

Setting future Victorian Energy Efficiency Targets

Consultation paper

April 2015



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Authorised by the Victorian Government
Department of Economic Development,
Jobs, Transport & Resources
1 Spring Street Melbourne Victoria 3000
Telephone (03) 9208 3333

April 2015

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1. Executive Summary

We are preparing now for the future of the Victorian Energy Efficiency Target (VEET) scheme. In late 2014, the recently elected Victorian Government chose to continue the scheme and to strengthen it.

A market-based program, also known publicly as the Energy Saver Incentive, VEET has delivered energy efficiency activities that are anticipated to save 24.3 million tonnes CO₂-e over their lifetime¹ – generating investment and jobs in energy efficiency services and supporting thousands of households and businesses to reduce their energy consumption.

For the scheme to continue, our immediate task is to set the targets for 2016 and beyond. This involves deciding how much carbon abatement, and how many certificates the scheme must deliver; and over how many years this should be achieved.

In setting targets, and strengthening the scheme, we must also consider the types of energy efficiency measures the scheme supports. This starts now, but also forms part of a longer process over the course of this year.

To inform these decisions we are seeking your input, and invite you to submit feedback on the following:

- the approach used to model the costs and benefits of VEET scheme targets;
- the preferred level of the new VEET target;
- opportunities for large business to participate in the scheme;
- opportunities for greater participation by different sections of the community;

- introducing new energy efficiency activities, and revising existing activities; and
- setting priorities for improving the VEET scheme.

Setting new targets is just the beginning. Our work to strengthen VEET will continue, and we will regularly seek your input to inform the future of the scheme.

VEET is just one part of the Victorian Government's commitment to energy efficiency and productivity growth in Victoria, with a Statement released by mid 2015, and a Strategy expected to be developed by the end of the year.

How to provide feedback

The Department seeks submissions on the issues canvassed in this paper, and specifically on the questions listed in section 12.

Closing date for submissions is COB 11 May 2015.

Submissions may be published on the website. Please indicate if the submission, or sections within the submission is confidential or contains sensitive information that is not for publication. Responses to can be lodged as follows:

www.energyandresources.vic.gov.au/ESI

Or in writing

Review of the Victorian Energy Efficiency Target scheme
Energy Sector Development Division
Postal Address: GPO Box 4509
Melbourne VIC 3001

¹ This considers the operation of the scheme up to the end of 2014 only.

2. Background

VEET is a market-based approach to encourage energy efficiency in households and workplaces across the state.

When eligible energy efficiency measures are implemented in homes and businesses, they earn certificates. Every certificate represents one tonne of carbon emissions saved over the lifetime of the measure. Certificates can then be sold to energy retailers, who are required to meet an emission savings target each year.²

Established in the Victorian Energy Efficiency Target Act 2007 (the Act), the scheme is administered by the Essential Services Commission following the Victorian Energy Efficiency Target Regulations 2008 (the Regulations).

Why set a target?

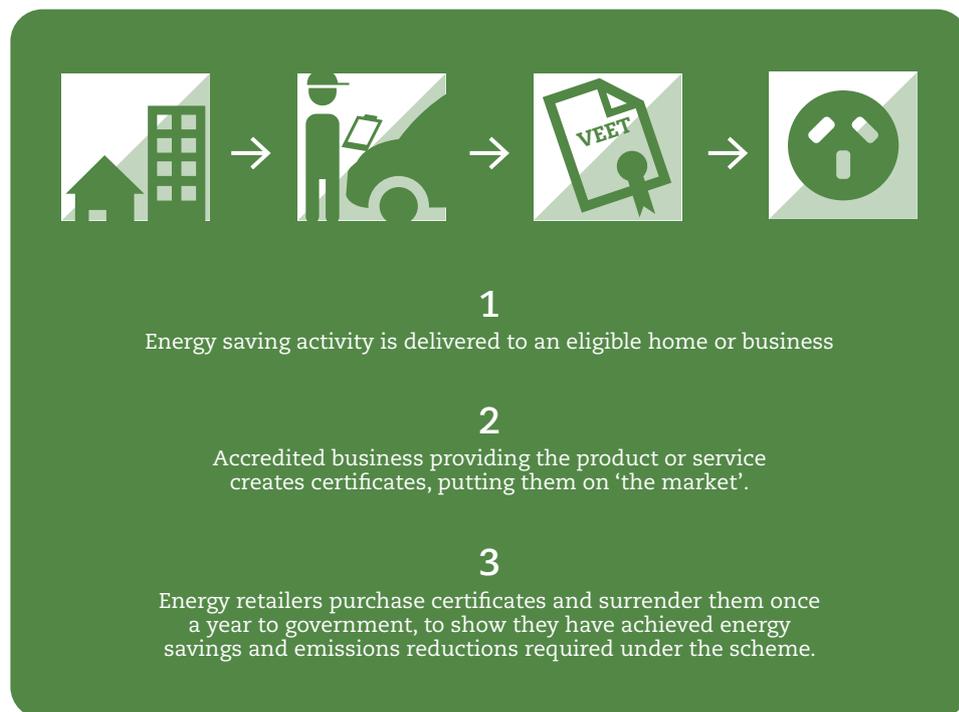
The Victorian Energy Efficiency Target is designed to:

- reduce greenhouse gas (GHG) emissions;
- encourage the efficient use of electricity and gas; and
- encourage investment, employment and technology development in industries that supply goods and services which reduce the use of electricity and gas by consumers.

² Every year large energy retailers (retailers who either have 5,000 or more customers, or who purchase large amounts of gas or electricity in the relevant year) must obtain and retire certificates equal to their share of the target (determined in relation to the retailer's proportion of the total gas and electricity purchased in the relevant year).

'Every certificate created through VEET represents one tonne of carbon emissions saved.'

FIGURE 1: HOW VEET WORKS



Setting the target

Annual scheme targets have been set in three-year phases, expressed as emissions reductions. Targets are set by 31 May in the year before that phase.

Targets have previously been set at:

- 2009-11: 2.7 million tonnes CO₂-e/year; and
- 2012-14: 5.4 million tonnes CO₂-e/year.

With the former Government planning to close the scheme at the end of 2015, no target was set in the Regulations for the 2015-17 period. The former Government proposed a low target of 2 million tonnes to take the scheme to the end of 2015. However, the 2015 target was later increased by the incoming Government to 5.4 million tonnes, along with a commitment to reviewing the scheme with a view to strengthening it even further.

3. Summary of the modelling approach

The VEET scheme generates a ‘market’ to support energy efficiency activities through supply and demand.

The target creates the demand for certificates, while the energy efficiency activities eligible under the scheme create the supply.

If a retailer fails to meet their VEET target, they incur a shortfall penalty, effectively setting a ceiling to the costs of the scheme.³

The costs and benefits of various targets have been modelled as follows:

- **modelling of residential and business activities:** This models the projected uptake of energy efficiency activities in the residential and business sectors (including existing activities and potential new activities). This includes estimates of the energy savings delivered, and the certificate prices associated with a range of target options. This is described in more detail on page 5.
- **selection of forward targets:** Based on the findings of the above modelling, five specific targets have been chosen as a basis for testing impacts through energy market modelling and cost benefit analysis.
- These targets aim to strike a balance between the amount of energy efficiency savings achieved, and the impact on certificate prices (which are passed through to consumers). This is described in more detail on page 7.
- **energy market modelling:** Using the quantity of energy savings projected through the activities modelling for the different targets, this analysis identifies impacts on the energy market. This is described in more detail on page 11.
- **cost benefit analysis:** Drawing on the outputs of this modelling, as well as looking at broader costs and benefits such as reduction in greenhouse gas emissions, the overall cost-benefit of the scheme across the Victorian economy is determined against the five⁴ identified target options. This is described in more detail on page 12.

