Submission Guidelines for the creation of new activity categories to cover small and medium enterprises

March 2011

State Government Victoria

DEPARTMENT OF PRIMARY INDUSTRIES | energy

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1. Introduction

The Victorian Government is committed to providing an affordable, reliable and sustainable energy supply. The first three years of the Energy Saver Incentive (ESI) scheme 2009 to 2011, incentivised household energy efficiency activities. For the next three years of the scheme small and medium enterprises may also be included as parties able to benefit from energy efficiency activities.

This guideline provides information to allow interested parties to propose new energy efficiency activities relevant to small and medium enterprises, for potential inclusion in the ESI scheme.

The ESI, also known as the Victorian Energy Efficiency Target (VEET), imposes legislative obligations on energy retailers under the *Victorian Energy Efficiency Target Act 2007* ('the Act') to contribute to reducing greenhouse gas emissions by acquiring energy efficiency certificates.

The objectives of the Act are to:

- Reduce greenhouse gas 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.

Section 15 of the Act describes the kinds of activities which may be prescribed in regulations as activities for which certificates may be created under ESI. Activities must result in a reduction in greenhouse gas emissions that would not have otherwise occurred.

The ESI scheme commenced on 1 January 2009 and is administered by Victoria's Essential Services Commission (ESC). The first phase of the scheme, to be completed by the end of 2011, will save 8.1 million tonnes of greenhouse gas from being emitted over the lifetime of the activities undertaken. This phase incentivised household energy efficiency activities.

The second phase of the scheme will run from 2012 to 2014 and is proposed to include energy efficiency activities relevant to the residential sector and also extend coverage to small to medium enterprises.

The Opportunity

ESI sets a target for greenhouse abatement resulting from the implementation of energy efficiency activities. It requires energy retailers which have more than 5000 customers to meet their specified targets by acquiring and surrendering certificates that may be created for undertaking energy efficiency "activities" that are prescribed in the Regulations ('prescribed activities'). The targets allocated to each retailer are based on their acquisitions of electricity and gas in a given year.

The Victorian Energy Efficiency Target Regulations 2008 ('the Regulations') set out, amongst other things, the activities for which certificates may be created. Specific details of current prescribed activities can be accessed from the Essential Services Commission website (http://www.esc.vic.gov.au/public/VEET).

Assessing eligible activities

The VEET Activities Review Panel was established by the Department of Primary Industries (DPI) to assess applications for potential new activities. If activities are considered suitable for inclusion, recommendations to amend the Regulations will be made.

DPI invites interested parties to provide submissions for activities which may be eligible for inclusion in the VEET Scheme, based on the criteria contained in these Guidelines. These criteria have been based on the objectives of the Act and Regulations, and practical administrative considerations.

The current round of submissions will focus on extending the scheme to small and medium enterprises, following a 'deeming' approach as is currently utilised in the residential sector. The deeming approach uses an algorithm to calculate the number of certificates allocated to each activity, where the number of certificates is based on the estimated additional lifetime greenhouse abatement from implementing a specific energy efficiency measure, and one certificate is equal to one tonne of lifetime abatement. Appendix A provides an example of this approach.

Eligible activities under the VEET Scheme are generic energy efficiency measures, and do not relate to a specific product (as identified by a brand or model number). Proposals for new activities should be based upon a generic energy efficiency measure with reference to gaps in the current scheme. Proposals may also be based upon new activities that the Regulations currently do not adequately accommodate.

Prior reading

Interested parties are advised to consider the following documents in preparing their submissions:

- *Victorian Energy Efficiency Target Act 2007*
- Victorian Energy Efficiency Target Regulations 2008

- Victorian Energy Efficiency Target Guidelines October 2010

The Regulatory Impact Statement prepared in respect of the proposed Victorian Energy Efficiency Target Amendment (Scheme Target) Regulations 2011 was released in March 2011. This document will also provide useful information on small to medium business energy efficiency opportunities and can be downloaded from the DPI website at http://new.dpi.vic.gov.au/energy/policy/efficiency.

No representation or warranty

By accepting an application, DPI makes no representation or warranty that a new activity will be approved for the purposes of the ESI.

Cost of preparing submissions

Parties are responsible for the cost of preparing and lodging a submission and all other costs arising out of the preparation process, including independent testing and the costs of any third persons engaged by the party. DPI may publish the information received without payment to submitting parties.

Publishing of submissions

Parties should be aware that DPI may publish a submission and associated relevant information in either printed or electronic form. DPI understands the need to keep commercial matters confidential in appropriate circumstances. If any elements of a submission or associated information are to be regarded as confidential, and not to be published, that information should be clearly identified to DPI. Confidential sections of a submission must be clearly labelled “commercial in confidence”.

Independent testing

In lodging a submission, parties acknowledge DPI’s right to engage consultants and contractors to assist it in the assessment process, and to disclose information (that might otherwise be identified as confidential by a party) to such persons for those purposes.

