk ratings of the activity and the accredited person, and 'risk flags'.

The compliance checks conducted on VEEC claims submitted by accredited persons include:

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

Where an accredited person is unable to satisfy us that VEECs have been properly created, the accredited person is given the option of withdrawing the VEECs.

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

Relevant entities are required to surrender VEECs to acquit their required energy efficiency liabilities for a compliance year.

## Monitor compliance

We are responsible for ensuring compliance with the scheme and maintaining scheme integrity. Compliance activities involve ensuring that accredited persons have created VEECs in accordance with the requirements of the Act and Principal Regulations, and that relevant entities surrender an appropriate number of VEECs to acquit their required liability. This involves overseeing and reviewing the submission of:

- VEEC creations, transfers and surrenders throughout the year by scheme participants
- energy acquisition statements submitted annually by relevant entities.

The Act provides us with auditing and enforcement powers for these matters:

- section 7(2)(d) of the Act empowers us to undertake audits of the creation of VEECs by accredited persons
- section 33 of the Act requires relevant entities to submit audited energy acquisition statements to us.

In addition, section 7 of the Act allows us to:

- undertake audits of scheme participants
- provide ongoing information to participants about their responsibilities and obligations under the scheme
- impose enforcement actions for non-compliance with the provisions of the legislation.

## Issue shortfall statements and enforce energy efficiency shortfall penalties

Relevant entities determine the number of VEECs 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 2016, the greenhouse gas reduction rate for electricity was fixed at 0.13111 and the greenhouse gas reduction rate for gas was fixed at 0.00780.

If a relevant entity fails to surrender enough VEECs to acquit its liability in a given year, we may issue a shortfall statement imposing an energy efficiency shortfall penalty on the relevant entity. This civil penalty is determined by multiplying the VEEC shortfall (in tonnes of carbon dioxide equivalent of greenhouse gases) of the relevant entity for that year by the prescribed shortfall penalty. In accordance with section 28 of the Act, for 2016 the shortfall penalty rate was fixed at \$46.08 per tonne of carbon dioxide equivalent of greenhouse gases.

## Approve energy efficient products

Before a product can be installed under the VEET scheme, we must receive an application for the product to be approved and added to the register of products. This approval process provides accredited persons with assurance that the products they intend to install meet scheme requirements. It also streamlines the process for registration of VEECs following the installation of the products.

Applications can be made by VEET 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 provide applicants with a written outcome. Once a product is approved, we add it to the register of products. Accredited persons may use these products when they undertake the relevant prescribed activities.

## Maintain electronic registers

As required by the Act and Principal Regulations, we maintain the following electronic registers associated with operating the VEET scheme:

- register of accredited persons: a register that contains the names and particular of accredited persons
- register of Victorian energy efficiency certificates(VEECs): a register that contains information about certificates
- register of products: a register that contains information about products that may be used for prescribed activities under the scheme.

These registers are publicly accessible on the VEET website ([www.veet.vic.gov.au](http://www.veet.vic.gov.au)).

## Appendix B: Table of VEECs created and registered per prescribed activity

This table has been sorted on total VEECs created for 2016, then by total VEECs created for 1 Jan 2009 – 31 Dec 2016.

Activity type	VEECs created	VEECs registered	Installs	VEECs created	VEECs registered	Installs
	2016 reporting year 1 Jan 2016 – 31 Dec 2016			2009 - 2016 reporting years 1 Jan 2009 – 31 Dec 2016		
34 – Lighting upgrade	4,758,881	3,443,950	18,446	5,690,636	4,081,652	21,737
21C – Incandescent lighting – retrofit of 12 volt halogen lamp	1,973,081	2,378,780	107,669	7,596,585	7,372,908	343,378
21A – Incandescent lighting – GLS lamps	599,298	500,968	50,567	3,833,473	3,307,354	394,130
21B – Incandescent lighting – reflector lamps	345,457	305,390	80,875	381,999	305,960	89,213
21E – Incandescent lighting – replacing mains voltage halogen lamp	293,468	259,995	22,245	293,468	259,995	22,245
1E - electric boosted solar replacing electric	211,908	158,824	4,519	341,721	281,359	7,554
1B - Decommissioning electric and installing gas/LPG instantaneous	94,985	95,405	2,193	817,921	806,477	19,172
21D – Incandescent lighting – replacement of 12 volt halogen fitting	89,369	131,017	9,278	702,184	682,760	40,470
17 - Shower rose	76,315	75,954	23,403	1,175,586	1,099,430	382,923
24 – Purchase of high efficiency televisions	47,582	48,963	7,959	124,767	120,357	24,290
19 - Destruction of refrigerator or freezer	42,375	40,473	9,205	403,885	394,450	88,754
30 – Installing in-home display	38,265	38,383	16,446	119,862	110,056	52,979
6 - Decommissioning central electric resistance and installing high efficiency ducted gas	27,548	26,399	108	633,937	612,110	2,244