³ Pursuant to section 28(1) of the VEET Act, a Relevant Entity which has an energy efficiency shortfall in a given compliance year is liable to pay a pecuniary penalty to the Consolidated fund in the form of a shortfall penalty. The shortfall penalty is determined in accordance with section 28(2) of the VEET Act. The shortfall penalty rate for the 2014 compliance year is subject to a CPI calculation and is \$44.54 per certificate.

⁴ Initially four target options were tested, an additional five- year option was added after the first round of modelling.

4. Modelling of residential and business energy efficiency activities

Approach to modelling of activities

Energy efficiency models identify opportunities for energy savings that could be supported by the VEET scheme. Modelling quantifies how large each opportunity is – both in terms of the scale of energy savings and their duration – and the extent to which opportunities can be taken up by the market. The opportunities may be limited by certain factors, such as the extent to which an activity has already been taken up, or the maximum number of installations that is achievable in a single year.

By estimating the likely uptake of energy efficiency activities, the model estimates the reductions in electricity and gas consumption achieved under various future target scenarios, as well as the ‘marginal’ certificate prices required to achieve these targets. The marginal certificate price is the price to purchase the last certificate to achieve the target each year. This provides an insight into the cost of delivering a target, noting that the average certificate price may be lower than the marginal value.

The modelling of energy efficiency activities was undertaken in two parts: residential-targeted activities and business-targeted activities.

The **residential energy efficiency model** was created by Sustainability Victoria and includes all current residential activities as well as smaller scale ‘residential-type’ activities carried out on business premises. These include the eligible activities that currently exist in the scheme, plus other potential new or revised activities.

Residential activities have to date generated more than 90 percent of all certificates, largely due to lighting replacements enabled by the rapid emergence of low-cost LED lights. The model predicts that these types of activities will continue to dominate, but also considers future saturation of the market when there are fewer opportunities for lighting replacement.

A number of other assumptions are made, for example:

- the removal of restrictions on reverse-cycle air conditioners (heat pumps) in gas-reticulated areas;
- the removal of restrictions on ceiling insulation; and
- completely new activities, generating an incentive to voluntarily go beyond current 6 star energy ratings, or minimum lighting efficiency standards in new houses.

The model also assumes that as part of the revision of existing activities some will have their energy efficiency baselines – which are used to estimate the energy savings – revised, meaning that their estimated level of abatement above the baseline may change (generally decrease). As outlined on “10. Introduction of new energy efficiency activities and revising existing activities” on page 29, any revision to existing activities will be the subject of specific consultation at a later stage.

A detailed description of the residential model and activities is provided in **Appendix A**.

The **business energy efficiency model**, developed by Energetics⁵, includes activities that are generally limited to business premises. It considers both activities currently eligible under VEET, and a wide range of new opportunities for commercial energy savings. Currently, the major source of business activity in VEET is commercial lighting upgrades.

The model makes the following key assumptions:

- commercial lighting upgrades are assumed to increase, partly assisted by recent technological improvements and revised costs;
- project-based assessments become available and show gradual uptake to account for time needed for projects to be assessed and implemented;
- the removal of restrictions on large businesses (see page 25); and
- the uptake of some activities has been refined based on lessons learned from energy efficiency schemes in other jurisdictions.

The assumptions and a snapshot of results from the business energy efficiency model are documented in the Energetics report provided in **Appendix B**.

⁵ Energetics Pty Ltd was engaged by the Department of Economic Development, Jobs, Transport and Resources to undertake this modelling.

Implications of the modelling

The modelling was primarily designed to test the costs and benefits of various target options. Setting the targets is our first priority in strengthening the scheme.

It is important to note that any actual amendment of the energy efficiency activities currently included in the scheme will occur separately, at a later date.

You will have an opportunity to comment on proposed changes before changes to activities are made. This will form part of an ongoing regulatory review process, timed to enable stakeholders to adapt their business models as required.

We will accept feedback about VEET activities as part of this present consultation process, see “12. List of questions” on page 31, and will seek your comments again as the year progresses.

‘Modelling was primarily designed to test the costs and benefits of various target options.’

5. Identification of targets to be modelled

Level of targets

The target scenarios are identified by considering the availability of energy efficiency activities, which then drives the cost to acquire certificates. Higher targets result in a higher marginal certificate price and the uptake of a wider range of energy efficiency activities.

Based on the findings of the residential and business activities modelling, five targets were selected to test.

Target options and certificate prices

- option 1: **5.4 million tonnes CO₂-e per year for a three-year period from 2016 to 2018**
- option 2: **5.8 million tonnes CO₂-e per year for a three-year period from 2016 to 2018**
- option 3: **6.2 million tonnes CO₂-e per year for a three-year period from 2016 to 2018**
- option 4: **5.8 million tonnes CO₂-e per year for a five-year period from 2016 to 2020**
- option 5: **6.2 million tonnes CO₂-e per year for a five-year period from 2016 to 2020**

This range tests three three-year targets and two five-year targets. It provides a comparison with either continuing the target at the current level of 5.4 million tonnes, or setting a higher and/or longer target.

Forward target options were identified through modelling of energy efficiency

opportunities and activities, and their consequent impact on the energy market. The range of higher targets aims to achieve a balance between strengthening the VEET scheme with a sufficiently high target, and avoiding a rapid move to high certificate prices, which could undermine the stability of the VEET market. These high certificate prices are also passed through to consumers in their energy bills.

The modelling also found that lighting upgrades make up a significant volume of lower cost certificate creation. The market for this activity is expected to start to saturate during the period 2017 to 2018. This means that the VEET targets are modelled to be increasingly met by business activities and the higher cost residential activities.

Certificate costs are considered a 'cost' of the scheme in the cost benefit analysis. As the price of certificates increases, so does the incentive to implement energy efficiency activities. This encourages the implementation of a greater range and number of energy efficiency activities to support a higher target. There are practical limits to which activities can be included in the VEET scheme; for example, the activities must be able to be incorporated in the Regulations within the time period modelled. There are also natural barriers, such as the maximum number of hot water systems that are likely to be replaced in a year.

The marginal certificate prices modelled for the options, averaged over the period of the target, were as follows:

- option 1: 5.4 million tonnes CO₂-e per year for three years, \$26;
- option 2: 5.8 million tonnes CO₂-e per year for three years, \$30;
- option 3: 6.2 million tonnes CO₂-e per year for three years, \$35;
- option 4: 5.8 million tonnes CO₂-e per year for five years, \$34; and
- option 5: 6.2 million tonnes CO₂-e per year for five years, \$39.

For comparison, the long run average certificate price is approximately \$18⁶.

Target duration

To date, the VEET scheme has established targets over three-year phases and only generated certificates through 'deemed' methods. Deemed methods, which calculate the number of certificates generated over the life of the activity and award them upfront, are suitable for relatively simple single energy efficiency upgrades with predictable savings (e.g. replacing hot water systems and light globes). The value of these upgrades is calculated as an 'average' energy saving over a business-as-usual baseline for the lifetime of the upgrade, the result of which is generalised to all upgrades of the same classification. Deemed methods allow for minimal red tape, reduce the opportunity for rorting, and support consistency in establishing the value of an upgrade.

