The Department of Economic Development, Jobs, Transport and Resources would like your feedback about a new method, known as Treatment and Control, for determining energy savings for the Victorian Energy Efficiency Target (VEET) scheme.

The VEET scheme

The Victorian Energy Efficiency Target (VEET) scheme is a market-based scheme that incentivises energy efficiency upgrades, reduces greenhouse gas emissions, encourages investment and jobs and develops technology in Victoria.

Under the VEET scheme, accredited organisations known as Accredited Persons (APs) can create certificates known as Victorian Energy Efficiency Certificates (VEECs) for undertaking energy efficiency activities. Each VEEC is equivalent to one tonne of greenhouse gas reduced or avoided. The scheme is administered by the Essential Service Commission (ESC).

The Victorian Government is strengthening the VEET scheme. As part of this, there is a need to create greater opportunities for businesses and other consumers to benefit from the scheme.

Project Based Activities

Until now, the methods used for determining the energy savings for activities under the VEET scheme have all been what are known as ***deemed methods***. This means that the calculations used regarding the energy savings of any given activity have been based on reasonable averages for such things as the normal efficiency of a certain product and the operating hours for which it is used. Deemed methods are specific to individual products.

However, some situations need a more detailed and tailored approach to determining energy savings. For this reason three new measurement methods are being proposed, known as ***Project Based Activities*** (PBAs).

These are activities where the number of certificates that can be claimed is specific to a given project. They will often involve the direct measurement of energy consumption and are designed to credit a wide range of technologies. The department is seeking your feedback about each of these proposed new methods. This document explains one of these methods, known as ***Treatment and Control***.

Reading this document

This document is intended to be read in conjunction with the proposed amendments to the VEET Regulations to do with the Treatment and Control method. These will be added as new Schedule 39. Please refer to the proposed amendments to the Regulations before providing any feedback. These can be found online at [www.energyandresources.vic.gov.au/esi](http://www.energyandresources.vic.gov.au/esi)

Treatment and Control method

The Treatment and Control method is designed to incentivise providing energy efficiency goods or services to a large group of energy consumers, such as households or small businesses.

These goods or services are called the ***treatment*** and the sites that receive these goods or services are collectively called the ***treatment premises[[1]](#footnote-1)***.

The Treatment and Control method creates a way of measuring the effect of the treatment by comparing the treatment premises to a group of sites which did not receive the treatment, called the ***control premises***.

It is envisaged that most activities that use this method are likely to be those that seek to influence behaviour change, such as:

* household energy audits that include tailored advice about changing certain energy use behaviours
* initiatives that target specific energy saving behaviour changes, such as turning down the heater thermostat or taking a shorter shower
* discounts or vouchers for the purchase of new energy efficient equipment.

How the method works

Participating sites must be randomly selected from a larger group of similar sites (called a ***population***). An example of a population might be the residential customers of a specific energy retailer living in a certain area.

Assigning any given premises to either the treatment group or the control group must be done in an unbiased manner. In other words, any site in the population must have the same chance as any other site of being selected in either the treatment or the control premises. Because both groups of premises are selected randomly, it is assumed that, before the treatment, the average energy consumption per site is the same for each group. The energy saving that can be claimed is the difference in energy consumption for the two groups after the treatment.

In order to ensure that the control group continues to be similar to the treatment group, the method contains rules to prevent manipulation of the control group. Specifically, an AP must not provide goods or services to the control group aimed at increasing its energy consumption.

Included sites

When calculating the energy saving for the project, the energy consumption of all the sites must be included. This includes any sites in the treatment group which are offered the treatment but which refuse it.

From time to time a site may need to be removed from either the treatment group or the control group. A site may be removed when it is ***affected by attrition***, which is when:

* the energy account for the site is terminated or
* the occupant of the site withdraws their permission for their data to be used or
* the meter at the site fails and is not repaired in a timely manner.

The circumstances where this should occur are specified in Division 3 of Schedule 39.

The t-test

The method assumes that energy has been saved if the average household energy consumption of the treatment group can be demonstrated to be significantly lower than the average household energy consumption of the control group. This is determined using a statistical test called a t-test.

The t-test is a very common statistical test used in science, economics and psychology to determine whether there is a statistically significant difference between two groups; in other words, that the variation is greater than the variation that would occur due to chance.

Required population size

In order to be able to demonstrate that a treatment has had an effect, Treatment and Control projects may need to involve large populations – potentially tens of thousands of sites. The required population size will depend on how easy it is to statistically demonstrate that a treatment has had an effect. In general, the larger and more similar a population is, the easier it is to pass the t-test.

If the sites in the population have a highly variable energy consumption it will be more difficult to separate the effect of the treatment from the background variability. Similarly, treatments which only have a small impact on energy consumption may require a very large population.

Accredited statistician

The method requires confirmation from a statistician accredited with the Statistical Society of Australia that the selection of the treatment and control groups is random.

In determining whether energy savings have been calculated correctly, the ESC may require that the calculations be assessed by a suitably qualified person before it issues VEECs. This will probably be an accredited statistician. The requirements relating to this will be outlined in more detail in new ESC guidelines for the assessment of Project Based Activities.

Three sub-methods

Accredited Persons must choose one of the following three sub-methods to calculate energy saved:

* Sub-method 1: compare the daily household energy consumption of the treatment group and the control group.
* Sub-method 2: compare the change in daily household energy consumption of the treatment group and the control group.
* Sub-method 3: perform regression analysis to separate the effect of the treatment from other changes in energy consumption.