Use of these submission guidelines

Submitting parties should provide the information requested in the format outlined in these guidelines, and enclose additional information where required. Submissions should address:

- Section 2 – Summary Details
- Section 3 – Claims Against Assessment Criteria
- Section 4 – Additional Criteria

Further information

DPI may ask parties who have lodged a submission to provide further information, or to clarify the information provided.

How to lodge a submission

Closing date for the current round of submissions is **30 May 2011.**

Submissions should be lodged as follows:

By email-

Energy Saver Incentive - New Activities Submission
energysaverincentive@dpi.vic.gov.au

or in writing-

Energy Saver Incentive- New Activities Submission
Energy Sector Development Division
Department of Primary Industries GPO Box 4440
MELBOURNE VIC 3001

2. Summary details

Identity of interested party

- Name
- Company Name (if applicable)
- ABN/ACN (if applicable)
- Address

Contact person

- Name
- Telephone – including mobile
- Email

Summary of proposal

Explain why the activity should be included in the ESI scheme as a new prescribed activity.

- Briefly describe the activity, including its relevance to the small to medium business sector (maximum 100 words)
- Explain how this activity meets the key objectives of the ESI scheme and the requirements for prescribed activities (refer to Section 15 of the Act).

3. Claims against assessment criteria

3.1 Estimate of average energy & greenhouse savings

In this section you will need to establish the basis for the claimed energy and greenhouse saving resulting from the proposed activity. To assist interested parties, an example of a response, for purposes of this section, is included at Appendix A.

- Provide and support an estimate of the annual and lifetime energy savings which are achieved for the average Victorian business each time this activity is implemented. Explain how you have arrived at this estimate, considering the key variables that significantly impact on this calculation, particularly: business activity, fuel type, relative product efficiency, product life, and usage of products or other human behaviour.
- Describe and quantify where appropriate, any significant impact on energy savings that could be caused by regional location, climate zone or type of business activity.
- List all available supporting data. If a product is involved, describe how the savings can be verified through supporting data. Provide details of relevant recognised test standards[1] which can be used to assess the energy performance of any products or action relevant to this activity. Please note if a recognised test standard is not currently available, provide a proposed standard approach for assessing the energy performance of the activity.
- Provide evidence to support your claim that the proposed savings are additional to business as usual (BAU). This may include providing information on current uptake of the activity under BAU.
- Comment on the likelihood and quantum of rebound that may be generated by the activity. Rebound is any increased use of energy that may be a direct consequence of implementing the activity.
- You may also provide an estimate of the number of VEET certificates generated by the activity, by providing an estimate of the annual and lifetime greenhouse savings which are achieved, based on greenhouse coefficients (provided in Appendix A, part 3). Please describe any algorithms you have used, and indicate any discount factors to account for uncertainties associated with the size of the energy savings. *(Note that if the proposed activity is accepted any final algorithm used may not be the same as the one you have proposed.)*
- In presenting your assumptions, please carefully consider eligibility under Section 15 of the Act. This should include consideration of current or proposed regulatory requirements or other policy measures which could affect the level of savings achieved under this activity.

3.2 Implementation of the proposed new ESI activity

This section is used to consider how the activity may be implemented in businesses. Most ESI activities require evidence of installation of a device, item of equipment, appliance, product, building material, etc. This is to provide certainty that the activity has been undertaken and to assist with auditing requirements.

- Please provide details of the level of qualification, certification or other appropriate evidence required to implement the proposed activity.
- Please identify any occupational health and safety (OHS) issues associated with this activity, and how they are to be addressed. Please provide supporting evidence to demonstrate this process will effectively address any OHS issues.
- Identify any existing training, accreditation or licencing regimes that may be relevant to the activity.

3.3 Likely cost-effectiveness of the activity and market potential

Your response to this section will provide the panel with information regarding the cost of implementing the activity and the likely uptake.

- Please provide your estimate of the likely cost of implementing this activity (including capital costs and installation costs in the context of the ESI scheme) and the proportion of this cost that you anticipate businesses will be prepared to pay.

[1] These could be Australian Standards, widely used international standards, or standards and tests used as the basis of certification schemes in Australia or other countries.

- Please provide your estimate of the likely take-up[2] of this activity in the context of the ESI scheme. This should include your estimate of the total size of the potential market (eg total number of installations possible), as well as the expected number of installations during a one-year period. Please provide supporting evidence to show that your expected level of take-up is realistic.

3.4 Innovation and industry development

This section analyses the positive impacts on industry

- Please discuss any product or service innovation, or any industry development that might arise from the inclusion of this activity in the ESI scheme, including any likely investment or employment creation in Australia/Victoria. Please provide evidence to justify any claims made.

3.5 Compliance and verification

Scheme compliance and verification of savings are important elements of the ESI scheme. For consideration as a new activity, proposals must identify that compliance is verifiable from a practical perspective.

- Please explain how you anticipate that it will be possible to verify compliance with the proposed activity, and the likely administrative costs of this.
- Please explain how you anticipate that energy savings associated with the product can be objectively measured.