Best practice in the design of energy efficiency schemes suggests that consideration should be given to setting a longer target than the current three-years used to date⁷. Therefore, we have examined five-year targets, which will provide more time for participants to plan and implement more complex activities. If the VEET scheme is to be extended outside of relatively simple, easily generalisable energy efficiency upgrades to include customised, 'project-based' upgrades, new, more flexible methods will need to be introduced into the Regulations. This will enable more businesses to participate in the scheme, increase the availability of certificates, and therefore reduce certificate and scheme costs.

Using more flexible methods to determine the value of energy savings may enable more certificates to be created. More flexible methods however require more input from businesses to show the proposed energy savings are valid, so there may be an increased cost to businesses to create certificates. A barrier to investing in these more complex approaches is business and regulatory uncertainty. If the project development and approval cycle is longer than the period over which the target is set, there is a risk that an unforeseen change to the target in the subsequent phase will damage the business case. However, if the target period is longer, this provides more certainty for businesses considering investing in energy efficiency.

Five-year targets were therefore modelled to provide insight into the potential costs and benefits of establishing longer targets.

⁶ Long run certificate price is based on analysis of the VEET spot market for the 2014 compliance year.

⁷ The Regulatory Assistance Project 2012, Best Practice in designing and implementing energy efficiency obligations schemes.

Greenhouse gas emission coefficient

The greenhouse gas emissions coefficient underpins all VEET target calculations. It is the factor used to calculate emissions reductions from electricity and gas savings, as well as fuel conversions.

VEET emissions coefficients

To date, the following emissions coefficients are used in the VEET scheme:

- electricity: 0.963 tCO₂-e/MWh; and
- natural gas: 57.3 kgCO₂-e/GJ.

These coefficients were developed in 2007 to inform the inception of the scheme.

Electricity coefficient

We calculated the coefficient for electricity based on the rationale that when electricity demand is reduced as a result of VEET activities, the electricity market responds by scaling back the most expensive generator (the marginal generator). This approach calculates the marginal emissions coefficient, which is theoretically more precise than using the average coefficient for the Victorian electricity market, which is based on total greenhouse emissions from all electricity generators.

Natural gas coefficient

The coefficient for natural gas is directly taken from the National Greenhouse Accounts as published in 2007. The current equivalent value is 55.23 kgCO₂-e/GJ.

Updating the VEET greenhouse coefficient

We are considering three options for how we calculate the VEET coefficient in future.

1. retain the existing coefficients.
2. update the coefficients using the same approach used in 2007 – this would be likely to increase the coefficient for electricity to around 1.0 tCO₂-e/MWh.
3. use a published average coefficient as per the National Greenhouse Accounts.

Coefficient changes and the VEET target

Any change to the coefficient would change the amount of greenhouse gas savings allocated to a given energy saving by an equal magnitude. This must also be translated into the targets we set for the scheme.

A higher coefficient would effectively mean that the same energy saving would be deemed to create greater emission reductions than was previously assumed, and the target should therefore be scaled proportionally upwards. This scaling up would represent little actual impact on the operation of the scheme.

As the coefficient and target are so closely linked, any changes to these should be made together, at a similar point in time. This allows for the same coefficient to be applied to target calculations as well as to the abatement delivered from each activity – and for the same coefficient to be applied in the VEET legislation and regulations.

An example: applying new marginal coefficients

If new marginal coefficients were applied to the option of a 5.4 million target over three years, we expect the following impacts:

- for 2016 year there would be no adjustment to allow for the time needed to implement Regulation amendments. The target would remain at 5.4 million, and all energy efficiency activities would be revalued in the Regulations to the new coefficient (by 1 January 2017).
- for 2017 and onwards both the target and the activities would convert to the new coefficient. The target would be 5.6 million, and the valuation of activities would move in parallel. This means the new target would achieve the same energy savings as required to meet the 5.4 million target.

Other considerations

If we apply the average coefficients from the National Greenhouse Accounts for VEET, we would significantly increase the coefficient used to convert electricity savings into greenhouse savings. It is likely to less precisely represent the actual greenhouse gas savings delivered by VEET from electricity. This would increase the number of certificates generated by those measures which are dominated by electricity savings relative to those dominated by gas savings (e.g. heating, water heating, building shell upgrades).

Final note

All our modelling to date uses the existing marginal coefficients.

TABLE 1: EXAMPLE OF REVISED MARGINAL GREENHOUSE GAS COEFFICIENTS

	Electricity (tCO ₂ e/MWh)	Gas (kg CO ₂ e/GJ)	Target				
			3 year			5 year	
Current marginal coefficient	0.963	57.3	5.4	5.8	6.2	5.8	6.2
Example of revised marginal coefficient	1.01	55.23	5.6	6.1	6.5	6.0	6.4

6. Energy market modelling

To examine VEET impacts on the energy market as a whole, the reductions in electricity and gas consumption likely to be achieved under different scenarios are inputted into an energy market model.

The energy market modelling was undertaken by Jacobs Group⁸. Jacobs uses a proprietary model of the energy market that is widely accepted and used in industry.

VEET energy market benefits

Jacobs' modelling shows VEET delivers the following key benefits:

- avoided electricity generation fuel costs;
- deferred investment in electricity networks;
- avoided electricity generation investment;
- avoided electricity generation operations and maintenance costs; and
- avoided non-electricity generation gas resource costs.

To quantify the impacts of future targets, the results are compared to an energy market base-case of no VEET scheme from 2016 onwards.

Key energy market model assumptions

- forward energy demand uses the medium demand forecast for 2014 published by the Australian Energy Market Operator;

- the model assumes that there will be no carbon price in the energy market over the modelled period;
- a Renewable Energy Target of 33,000 GWh of large-scale renewable generation by 2020 is implemented. This assumes the Federal Government and Federal Opposition will agree on a lower target than currently legislated. The assumed target represents Jacobs' view on the most likely outcome given the stated positions of both political parties; and
- network benefits from VEET initiatives are assessed by estimating the benefits of reducing peak demand for each Distribution Network Service Provider, as well as considering uncertainty around each network's ability to recover revenue and the possible impact on tariff determinations.

The energy market model also provides an output that is the predicted greenhouse gas emission reductions for the target scenarios. This is slightly different to the target emissions reductions, as the energy model predicts the energy reductions for each specific generator, each of which has a different emissions intensity.

A detailed description of the energy market modelling approach is provided in **Appendix C**.

⁸ Jacobs Group (Australia) Pty Ltd was engaged by the Department of Economic Development, Jobs, Transport and Resources to undertake this modelling.

7. Cost benefit analysis

Using available information, we have conducted a preliminary cost benefit analysis for VEET, and invite your comments.

Where sufficient information is available, we have considered the broader benefits of energy efficiency, as described by The International Energy Agency⁹.