Activity type	VEECs created	VEECs registered	Installs	VEECs created	VEECs registered	Installs
	2016 reporting year 1 Jan 2016 – 31 Dec 2016			2009 - 2016 reporting years 1 Jan 2009 – 31 Dec 2016		
15 - Weather sealing	21,978	23,697	15,758	1,162,160	1,068,821	339,832
5 - Decommissioning ducted gas and installing high efficiency ducted gas	13,208	12,604	1,108	59,031	58,245	4,672
29 – Installing a standby power controller	11,036	10,065	2,738	11,385,812	10,162,531	1,409,208
1A - Decommissioning electric and installing gas/LPG storage	11,035	10,629	270	187,449	186,353	4,704
1F - Gas/LPG boosted replacing electric	5,781	5,466	98	40,176	39,279	680
32 – Installing high efficiency refrigerated display cabinet	4,798	1,045	17	4,833	1,045	18
9 - Installing flued gas/LPG space heater	3,141	3,250	279	21,997	21,798	2,691
8 - Decommissioning central electric resistance installing high efficiency ducted air heat pump	1,547	1,181	9	5,171	4,805	32
3 - Decommissioning gas/LPG and installing gas/LPG boosted solar	1,091	1,147	104	99,960	99,539	9,539
26 – Installing high efficiency pool pump	695	711	81	7,298	7,266	899
20 – Installing high efficiency ducted gas heater	358	355	67	3,241	3,212	550
18 / 22 - Purchase of refrigerator/ freezer	249	247	114	470	466	248
25 – Purchase of high efficiency clothes dryer	175	170	41	263	258	65
28 – Replacement of gas heating ducts	165	180	8	16,244	474	855
10 - Installing space air to air heat pump	96	72	8	103	79	10

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

Activity type	VEECs created	VEECs registered	Installs	VEECs created	VEECs registered	Installs
	2016 reporting year 1 Jan 2016 – 31 Dec 2016			2009 - 2016 reporting years 1 Jan 2009 – 31 Dec 2016		
33 – Replacing refrigerator fan	73	73	2	2,955	1,614	38
16 – Installing low energy lamps	0	0	0	5,270,073	5,107,907	555,181
1C - Decommissioning electric and installing electric boosted solar	0	0	0	812,166	811,226	19,171
1D - Decommissioning electric and installing gas/LPG boosted solar	0	0	0	393,007	387,623	6,505
11 - Installing insulation in ceiling area not previously insulated	0	0	0	56,918	56,918	1,168
2 - Installing solar retrofit on electric	0	0	0	155	155	7
13 - Replacement of external window	0	0	0	81	81	1
36 – Water efficient pre-rinse spray valve	0	0	0	59	0	7
4 - Installing solar pre-heater on gas/LPG	0	0	0	21	21	3
12 - Installing insulation in floor area not previously insulated	0	0	0	17	17	1
7 - Decommissioning ducted air to air heat pump and installing high efficiency ducted air heat pump	0	0	0	6	6	1
14 - Retrofit of external window	0	0	0	0	0	0
21F – Incandescent lighting – replacing mains voltage halogen fitting	0	0	0	0	0	0
23 – Decommissioning refrigerative air conditioner and installing evaporative cooler	0	0	0	0	0	0

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

Activity type	VEECs created	VEECs registered	Installs	VEECs created	VEECs registered	Installs
	2016 reporting year 1 Jan 2016 – 31 Dec 2016			2009 - 2016 reporting years 1 Jan 2009 – 31 Dec 2016		
31 – Installing high efficiency motor	0	0	0	0	0	0
35 – Low flow trigger nozzle	0	0	0	0	0	0
<b>Total</b>	<b>8,673,958</b>	<b>7,575,393</b>	<b>373,615</b>	<b>41,645,690</b>	<b>37,454,607</b>	<b>3,845,175</b>

Note: Created VEECs are assessed against criteria in the legislation before being validated and registered, which accounts for apparent discrepancies in the table between created and registered VEECs. The status of all VEECs, including those pending registration validation, pending registration payment and withdrawn, are listed on the VEET website at [www.veet.vic.gov.au](http://www.veet.vic.gov.au) and are updated daily.