Each of these sub-methods has its own advantages. A statistician can provide advice as to the one best suited to any given project.

This method is similar to the Aggregated Metered Baseline method in the New South Wales (NSW) Energy Saving Scheme (ESS) and the South Australian Retailer Energy Efficiency Scheme and the Aggregated Small Energy Users method in the Emissions Reduction Fund (ERF).

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| **Question:**  The proposed method is similar to existing methods in the NSW ESS and the Commonwealth ERF. Is this alignment appropriate? |

What if a population also carries out deemed VEET activities?

It is possible that a population being measured using the Treatment and Control method may also undertake deemed VEET activities while a treatment is underway. There are proposed rules governing how this should be measured.

The treatment cannot directly promote deemed VEET activities. It is therefore assumed that the rate at which these activities are undertaken will be the same for the treatment group as for the control group. Accordingly, the Treatment and Control method assumes that energy savings from deemed activities will be equal in both groups. Therefore, the energy savings from these deemed activities will not be included in the energy savings of a Treatment and Control project.

Nonetheless, it is possible that treatment activities may indirectly cause sites in the treatment group to undertake some deemed VEET activities at a greater rate than would otherwise have been the case. These activities cannot be counted both as a deemed activity and as part of the Treatment and Control project. It is proposed that the Regulations be amended to give the ESC the power to calculate an ***uplift factor*** to account for any greater rate of uptake of deemed VEET activities in the treatment group. This would be established under new section 6AD. This uplift factor would reduce the number of VEECs credited to the Treatment and Control project.

Emissions Reduction Fund

Under the VEET Regulations APs can claim credits under the Commonwealth Emissions Reduction Fund (ERF) or under VEET but not under both. For a Treatment and Control project the occupant of the site may undertake other activities of which the AP is not aware.

The proposed method therefore includes an uplift factor to account for this. It gives the ESC the power to determine the extent to which energy savings from a Treatment and Control project have also been credited under the ERF and accordingly reduce the number of VEECs for a project by this amount.

Renewable Energy Target

Under the proposed Regulations, APs can either claim credits under the Commonwealth Renewable Energy Target (RET) or under VEET but not under both, unless they are claiming for solar water heaters.

The proposed method therefore includes an uplift factor to account for this. It gives the ESC the power to determine the extent to which energy savings from a Treatment and Control project have also been credited under the RET and accordingly reduce the number of VEECs for a project by this amount.

Administrative requirements

Project plan

Accredited Persons would be required to submit a project plan before the treatment starts. The proposed requirements relating to Treatment and Control project plans are set out in Regulation 6AA, clause (5) and include:

* a description of the treatment activities
* the sub-method used
* whether the project includes electricity, natural gas or both
* a list of the addresses in the treatment and control groups
* a risk management plan and
* written confirmation from a statistician that the treatment and control groups were selected in an unbiased manner.

The ESC must approve the project plan. It can only approve projects which it deems ‘reasonably likely’ to reduce greenhouse gas emissions. This gives the ESC the power to reject illegitimate projects.

To assist this process, it is possible that the ESC might maintain a public register of Treatment and Control projects, to be listed from the project plan stage. However, there are concerns that this could compromise commercial confidentiality.

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| **Question:**  Should a public register be maintained? If so, what information (e.g. project type, site address, name of AP, or other information) should be placed on such a register? |

Project variations

It is possible to change the activities undertaken after the treatment has started. In order to do this, a project variation must be submitted to the ESC. This variation must be accompanied by an updated risk management plan and must be received by the ESC before any new treatment activities are undertaken.

In addition, a project may be affected by attrition. If this occurs, the AP may need to add new sites to the project in order to continue to pass the t-test. This can be done by completing a project variation at the start of any new reporting period. An accredited statistician must confirm that the new sites have been added in an unbiased manner.

The use of approved products

Where products installed as part of a Treatment and Control project happen to be products that are already registered under VEET, these products must meet the existing VEET product standards. For example, if the treatment involves installing LED lights which are a registered product under schedule 21, these lights must meet the existing schedule 21 product requirements.

Disposal of products removed

It is proposed that certain products must be decommissioned if removed as part of a Treatment and Control project. The proposed changes to the Regulations would give the ESC the power to maintain a register of such products under new Regulation 9A. It is also proposed that the existing decommissioning requirements for products installed under a deemed method be applied to the new PBA methods.

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| **Question:**  Do you have any comments on this proposed method? |

Consultation day

There will be a public consultation day for interested parties in June 2016.

Please see the department’s website for further information including, time, date and location:  
[www.energyandresources.vic.gov.au/esi](http://www.energyandresources.vic.gov.au/esi)

How to provide your comments

Responses should clearly state the issue and, where relevant, make reference to specific sections of the draft Regulation.

Submitting by email

Submissions may be emailed to [energysaver.incentive@ecodev.vic.gov.au](mailto:energysaver.incentive@ecodev.vic.gov.au).

Please use the subject:   
*VEET: Treatment and Control*

Submitting by post

Responses may also be provided in writing to:

*VEET: Treatment and Control*Energy Policy and Programs  
Department of Economic Development, Jobs, Transport and Resources  
GPO Box 4509  
Melbourne VIC 3001

Closing date for submissions

Please refer to the departmental website for the closing date:  
[www.energyandresources.vic.gov.au/esi](http://www.energyandresources.vic.gov.au/esi)

Confidentiality

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.

Authorisation

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1. Note that the plural of premises is premises. The term treatment premises refers to multiple sites which are part of a group which will receive the treatment. [↑](#footnote-ref-1)