Five themes for energy efficiency benefits

1. Enhancing the sustainability of the energy system.
2. Economic development.

3. Social development.
4. Environmental sustainability.
5. Increasing prosperity.

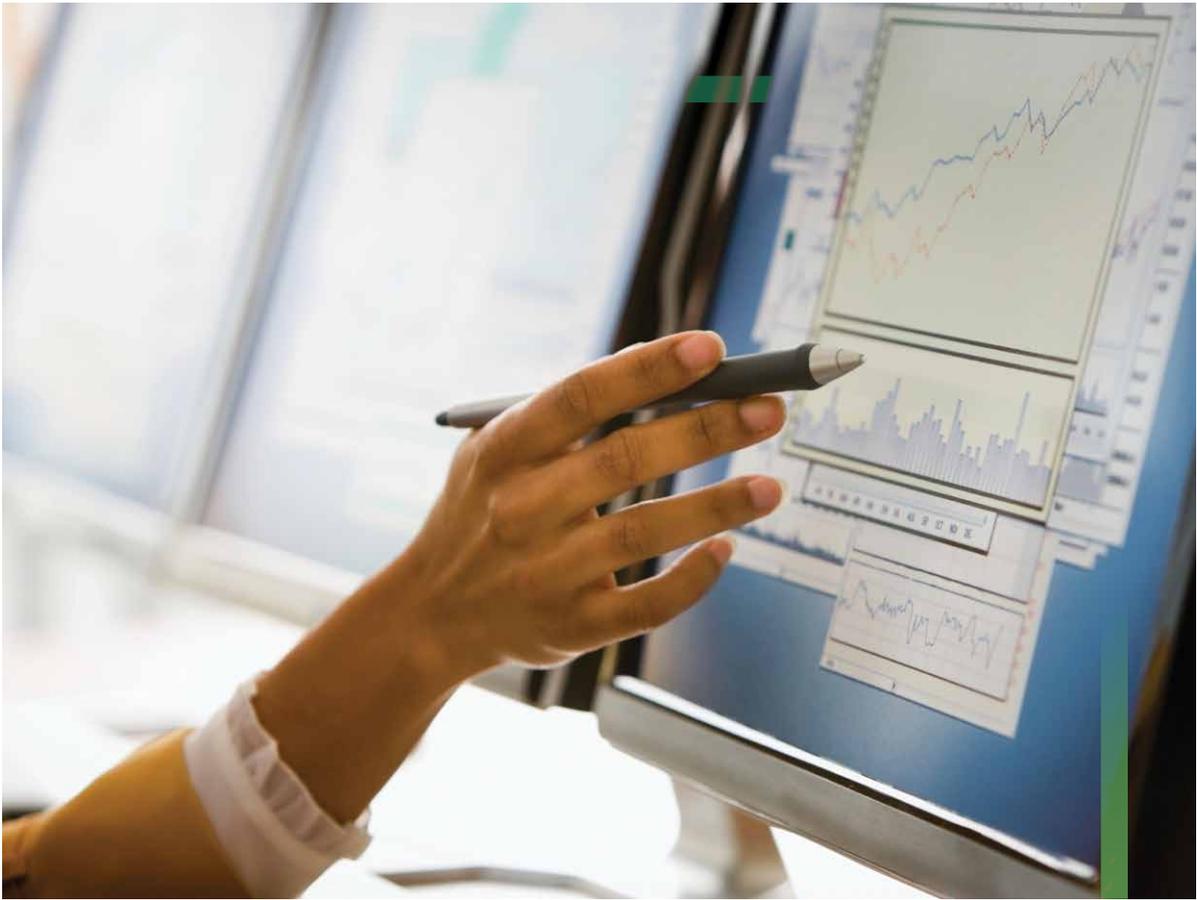
Table 2 sets out the costs and benefits for each of the target options. The figures are expressed in millions of dollars (\$M) as net present values (NPV) for all costs and benefits between 2016 and 2050. A discount rate of 4 per cent has been applied¹⁰

TABLE 2: COSTS AND BENEFITS OF VEET TARGET OPTIONS, NPV 2016 TO 2050 (4% DISCOUNT RATE), \$MILLION

		5.4M - 3 year	5.8M - 3 year	6.2M - 3 year	5.8M - 5 year	6.2M - 5 year	
Costs	Cost of certificates	384.6	475.8	603.3	876.3	1,060.1	
	Compliance costs	Low	7.7	9.5	12.1	17.5	21.2
		High	26.9	33.3	42.2	61.3	74.2
Total Costs	Low	392.3	485.3	615.4	893.9	1,081.3	
	High	411.6	509.1	645.5	937.7	1,134.3	
Benefits	Avoided energy market costs	566.0	594.8	645.3	1,309.4	1,467.0	
	Avoided GHG emissions	Low	350.1	366.4	403.8	662.2	695.2
		High	1,412.2	1,480.7	1,596.4	2,537.8	2,654.5
	Improved air quality	151.6	164.3	174.9	289.5	308.8	
Total Benefits	Low	1,067.7	1,125.6	1,224.1	2,261.1	2,471.0	
	High	2,129.8	2,239.9	2,416.6	4,136.7	4,430.2	
Net Benefit	Low	656.1	616.5	578.5	1,323.4	1,336.7	
	High	1,737.4	1,754.5	1,801.2	3,242.9	3,349.0	

⁹ International Energy Agency 2014, Capturing the Multiple Benefits of Energy Efficiency. OECD/IEA, Paris.

¹⁰ The Victorian Guide to Regulation (Toolkit 2: Cost benefit analysis) states that "when undertaking a NPV for a regulatory proposal a real discount rate of 4 per cent should be used" (page 11).



Cost of certificates

We calculate the primary cost of the VEET scheme based on how many certificates are needed to meet the target, and the price of these certificates.

Certificates are purchased by energy retail companies to demonstrate that they have met their individual emissions reductions targets under VEET. They have a price in the market, and this is how VEET generates the financial incentive to install energy efficiency measures in homes and businesses.

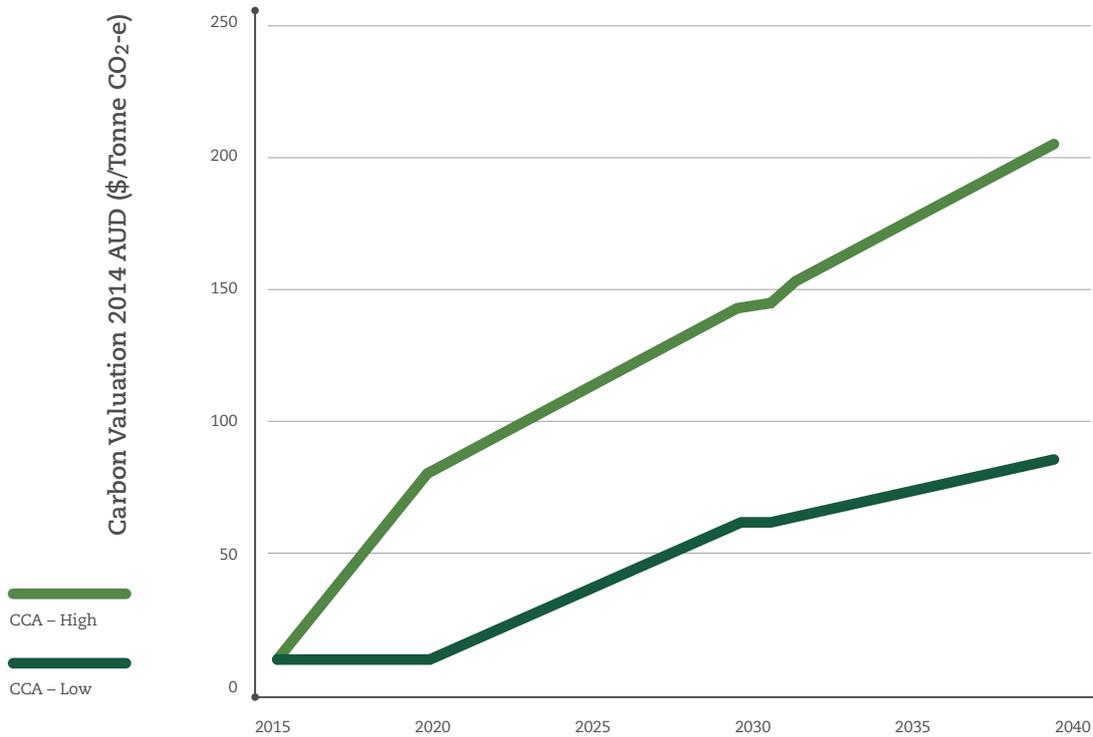
It is through the sale of certificates that accredited VEET energy service business can recover some of the costs of installing energy efficiency measures – for instance the costs of products, equipment, labour, sales, transport or administration, including certificate processing fees (\$1 per certificate). As a result, this is what has been used to calculate the primary costs of VEET.

