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| New & revised activities in the Victorian Energy Efficiency Target scheme |
| The Department of Environment, Land, Water and Planning’s response to the submissions on proposed new and revised activities |

In 2016 the Department of Environment, Land, Water and Planning (the Department) called for submissions on new and revised activities for the Victorian Energy Efficiency Target (VEET) scheme.

This call for submissions was the first since 2012/13. Twenty-three submissions were received for a broad range of potential new and revised activities.

An independent consultant was engaged to assist the Department to assess and consider seventeen of the submissions. They were evaluated for their suitability, based on energy saving potential over business as usual, behavioural factors, potential market penetration, energy consumption in different regions, and health and safety issues. This report is available on the Department’s website: <http://delwp.vic.gov.au/energy/legislation/energy-saver-incentive>

Six submissions were analysed internally by the Department where there was sufficient technical data available and specialist advice was not required.

Overall, it was noted that many of the submissions were incomplete or could not provide the information required to assess their suitability to develop a new deemed method. Stakeholders faced challenges and barriers to collecting the level of data required to properly assess a potential new activity for inclusion in the scheme. The Department will continue to consider options for an improved process for developing new and revised methods.

The Department’s response to each submission is outlined below.

# Technical consultant reviewed submissions

The Department engaged Pitt and Sherry to provide technical advice on seventeen of the submissions. The Department has reviewed this technical advice and our response to the report’s recommendations for each of the submissions is listed below.

## Low flow tap conversion

The activity proposed was the installation of internal flow restrictors in water taps, with the intention of saving energy associated with hot water heating. The Department supports the consultant’s recommendation and will not proceed with a deemed activity at this time. The level of energy savings per household would be unlikely to result in sufficient Victorian Energy Efficiency Certificates (VEECs) per premises to drive uptake.

## Reflective roof paint

The activity proposed was the application of reflective roof paint to a pre-existing roof surface to reduce thermal heat gain and save cooling energy. The Department supports the consultant’s recommendation that this proposal is not suitable to be implemented via deemed factors. Of particular note is the potential to increase energy consumption in cooler climate zones. This activity could be implemented under VEET using one of the project-based activities (PBAs) currently being developed by the Department.

## Thermostatic shower valve

The activity proposed was the installation of a thermostatic water shut-off valve between the shower arm and the shower head to prevent the waste of hot water and energy while the shower is reaching the correct temperature. The Department supports the consultant’s recommendation and will not proceed with a deemed activity at this time. Energy savings are highly dependent on user behaviour, and there is insufficient local data with which to develop a deemed method.

## LED lighting with extra functions

The activity proposed was LED down lights that incorporate additional devices (e.g. Bluetooth speakers) within the light housings that can manage the energy consumption of other appliances. The Department supports the consultant’s recommendation and will not proceed with a deemed activity at this time. There is a high level of variability and insufficient data to quantify non-lighting energy savings with sufficient confidence to create a new method for this activity.

## Power factor correction

The activity proposed was power factor correction which has multiple benefits including reducing energy transmission system losses and maximum demand. The Department supports the consultant’s recommendation that baseline uptake of this activity be monitored to assess the impact of tariff changes. Increasing the number of businesses with kVA charges may result in increased activity without a VEET incentive.

The Department will reconsider this activity once tariff changes have been in place for a period. In future this activity could be implemented as a deemed activity or by using one of the project based activities currently being developed by the Department.

## Voltage optimisation

The activity proposed was voltage optimisation to improve the efficiency of electrical equipment when the supply voltage is higher or lower than the equipment's design voltage. The Department supports the consultant’s recommendations that there is insufficient data to implement voltage optimisation via a deemed activity method. This activity however could be implemented using one of the PBA methods currently being developed by the Department.

## Solar PV to hot water diverter

The activity proposed was the installation of an electronic control device intended to divert electricity generated by a residential photovoltaic (PV) solar system to an electric resistance hot water heater. The Department supports the consultant’s recommendation and will not proceed with a deemed activity at this time. There is insufficient data to determine if the activity would result in additional greenhouse gas savings. Further, there may be safety and compliance issues that would need to be overcome before such an activity could be included in the scheme.

## Placebo air conditioner remote

The activity proposed was to replace remote controllers for reverse-cycle air conditioning (RCAC) with units that limit the user’s ability to set the temperature beyond a predefined thermal comfort band (e.g. 21-24°C). The Department supports the consultant’s recommendation, and will not proceed with a deemed activity at this time. There is insufficient data available to support the required estimate of the energy savings that may result from the activities.

## Passive occupancy sensor for air conditioners

The activity proposed was to retrofit an occupancy sensor controller to limit RCAC running times to when a space is occupied. The Department supports the consultant’s recommendation, and will not proceed with a deemed activity at this time. There is insufficient data available to support the required estimate of the energy savings that may result from the activities. This activity however could be implemented using one of the PBA methods currently being developed by the Department.

## Revise in home display abatement factors

The submission proposed an amendment to the abatement level for the existing VEET activity of installing an In Home Display (IHD), to increase the estimated savings from 6.6% to 9.0%. The Department supports the consultant’s recommendations that there is insufficient data available to support change. More recent local studies on the effect of IHDs would be needed.