[2] Take-up refers to the total number of times the activity is implemented.

4. Additional considerations

DPI will also assess each proposal against three criteria that examine the holistic impact of proposals on the scheme. Parties may choose to make further claims against each of the criteria.

Respondents are invited to note if the activity is also likely to be applicable to the residential sector.

4.1 Quality standards

- Please describe existing defined standards that underpin quality assurance and consistency of performance.
- Where defined standards do not exist, please discuss the risk of quality expectations not being met and the impact on the reputation of the scheme.

4.2 Consistency with other schemes

- Please provide information regarding any links to activities and specifications eligible in similar schemes in other state jurisdictions, to promote consistency wherever possible.

4.3 Risks

- Please provide details of any other benefits or risks associated with the proposed activity.

Appendix A

Example of response for 3.1 Estimate of average energy & greenhouse savings - Low Flow Shower Rose

1. Provide details of recognised standards

The Australian Standard *AS/NZS 3662:2005 Performance of Showers for Bathing* specifies performance requirements for shower roses, and *AS/NZS 6400:2005 Water Efficient Products – Rating and Labelling* specifies requirements for the rating of products for water efficiency, and includes the associated registration, labelling and, where applicable, minimum performance requirements.

This activity is based on the replacement of an existing un-rated (or non-low flow) shower rose with a shower rose which complies with the requirements of AS/NZS 3662:2005 and has a Water Efficiency Rating of at least 3-Stars under the WELS scheme, as measured by AS/NZS 6400:2005.

2. Provide an estimate of the annual and lifetime savings achieved by the average Victorian household

Input Data/Assumptions	
Av. number of people per household	2.41
Av. number of showers per day per person	0.9
Av. flow rate of existing unrated shower rose (L/min)	12
Av. time for shower - existing shower rose (mins)	6.7
Av. flow rate for 3-Star shower rose (L/min)	8.1
Average shower time for 3-Star shower rose (Mins)	6.9
Cold water temperature – Tc (ºC)	14.5
Hot water temperature - Th (ºC)	60
Average shower temperature - Ts (ºC)	40
Assumed life of the saving (Yrs)	10
Discount factor (to take into account BAU uptake)	80%

Victorian water heating penetrations & performance

Type of water heater	**Av. Stock Conversion Efficiency**	**Penetration**
Electric	98%	28.9%
Solar electric or heat pump	230%	1.0%
Natural gas	82%	67.9%
LPG/other	82%	1.5%
Solar gas	215%	0.1%
Wood	55%	0.6%

Estimated annual water saving for installing LF shower rose

= 2.41 x 0.9 x 365 x [(12 x 6.7) – (8.1 x 6.9)]
= 19,404 Litres/year at 40ºC

% of water saving which is hot water

= (Ts – Tc)/(Th – Tc) x 100%
= (25.5/45.5) x 100%
= 56%

Estimated annual hot water saving for installing LF shower rose

= 19,404 x 56%
= 10,866 Litres/year at 60ºC

Base energy saving (MJ/Yr)

= [Litres x (Th – Tc) x 4.186] / 1000
= 10,866 x 45.5 x 4.186 / 1000
= 2,070 MJ/Yr

The annual energy savings for the average Victorian household are calculated by taking into account the average conversion efficiency of each type of water heater, and the penetration of each type of water heater.

Type of water heater	**Conversion Efficiency**	**Unit Energy Saving (MJ/Yr)**	**Penetration**	**Weighted Saving (MJ/Yr)**
Electric	98%	2,112	29%	612.5
Solar electric or heat pump	230%	900	1%	9.0
Natural gas	82%	2,534	68%	1,716.3
LPG/other	82%	2,534	2%	50.7
Solar gas	215%	963	0.1%	1.0
Wood	55%	3,764	1%	37.6
			Total Saving	**2,427.1**

Estimated lifetime savings

= 2,427.1 x 10
= 24,271 MJ

Estimated lifetime saving taking into account the discount factor

= 24,271 x 80%
= 19,417 MJ

3. Estimate the number of VEET certificates

To estimate annual greenhouse savings the weighted annual savings for each type of water heater are multiplied by the greenhouse coefficient for the relevant fuel.

Type of water heater	Weighted fuel saving (MJ/Yr)	Greenhouse Coefficient (kg/MJ)	Greenhouse Saving (kg/Yr)
Electric	612.5	0.2675	163.8
Solar electric or heat pump	9.0	0.2675	2.4
Natural gas	1,716.3	0.0573	98.3
LPG/other	50.7	0.065	3.3
Solar gas	1.0	0.0573	0.06
Wood	37.6	0.014	0.5
			268.4

Estimated lifetime greenhouse abatement

= 268.4 x 10
= 2,684 kg = 2.684 Tonnes

Estimated lifetime greenhouse abatement, taking into account the discount factor

= 2.684 x 80%
= 2.15