Costs of compliance for energy retailers:

There are administrative costs to retailers associated with purchasing certificates, and reporting under the scheme. All retailers already have systems in place and there are no new data requirements proposed. These compliance costs have been modelled within a range of potential costs, from 2 per cent of certificate costs to 7 per cent of certificate costs, based on a previous review by NERA Economic Consulting and Oakley Greenwood¹¹.

¹¹ NERA Economic Consulting and Oakley Greenwood 2012 Analysis of Compliance Costs for a National Energy Savings Initiative Final Report for the Department of Climate Change and Energy Efficiency, page 21.

FIGURE 2: CARBON VALUES



Avoided energy costs:

VEET's primary benefit is reduced energy costs for homes and businesses, along with an equal or improved level of service from the installed appliances. Improving energy efficiency has a number of benefits; there are lower fuel and transmission costs due to a reduced demand for electricity. This lower level of overall energy demand also delays the need to invest in expanding energy generation or adding electricity network capacity. Essentially, these are avoidable costs that the energy sector would otherwise pass on to Victorian households and businesses.

Avoided greenhouse gas emissions:

Our use of electricity and gas contributes to increased carbon dioxide emissions and climate change. If we can avoid or reduce these emissions we stand to benefit by avoiding or reducing the negative consequences of climate change.

The most recent estimate for a value of CO₂-e abatement in Australia was undertaken by the Climate Change Authority (CCA) in 2014 as part of its Targets and Progress Review. This review contained high and low value scenarios, which provide a range of values to model. The Department has used both the high and low scenarios published by the CCA (adjusted to be in today's dollars) as shown in **Figure 2**¹².

'VEET's primary benefit is reduced energy costs for homes and businesses.'

¹² The CCA projected values to 2030. The Department has extrapolated the trend out to 2040.

Improved air quality:

Cleaner air is an additional benefit of reduced energy generation. We have estimated these health damage costs based on an approach established by the Australian Academy of Technological Sciences and Engineering (ATSE)¹³.

Sensitivity testing:

The assessment period for the cost benefit analysis is to 2050, as the modelling predicts there will be ongoing effects of the targets over that period.

In accordance with the guidelines on cost benefit analysis published by the Victorian Government, a real discount rate of 7 per cent can also be used.

According to the guidelines, this rate reflects the opportunity cost of capital (with similar risk profiles) for similar investments in the private sector.

Higher targets:

For higher targets than those tested above, the modelling shows that certificate prices rise markedly and there is a significant reliance on higher cost activities to achieve the target. As there has been very little uptake of higher cost activities in the VEET scheme to date, there is limited information on how the market would behave.

TABLE 3: COSTS AND BENEFITS OF VEET TARGET OPTIONS, NPV 2016 TO 2050 (7% DISCOUNT RATE), \$MILLION

		5.4M - 3 year	5.8M - 3 year	6.2M - 3 year	5.8M - 5 year	6.2M - 5 year	
Costs	Cost of certificates	362.7	449.2	570.5	800.1	970.8	
	Compliance costs	Low	7.3	9.0	11.4	16.0	19.4
		High	25.4	31.4	39.9	56.0	68.0
Total Costs	Low	369.9	458.1	581.9	816.1	990.2	
	High	388.1	480.6	610.5	856.1	1038.8	
Benefits	Avoided energy market costs	440.7	466.1	508.9	992.5	1107.6	
	Avoided GHG emissions	Low	254.3	266.0	293.9	477.7	500.7
		High	1088.2	1141.2	1227.6	1928.8	2015.1
	Improved air quality	118.3	128.7	137.3	221.8	236.7	
Total Benefits	Low	813.3	860.9	940.0	1691.9	1845.0	
	High	1647.2	1736.1	1873.7	3143.0	3359.5	
Net Benefit	Low	425.2	380.3	329.5	835.8	806.2	
	High	1277.3	1278.0	1291.8	2326.9	2369.3	

¹³ ATSE calculates that the Australian range for total health damage costs of coal-fired power stations (NOx, SO2 and PM10) is between AUD\$1.60/MWh and \$52/MWh, and that the mid-range for total health damage costs is AUD\$13.20/MWh. Source: ATSE 2009, Hidden Costs of Electricity Generation.

Given the difficulty of rigorously modelling higher targets, an additional analysis was undertaken to further examine this option. The analysis was based on extrapolation of data from the target cases discussed previously, and is therefore significantly less robust than those results. The analysis does, however, provide some insight into the trends and issues of setting higher targets.

The primary data required for this analysis is the certificate price at particular target levels and the impact on the energy market of reducing energy consumption. The certificate price was obtained by extrapolating the data initially provided by Sustainability Victoria for the residential activities and Energetics for the business activities.

Using this new certificate price and target, the other costs and benefits of the scheme were extrapolated from the earlier results.

A target of ten million tonnes CO₂-e per year for five years was chosen as a high target to test (see **Table 4**). The analysis indicated that an average \$85 certificate price would be required. In this case the certificate and compliance costs exceed the energy market benefits by around \$1,500 million.

As an example of scale, if these costs were spread over the Victorian electricity market they would represent an increase of around 3.4 c/kWh or approximately 15 per cent in retail tariffs. The bulk of the net benefit is generated by the avoided greenhouse gas emissions.

TABLE 4: EXTRAPOLATED COSTS AND BENEFITS OF HIGH VEET TARGET OPTIONS, 4% NPV 2016 TO 2050, \$MILLION

		5.8M - 5 year (modelled)	6.2M - 5 year (modelled)	6.9M - 5 year (projected)	10M - 5 year (projected)	
Costs	Cost of certificates	876.3	1,060.1	1,535.9	3,784.0	
	Compliance costs	Low	17.5	21.2	22.3	32.3
		High	61.3	74.2	78.1	113.1
Total Costs	Low	893.9	1,081.3	1,558.2	3,816.4	
	High	937.7	1,134.3	1,614.0	3,897.2	
Benefits	Avoided energy market costs	1,309.4	1,467.0	1,597.7	2,315.5	
	Avoided GHG emissions	Low	662.2	695.2	780.3	1,130.8
		High	2,537.8	2,654.5	2,984.5	4,325.4
	Improved air quality	289.5	308.8	344.0	498.6	
Total Benefits	Low	2,261.1	2,471.0	2,722.0	3,944.9	
	High	4,136.7	4,430.2	4,926.2	7,139.4	
Net Benefit	Low	1,323.4	1,336.7	1,108.0	47.7	
	High	3,242.9	3,349.0	3,368.0	3,323.0	
Net energy market benefit (avoided energy market costs - certificate & compliance costs)		393.7	359.2	11.6	-1,541.3	



An alternative target of 6.9 million tonnes CO₂-e per year for five years, at an average certificate price of \$50, was also tested. This shows a positive net benefit in the range of \$1,100 million to \$3,300 million. The energy market impact is mildly positive at \$12 million, representing a 0.03c/kWh benefit if spread across the electricity market.