## Home energy gateway device

The proposed activity was a sophisticated IHD with the implied capacity to communicate with household appliances. The Department supports the consultant’s recommendations that there is insufficient data available to support change. More recent local studies on the effect of the proposed activity would be needed to substantiate a change.

This proposed activity could potentially be undertaken at a later date when the Treatment and Control PBA method has been implemented. The Department will consider this activity in the development of this PBA method.

## Plug-in thermostat for portable electric heaters

The activity proposed involves installing a plug-in thermostat that switches portable electric heaters off when temperature reaches a defined threshold. The Department supports the consultant’s recommendation, and will not proceed with a deemed activity at this time. There is insufficient data on the usage of these devices and the usage of plug-in electric heaters to support the development of a deemed method. Furthermore, there are safety concerns.

## Smart hot water controller

The activity proposed is the installation of a retrofit heating controller and additional sensors to provide more efficient temperature control of domestic electric hot water cylinders to reduce associated energy consumption. The Department supports the consultant’s recommendation, and will not proceed with a deemed activity at this time. Whilst moderate energy savings are possible, a significant compliance burden due to the need to maintain stored hot water at safe temperatures would limit the uptake and the VEEC incentives would be likely to be insufficient to drive activity.

## Revise Schedule 29B – IT standby power controllers

The revised activity proponents requested that the deemed abatement factor be reviewed for advanced standby power controller products designed principally for use in commercial premises. The Department supports the consultant’s recommendations that there is insufficient data to support the development of a new deemed method for this activity. The Department also supports the consultant’s recommendations that this proposal could be implemented by using a future PBA to quantify savings.

## Gas engine driven reverse cycle air-conditioning

The activity proposed includes products that use a gas powered engine to drive the compressor in a commercial or large residential reverse cycle or heating only air-conditioning system instead of an electric motor. The Department supports the consultant’s recommendation, and will not proceed with a deemed activity at this time.

The Department supports the consultant’s view that this proposal could be implemented by using a PBA method.

# Department reviewed submissions

The Department considered six submissions internally. These were submissions where the Department did not require technical advice in order to make a decision.

## Fan upgrades

Two submissions related to fan upgrades. These activities could be implemented via a deemed activity or by using a PBA method.

Both submissions sought a project-based or non-deemed activity similar to those existing in the NSW Energy Savings Scheme and the Commonwealth Emissions Reduction Fund. Therefore, PBAs may be appropriate for incentivising such upgrades.

An alternative approach to implementing further fan upgrade activities in VEET would be to expand the current deemed Schedule 33, which currently includes refrigeration fans (fan/motor units) only. This activity could be expanded to include similar fan/motor units for ventilation fans, and impeller replacement for high efficiency fans. Accordingly, work is currently underway to expand Schedule 33 to include ventilation fans and the Department will be consulting on this later in 2017.

## Underfloor insulation

One submission related to amending the underfloor insulation activity to reduce the minimum R-value achieved from 2.5 to 1.5.

The Department consulted recently on amendments to the underfloor insulation activity, including reducing minimum underfloor insulation to achieve a minimum R-value of 1.5. The proposed amendments to underfloor insulation have been postponed because the underfloor insulation activity is currently unavailable pending new guidelines for installing both underfloor and ceiling insulation.

## Air conditioning ductwork

One submission related to air conditioning ductwork. However, limited information was provided by the proponent.

## Revised Schedule 19 – refrigerator and freezer destruction

Two submissions related to amending Schedule 19 which relates to the destruction of refrigerators and freezers. These proposals both suggested increasing the eligibility of refrigerators and freezers which can create certificates when destroyed beyond the current 1996 year of manufacture, to either 2005 or 2006.

The Department’s research indicates that:

* Minimum energy performance standards (MEPS) for fridges were first introduced in 1999 and then made more stringent in 2005.
* The current cut-off date of 1996 was chosen because fridges sold earlier were very inefficient compared to fridges currently on the market. After this date the efficiency of fridges started to increase to meet the MEPS introduced in 1999.
* Changing the eligibility date for Schedule 19 from 1996 to 2005 (or 2006) would require the deeming calculation to assume that fridge being removed from service was substantially more efficient than the average pre-1996 fridge. Consequently, the number of VEECs allowed would be significantly reduced. This would result in insufficient incentives to drive uptake of this activity.

Accordingly, revising Schedule 19 is not being considered at this time.

## Amend Schedule 32 – High efficiency refrigerated display cabinets

One submission related to amending the decommissioning requirements of Schedule 32 which relates to high efficiency refrigerated display cabinets. This matter was addressed in amendments to this Schedule which occurred in 2015.

# Next Steps

## Future processes for new and revised activities

The Department noted that many of the applications were incomplete or could not provide the data and information required to develop a new deemed method. The Department acknowledges the barriers to the introduction of new deemed activities scheme participants face, in particular the availability of sufficient data. The Department is actively considering options to improve the process to develop new and revised methods to better meet the needs of the Department and supports new activity proponents.

The Department will seek stakeholder feedback to inform this process.

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