## Appendix C: Regulatory changes

This table details the amendments made to the Principal Regulations in 2016.

Commencement date	Amended schedules	Amendments made
1 January 2016	Schedules 7, 8 and 10	<ul style="list-style-type: none"> <li>Removed the restriction that prevents activities from being undertaken in postcodes with access to natural gas (i.e. postcodes designated as being gas reticulated in the Principal Regulations).</li> <li>Changed the number of VEECs awarded for activities undertaken under these schedules.</li> <li>Increased the minimum coefficient of performance for products installed under these schedules.</li> <li>Updated the standards for testing the annual coefficient of performance (the minimum rated output heating capacity is determined using these standards).</li> <li>Updated the standard used to set out a product's minimum energy performance standard (MEPS) requirement.</li> </ul>
1 January 2016	Schedule 9	<ul style="list-style-type: none"> <li>Removed the restriction that prevents activities from being undertaken in postcodes with access to natural gas (i.e. postcodes designated as being gas reticulated in the Principal Regulations).</li> <li>Changed the number of VEECs awarded for activities undertaken under this schedule.</li> </ul>
1 January 2016	Schedules 31, 32 and 33	<ul style="list-style-type: none"> <li>Removed the requirement to replace and decommission an existing unit.</li> <li>Changed the number of VEECs awarded for activities undertaken under these schedules.</li> <li>For schedules 31 and 32, updated the standards used to determine a product's requirements.</li> </ul>

Commencement date	Amended schedules	Amendments made
1 January 2016	Schedule 34	<ul style="list-style-type: none"> <li>• Included variable annual operating hours based on space type and/or Building Code of Australia classifications in which a lighting upgrade occurs.</li> <li>• Included non-building based lighting upgrade activities on roads, in a public space, or for traffic signals.</li> <li>• Included new asset lifetime references: baseline reference (J6-AB and NonJ6-AB) and upgrade reference (U-AB). These allow a lighting upgrade that only involves the installation of a lighting control device (LCD) and no other lighting equipment.</li> <li>• Changed the number of VEECs awarded for activities undertaken under this schedule due to changes in the greenhouse abatement coefficients for electricity.</li> <li>• Included the following two new types of lighting control devices and corresponding control multiplier values: <ul style="list-style-type: none"> <li>– multiple control systems (where all lamps in the lighting system are connected to a programmable dimmer and manual dimmer)</li> <li>– multiple control system (any other combination of two or more control systems).</li> </ul> </li> </ul>
1 February 2016	Schedule 21	<ul style="list-style-type: none"> <li>• Introduced a new prescribed activity under schedule 21, schedule 21E that can be undertaken in both residential and person premises. It involves the replacement of a main voltage halogen lamp (of at least 35 watts with a GU10 base) with a low energy lamp with a GU10 base that meets the requirements set out in schedule 21E of the Principal Regulations.</li> </ul>

Commencement date	Amended schedules	Amendments made
1 March 2016	Schedule 21	<ul style="list-style-type: none"> <li>• Changed the product approval requirements for LED lamps applied for under schedules 21A, 21B, 21C and 21D.</li> <li>• Increased the minimum product specification criteria stipulated in Part A of schedules 21B, 21C and 21D.</li> <li>• Introduced new efficacy and rated lifetime categories for schedules 21A, 21B, 21C and 21D.</li> <li>• Changed abatement factors awarded for schedules 21A, 21B, 21C and 21D activities.</li> </ul>
4 April 2016	Schedule 21	<ul style="list-style-type: none"> <li>• Introduced a new prescribed activity under schedule 21, (schedule 21F) that can be undertaken in both residential and person premises. It involves the replacement of a mains voltage halogen lamp (of at least 35 watts with a GU10 base) with a mains-voltage, low-energy downlight fitting that meets the requirements set out in schedule 21F of the Principal Regulations.</li> </ul>
4 April 2016	Schedule 11	<ul style="list-style-type: none"> <li>• Updated the applicable installation standard to AS 3999:2015.</li> <li>• Changed the product definition to product, or a combination of products need to achieve a material R-value of not less than 3.5 when measured in accordance with AS/NZS 4859.1:2002 incorporating Amendment No. 1 published on 28 December 2006.</li> <li>• Changed the product definition to only allow the installation of non-conductive products.</li> </ul>