It should be noted that both the scenarios tested have certificate prices well above those historically experienced within the VEET scheme. As mentioned earlier, the long run average certificate price is approximately \$18 compared to \$50 for the 6.9 million tonnes target and \$85 for the 10 million tonnes target.

These are very much indicative results which assume that the market can rapidly deliver a broad range of new activities which are yet to have any uptake in the VEET scheme. There is a risk that the market will be unable to respond as rapidly as required. Should the market be unable to deliver the new activities, this would cause certificate prices to reach the penalty price. This would mean that liable parties would pay the penalty price and the target would not be achieved.

'For higher targets, the certificate prices rise markedly increasing reliance on higher cost activities.'

Valuing of greenhouse gas emissions

An objective of the VEET scheme is to reduce greenhouse gas emissions. We valued these benefits enabling them to be included as part of the decision-making process for future of the VEET scheme.

We considered a range of carbon valuations in the analysis, as there is currently no official method for valuing emissions reductions in Australia or Victoria. It is important to use an approach which allows emission reductions to be valued over the life

of the analysis, as energy efficiency activities have the potential to sustain emissions reductions over a significant period.

This analysis uses the Climate Change Authority's carbon value, developed in 2014, as summarised in **Figure 2**. It was found to be the most appropriate available estimate and is broadly comparable with analysis completed by the Federal Treasury and ClimateWorks Australia.

Impact on bills

VEET affects all Victorian energy bills – directly by helping people reduce their energy consumption and therefore also their bills, but also indirectly by imposing costs on energy retail companies, that they then pass on to their customers.

To take these impacts into account, we modelled the potential impact on the 'average' energy bill for residential, small-to-medium enterprises (SMEs), and large business energy consumers. The average bill impacts figures are provided to indicate broad trends only and are separate from the cost benefit analysis. In particular, SMEs and large business energy consumers are particularly diverse groups, and assumptions regarding average energy bills and VEET savings are therefore only indicative.

Our modelling revealed that, on average, homes and businesses installing energy efficiency measures through VEET achieve lower power bills as a result.

Residential customers achieve annual electricity bill savings of up to \$150. There are also substantial annual savings for SMEs of up to \$670, and large businesses of between \$14,000 and \$16,500.

We anticipate that with higher targets there will be more direct beneficiaries of the scheme, but slightly lower per participant electricity savings, leading to lower per participant cost savings.

Average savings in electricity purchases for residential, SME and large business participants of the VEET scheme are outlined in **Tables 5, 6 and 7** respectively.

'On average, homes and businesses installing energy efficiency measures through VEET achieve lower power bills.'

TABLE 5: AVERAGE SAVINGS IN ELECTRICITY EXPENDITURE FOR PARTICIPANTS IN THE VEET, RESIDENTIAL CUSTOMERS, \$/ANNUM

VEET target	Average, 2016-2020	Average, 2021-2030	Average, 2016-2030
3 year, 5.4m target	132	165	149
3 year, 5.8m target	130	162	146
3 year, 6.2m target	124	155	140
5 year, 5.8m target	124	184	154
5 year, 6.2m target	119	183	166

Source: Jacobs' analysis using data on participant numbers and average saving per participant.

TABLE 6: AVERAGE SAVINGS IN ELECTRICITY EXPENDITURE FOR PARTICIPANTS IN THE VEET, SME CUSTOMERS, \$/ANNUM

VEET target	Average, 2016-2020	Average, 2021-2030	Average, 2016-2030
3 year, 5.4m target	578	724	651
3 year, 5.8m target	591	742	666
3 year, 6.2m target	600	747	674
5 year, 5.8m target	464	844	654
5 year, 6.2m target	455	842	713

Source: Jacobs' analysis using data on participant numbers and average saving per participant.

TABLE 7: AVERAGE SAVINGS IN ELECTRICITY EXPENDITURE FOR PARTICIPANTS IN THE VEET, LARGE BUSINESS CUSTOMERS, \$/ANNUM

VEET target	Average, 2016-2020	Average, 2021-2030	Average, 2016-2030
3 year, 5.4m target	13,272	15,848	14,560
3 year, 5.8m target	13,361	15,818	14,590
3 year, 6.2m target	13,250	15,501	14,376
5 year, 5.8m target	15,152	17,738	16,445
5 year, 6.2m target	14,315	17,684	16,561

Source: Jacobs' analysis using data on participant numbers and average saving per participant.

Comparison with other analyses

A number of analyses of the VEET and similar schemes in Australia have been released since the scheme was legislated in 2007. These analyses have generally found that the benefits of such schemes outweigh the costs¹⁴.

Despite this, a Victorian Government Business Impact Assessment (BIA) of the VEET scheme in 2014 found that for all of the options tested, the costs of the VEET scheme were likely to outweigh the benefits in future.

The current analysis finds the opposite, and instead reveals that the benefits of the VEET scheme are likely to outweigh the costs in future. The following differences drive this improvement in net benefits:

- **the cost of certificates modelled is lower** – driven in part by the rapid decrease in the cost of LED lighting since 2013. The unexpectedly rapid fall in the cost of LED lighting has been confirmed by a number of industry stakeholders.
- **private costs to participants are excluded** – as these are voluntary and likely to be offset by other private benefits to participants.
- **environmental benefits are included** – that is reductions in greenhouse gas emissions and improved air quality.
- **period of analysis** – the current analysis assesses costs and benefits to 2050, covering the full lifetime of the savings implemented during the VEET phases modelled. The 2014 BIA assessed costs and benefits to 2030. Having a longer timeframe increases the overall benefits as the modelling predicts there will be ongoing energy market benefits of the targets beyond 2030.

Further detail about these differences is provided below.

Private participant costs:

Some analyses of energy efficiency schemes include estimates for participant (private) costs where households and businesses make a voluntary contribution to the costs of new energy efficiency measures. However, most analyses do not include these costs, as participation in the scheme remains voluntary for households and businesses. While the VEET scheme provides an opportunity to participate, it is assumed households and businesses are unlikely to make a contribution to the cost of installing VEET scheme energy efficiency activities unless they also save at least equivalent costs elsewhere. This is a choice afforded to households and businesses and is not mandated under the scheme.

Private participant costs also provide information on the broader economic benefits of energy efficiency. For example, a major industrial energy efficiency upgrade under VEET is likely to require a financial contribution by the business. This financial contribution is only likely to be considered by the business if there are significant productivity benefits that outweigh costs. As productivity improvements are a policy objective, it is important that these benefits are considered to be (at least) offsetting the private costs, otherwise the implication would be that productivity improvements are a net cost and should be minimised.

¹⁴ For example: 2013 Assessment of Economic Benefits from a National Energy Savings Initiative <http://www.industry.gov.au/Energy/EnergyEfficiency/StrategiesInitiatives/EnergySavingsInitiative/Documents/EconomicbenefitsfromNESI.pdf>.

Private benefits drive scheme participation. One category of private benefit is the reduced replacement and maintenance costs created by certain kinds of energy efficiency upgrades. As an example, LED lights have longer lifespans than the lights they replace. The Department estimates that the reduced replacement costs associated with LEDs is around \$20-30 million over ten years. This benefit has not been included in the cost benefit analysis as it is expected that private savings will tend to more than offset private contributions.

Environmental benefits:

Power generation produces external costs, which are costs that are not included in the cost of energy. The BIA noted that the cost benefit analysis

would not include external costs relating to GHG emissions reductions. Air quality benefits were also not included.

Different period of analysis:

The VEET scheme considers the period of time over which energy efficiency activities are likely to continue to reduce energy. A significant number of VEET activities are considered to generate benefits past 2030. Shorter periods of time can be used in sensitivity analysis to test the impact of this assumption.



Other modelling issues

Persistence of benefits:

The analysis of benefits assumes that, once the effective life of appliances and devices installed under the VEET scheme is reached, that the benefits associated with those individual appliances stops. This is due to the assumption that end-users revert to their original behaviour, that more stringent building and equipment minimum standards are imposed, or that they would adopt the energy efficient option in the long term anyway.

However, in some cases energy savings may persist¹⁵. For example, once LED lights reach the end of their life, they are more likely to be replaced with LED lights than halogen lights. In other cases it is less clear if the energy saving will persist, for example when a stand-by power controller stops working it may not be replaced.

Assuming that some of the energy savings persist it will likely increase the benefits, although discounting will reduce the net present value of those benefits. A sensitivity analysis was undertaken assuming that 50 per cent of the savings from residential sector activities and commercial sector activities persist to the end of the study period. The net present value of the energy market benefits are increased by around \$12 million to \$33 million if the energy savings persist.

TABLE 8: SENSITIVITY OF NET PRESENT VALUE OF ENERGY MARKET BENEFITS TO PERSISTENCE ASSUMPTIONS, \$MILLION

Scenario	Without persistence	With persistence	Difference
5.4 million, 3 year target	441	453	12
5.8 million, 3 year target	466	492	26
6.2 million, 3 year target	509	542	33
5.8 million, 5 year target	993	1010	18
6.2 million, 5 year target	1108	1133	24

Jacobs' net present values are calculated for the period from 2016 to 2050 using a 7 per cent discount rate. In the persistence scenario, 50 per cent of the calculated energy savings from residential and commercial activities are assumed to continue after the end of the measure's life.

¹⁵ The savings would persist if at the end of the life of the VEET measure the consumer chose to replace like with like, without having to. For example, replace the LED down lights with new LEDs or a solar water heater with a new solar water heater, in the absence of a requirement to do so. In that sense the original VEET measure could be seen to have been responsible for the follow-on action.

The results are partly sensitive to the discount rates used. The net present value of the energy market benefits for alternative discount rates are shown in **Table 9**.

TABLE 9: SENSITIVITY OF NET PRESENT VALUE OF ENERGY MARKET BENEFITS TO DISCOUNT RATE, \$MILLION

Scenario	4% discount rate	7% discount rate
5.4 million, 3 year target	566	441
5.8 million, 3 year target	595	466
6.2 million, 3 year target	645	509
5.8 million, 5 year target	1309	993
6.2 million, 5 year target	1467	1108

Actual energy bill savings:

It should be noted that the actual energy bill savings for consumers participating in VEET are not considered in the above cost benefit analysis. Under Victorian Government guidelines this is classified as a 'transfer' benefit; that is, a transfer of a financial benefit to energy consumers from the energy sector.¹⁶

¹⁶ Department of Treasury and Finance 2014, Victorian Guide to Regulation Toolkit 2: Cost benefit analysis. State of Victoria, Melbourne.

'If energy savings persist, benefits are likely to increase.'

Question 1: New VEET target

What should the new VEET target be?

Please indicate your preferred option:

- 5.4 million tonnes CO₂-e per year for three years
- 5.8 million tonnes CO₂-e per year for three years
- 6.2 million tonnes CO₂-e per year for three years
- 5.8 million tonnes CO₂-e per year for five years
- 6.2 million tonnes CO₂-e per year for five years
- Other option (please specify level of target and length)

Please outline why you believe this option is preferred.

Question 2: Modelling the costs and benefits of the VEET scheme

Comments are invited on the modelling approach used to determine the costs and benefits of the VEET scheme.

Is there any additional data or information that should be considered?

Question 3: Future greenhouse gas emissions coefficient

Which greenhouse gas coefficient should be used to quantify the reduction in greenhouse gas emissions achieved by the VEET scheme?

- Existing marginal coefficient
- Updated marginal coefficient
- An average coefficient (as published in the National Greenhouse Accounts)
- Other option (please specify?)

Please outline why you believe this option is preferred.

Question 4: Valuing greenhouse gas emissions reductions

The Department has valued greenhouse gas emissions reductions attributed to the VEET scheme by adopting a carbon valuation series that was produced by the Federal Climate Change Authority as part of its 2014 Targets and Progress Review.

Is this approach appropriate for valuing greenhouse gas emissions reductions over the period 2016 to 2050?

8. Inclusion of large businesses in the VEET scheme

The VEET scheme was expanded to include the business sector from 2012 in order to increase the potential for energy efficiency activities to be undertaken at least cost. Business participation in VEET has to date been limited by the range of available activities, most of which are only relevant to smaller participants, and by the exclusion of large business sites.

At present VEET excludes sites registered with the Victorian Environment Protection Authority (EPA) Environment and Resource Efficiency Plans (EREP) program from generating certificates. This is because these businesses were already required to undertake energy efficiency upgrades under this program.

Any activity subsequently generated under VEET was not likely to be additional to business as usual. The EREP program has since closed and therefore we will now reconsider opportunities for large businesses and industry to participate in the scheme.

The present modelling covers energy efficiency opportunities in all Victorian businesses. The modelling also tests whether including or excluding large energy using businesses makes a significant difference to the scheme.

It found that there were opportunities for large businesses to benefit from VEET, and that including these businesses would potentially reduce certificate prices.

In strengthening the scheme, it will be necessary to consider if any businesses should be excluded from participating in future. It will also be necessary to consider a mechanism for any exclusion, given that the EREP program is no longer in effect.

This will not be the only chance to provide feedback on this issue. Inclusion or exclusion of large businesses in the scheme would require regulatory changes, which would be subject to further consultation.

Question 5: Business participation

Is there a case to exclude any business sector(s) from participation in the VEET scheme?

Please explain why this is your preferred option, and comment on how this should be implemented.

9. Participation in the VEET scheme by different segments of the community

Low income households

The VEET scheme currently has no targeted provisions for low income households. There is an increasing trend in Victoria of financial stress, payment difficulties and energy supply disconnections among low-income households, making it timely to consider how government can provide support. To date VEET has been dominated by energy efficiency measures delivered to homes at no cost or low cost. During 2009-2014 this included low-flow shower heads, standby power controllers, high efficiency lights and weather seals. Analysis undertaken in 2011 indicated that low-income households have in particular benefited from the VEET scheme¹⁷.

Modelling suggests that uptake of low-cost LED lighting for business and residential consumers will increase in future years. Low-income households are expected to be able to benefit from LED lighting upgrades, which may be low-cost or free to households. Other VEET activities requiring higher participant financial contribution may be harder for low-income households to access.

Options for additional support

The South Australian Retailer Energy Efficiency Scheme (REES), like VEET, requires energy retailers to achieve energy efficiency targets. In addition, the REES requires that a significant percentage of the energy efficiency

target is achieved by delivery of energy efficiency activities to low-income households (termed “priority group”), and that retailers deliver a set number of energy audits to priority group households. Priority group households are defined as those in which a resident holds an eligible Commonwealth Government-issued concession card, receives the South Australian Government energy concession or participates in a retailer hardship program.

An independent review of the REES scheme undertaken in 2013 recommended retaining the sub-target and audit requirements¹⁸.

Low income households’ uptake of energy efficiency activities are impacted by a range of issues, only some of which can be addressed by the VEET scheme. However, VEET may be an appropriate approach to targeting energy efficiency activities to low income households.

One administrative option may be to monitor uptake of VEET activities and consider intervention in the future if it is found that low income households move to receiving less benefits from VEET than is considered appropriate. This could occur if activities become dominated by business sector or high cost upgrades.

¹⁷ ABS 2011, Analysis of the Victorian Energy Efficiency Target Administrative Dataset.

¹⁸ Pitt and Sherry 2013, Evaluation of the South Australian Residential Energy Efficiency Scheme Final Report, p61.

The VEET scheme may specifically support low income households without amending the current scheme. For example through contributing to another program that is targeted at low income households, where the revenue from generating certificates in targeted households can be used to extend the reach of the program.

Alternatively, a similar approach to South Australia could be considered; audits and/or requiring a set level of certificates to be delivered to a defined group of low income households. This option would increase the likelihood that low income households receive energy efficiency upgrades. This would also increase the cost of the VEET scheme as there would be a cost to identifying such households and reporting on targets.

It should be noted that the modelling of future VEET targets assumed that there was no specific quota relating to low income households. Introducing

a low income quota into VEET could significantly change the market, and is likely to mean that any given target would be achieved at a higher certificate price.

The Government is also developing an energy efficiency and productivity strategy. Your comments on this issue will be considered in the VEET review process and in broader policy development.

Question 6: Low income household participation

Should the VEET scheme be amended to better ensure support for low income households?

Please outline how the VEET scheme could better support low income households, and comment on why this option should be preferred.



Encouraging more households and businesses to participate in the VEET scheme

VEET is a market based scheme. This means that undertaking energy efficiency activities is voluntary and there is an incentive for participants to implement the lowest cost energy efficiency activities from the suite of eligible energy efficiency activities. This is in contrast to rebate schemes which target a desired particular energy efficiency activity and the relevant incentive is set and relatively inflexible.

Business uptake:

Data shows that to date the take up of VEET activities has been substantially greater in the household sector than the business sector.

By allowing the market to find the lowest cost energy efficiency activities, the groups benefiting from the scheme are likely to vary over time. For example, the New South Wales Energy Savings Scheme (ESS) operates in a generally similar way to the VEET scheme. However in contrast, energy efficiency activities are currently taken up at a greater scale by businesses than by households. This difference is primarily attributable to differences in design of the two schemes.

Our Victorian target was extended to include businesses in 2012, and by the end of that year, business accounted for just 1.4 per cent of certificates (or emissions reductions) created. Now, business makes up 12.4 per cent of energy savings delivered through VEET. New activities, able to be taken-up by more business, may help further increase business participation from the program.

Regional and rural uptake:

We reviewed the uptake of VEET in Melbourne as compared with rural and regional areas in 2011¹⁹. Participation in VEET varied across Victoria, with different activities likely reflecting the different climate zones within Victoria, which alter the incentive for heating and cooling activities. Variations across regional locations are also likely to reflect the relatively lower costs for businesses to deliver VEET products and services within Melbourne. Participation in rural and regional areas is likely to increase as activities more suited to rural and regional businesses are introduced.

Question 7: Encouraging more households and businesses to participate in the VEET scheme

In addition to expanding the range of energy efficiency activities available in VEET, should any other action be taken to target participation by certain groups?

¹⁹ ABS 2011, Analysis of the Victorian Energy Efficiency Target Administrative Dataset.

10. Introduction of new energy efficiency activities and revising existing activities

Process for new and revised energy efficiency activities

Any changes to the existing energy efficiency activities within the VEET scheme, or the introduction of new activities, will require regulatory amendments. This includes a further opportunity for your input in a separate consultation process. You will be invited to propose new activities and comment on proposed changes to activities, so we can consider a wide range of views in determining changes to the scheme.

Scheme changes will be announced well in advance to allow stakeholders appropriate time to adapt their business models.

A process has been initiated to review existing energy efficiency activities and call for submissions on new activities. The steps for introducing new activities are outlined here:

www.energyandresources.vic.gov.au/esi-newactivity

We are currently reviewing all previous submissions, looking for any existing proposals which should be fast tracked for consideration. Dates will shortly be released on the key stages for your input into this process.

Question 8: New and revised energy efficiency activities

Please suggest up to five activities that should be prioritised for revision or introduction to the VEET scheme.

Please outline why you believe these activities should be prioritised.

‘You will be invited to propose new activities and comment on proposed changes.’

11. Improving the VEET scheme

The Victorian Government is making VEET stronger. This will include setting forward targets, adding new activities, and revising existing ones. It also includes thinking about opportunities to improve the scheme in the context of broader energy efficiency and climate change policy considerations.

Coordination with related programs

The VEET scheme remains the core state program delivering energy efficiency to the community.

The Victorian Government is also working with consumers, industry and sector experts to develop an ambitious and achievable energy efficiency strategy that includes VEET, and delivers both individual and statewide benefits.

During 2015, the Government will review the *Climate Change Act 2010* and consider an emissions reduction target for the state.

The VEET scheme also operates in the context of the Commonwealth Government Emissions Reduction Fund.

This context is a key consideration for us as we strengthen VEET and improve its outcomes for the community.

Harmonisation with other jurisdictions

Other states and territories have schemes similar to the VEET scheme. The NSW ESS, the REES, and the Australian Capital Territory's Energy Efficiency Improvement Scheme (EEIS).

The Victorian Government continues to support appropriate coordination between these schemes.

Question 9: improving the VEET scheme

Please suggest up to three changes which should be made to improve the VEET scheme.

Please outline why you believe these changes should be a priority.

12. List of questions

1. What should the new VEET target be?

Please indicate your preferred option:

- 5.4 million tonnes CO₂-e per year for three years
- 5.8 million tonnes CO₂-e per year for three years
- 6.2 million tonnes CO₂-e per year for three years
- 5.8 million tonnes CO₂-e per year for five years
- 6.2 million tonnes CO₂-e per year for five years

Other option (please specify level of target and length)

Please outline why you believe this option is preferred.

2. Comments are invited on the modelling approach used to determine the costs and benefits of the VEET scheme.

Is there any additional data or information that should be considered?

3. Which greenhouse gas coefficient should be used to quantify the reduction in greenhouse gas emissions achieved by the VEET scheme?

- existing marginal coefficient
- updated marginal coefficient
- an average coefficient (as published in the National Greenhouse Accounts)
- other option (please specify?)

Please outline why you believe this option is preferred.

4. The Department has valued greenhouse gas emissions reductions attributed to the VEET scheme by adopting a carbon valuation series that was produced by the Federal Climate Change Authority as part of its 2014 Targets and Progress Review.

Is this approach appropriate for valuing greenhouse gas emissions reductions over the period 2016 to 2050?

5. Is there a case to exclude any business sector(s) from participation in the VEET scheme?

Please explain why this is your preferred option, and comment on how this should be implemented.

6. Should the VEET scheme be amended to better ensure support for low income households?

Please outline how the VEET scheme could better support low income households, and comment on why this option should be preferred.

7. In addition to expanding the range of energy efficiency activities available in VEET, should any other action be taken to target participation by certain groups?

8. Please suggest up to five activities that should be prioritised for revision or introduction to the VEET scheme.

Please outline why you believe these activities should be prioritised.

9. Please suggest up to three changes which should be made to improve the VEET scheme.

Please outline why you believe these changes should be a priority.

ACCESSIBILITY

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