Report to IPART

Review of Electrical Safety Issues for Lighting Technologies under the NSW Energy Savings Scheme

David Hemming & Associates

May 2012

CONTENTS

1. Executive Summary

In all three Australian schemes that have mandated energy efficiency targets, there have been no safety incidents reported. The scheme administrators of each of the schemes take safety issues very seriously and have in place requirements to ensure that only approved products are installed and that installers have undertaken appropriate training. This review report compares the approaches in each of the schemes and makes recommendations for additional actions that could be considered by IPART in its administration of the NSW Energy Savings Scheme.

A poor safety record can severely compromise an otherwise soundly designed and managed program. The Commonwealth's Home Insulation Program (HIP) is a prime example of a scheme where overall delivery of outcomes was almost entirely overshadowed by insufficient attention to the training and safety of insulation installers leading to four fatalities and numerous house fires that have been directly linked to insulation improperly installed under the HIP.

However, while the HIP scheme and its administration have been criticised for the numerous safety incidents, it is not clear what responsibility should attach to the administrator in the circumstances of installers being poorly trained or unaware of safe working practices. Similarly, it is currently unclear what IPART's responsibility is as a scheme administrator when it is not directly involved in any activities and when direct responsibility for safety resides in other agencies. Accordingly it is proposed that a legal opinion be sought on this matter.

In all of the three states that have legislated to implement mandatory energy efficiency schemes which place obligations on energy retailers, safety matters are dealt with by other legislation. The NSW Energy Savings Scheme legislation is perhaps the least prescriptive about the need for electrical safety standards of all the Australian schemes . Although the NSW legislation and subordinate instruments do not directly address safety issues, they provide the power for the Scheme Administrator to set appropriate standards. Accordingly, IPART in its Commercial Lighting Energy Savings Formula Guide provides specific instructions concerning electrical safety for emerging lighting technologies. IPART has also included safety levels in its interpretation of Clause 5.3 of the ESS Rule that a Recognised Energy Savings Activity should have " no negative effect in production or service levels", and this has been included in the (amended) conditions of accreditation for ACPs using emerging lighting technologies.

Under the Victorian Energy Efficiency Target (VEET) scheme legislation, the regulation specifies adherence to Victorian safety legislation as a requirement for accreditation. The VEET Guidelines further specify safety and training requirements, and an Explanatory Note to the Accreditation Guideline provides

further direction. The South Australian Residential Energy Efficiency Scheme (REES) is established under a regulation to the electricity legislation and its operation is governed by the REES Code. The REES Code specifies adherence to safety legislation. One reason for the greater focus on safety training under the VEET scheme may be the greater number of prescribed energy efficiency activities that involve a significant installation at residential premises (such as replacing inefficient water heaters with high efficiency water heating products; replacing high energy lamps with efficient lighting; replacement of inefficient space heating with ducted gas heater; decommissioning refrigerative air-conditioners and installing ducted evaporative coolers; pool pumps) than under the ESS.

The *Electricity (Consumer Safety) Act 2004* deals with electrical safety in NSW, and it is administered by NSW Fair Trading. The Act deals with matters including electrical articles, electrical installations and electrical wiring work. A key measure to ensuring that the ESS maintains its excellent safety record is the development of a good working relationship with NSW Fair Trading, beyond the current as hoc arrangements. Such an approach is supported by NSW Fair Trading.

While IPART has sought to make ACPs very aware of electrical safety issues through the inclusion of safety measures in conditions of accreditation, and through the issuance of guidelines and ESS notices, it is recommended that the following further measures be considered:

1. seek a legal opinion about IPART's legal responsibility for safety in its role as administrator and regulator of the ESS;

2. commission a safety review of the ESS to be undertaken by a specialist risk consultant. The terms of reference for such a review could be developed in consultation with Victorian Essential Services Commission which has undertaken a similar safety review of the VEET scheme;

3. impose an additional condition of accreditation that requires ACPs to maintain public liability insurance cover of at least $5million, and insurance cover for product replacement and rectification of works of at least $5 million. This could be applied only to ACPs operating under the Commercial Lighting Formula and Default Savings Method, or to all ACPs;

4. discuss with OEH and DITRIS the need to amend the ESS Rule to specifically include electrical safety requirements in the ESS Rule in the same way as it is currently included in the VEET Guidelines 2010 and the REES Code;

5. include in the scope of future audits of ACPs accredited under the Commercial Lighting Formula and emerging lighting technologies to

ensure the activities of ACPs comply with safety requirements, that records are available that demonstrate that the products that have been accepted by the Scheme Administrator meet relevant safety standards, and that records are available that demonstrate that any rewiring has been undertaken by a licensed electrician ;

6. include in the Annual Reports of those ACPs undertaking RESAs using the Commercial Lighting Energy Savings Formula and Default Savings Factor calculation methods a requirement to report on how they are meeting the revised Conditions of Accreditation regarding safety, and what safety training has been undertaken by persons performing lighting upgrades using the Commercial Lighting Energy Savings Formula [as required under the ESS Rule]. ACPs should also confirm in their Annual Reports that any RESAs involving modification of electrical wiring was undertaken by a licensed electrician;

7. update Fact Sheet 3 "Minimum Requirements for Installer Conduct (Default Savings Factors)" to specifically include addressing safety (electrical and other) in installation of replacement lamps or other retrofit activities;

8. maintain and strengthen the relationship with NSW Fair Trading such that dialogue at both a formal and informal level occurs, in particular when IPART or NSW Fair Trading becomes aware of electrical safety issues concerning products covered by an existing or potential accreditation under the ESS;

9. seek a briefing from NSW Fair Trading on the NSW electrical safety regime for relevant members of the ESS team, and use it as a starting point in developing a formal process for the Secretariat and the Tribunal to address such matters, should either organisation become aware of a safety issue. A model, similar to that in Victoria, based on a Memorandum of Understanding between IPART and NSW Fair Trading setting out roles, responsibilities and procedures may warrant consideration; and

10. develop a standard process (in the form of a flow chart) in consultation with NSW Fair Trading, that clearly sets out the steps that ESS staff should follow in the event that they become aware of unsafe products being installed or unsafe installation practices being undertaken by an ACP. Figure 1 below provides a draft flow chart for consideration.

Figure 1 Below sets out a plan of action should IPART become aware of an electrical safety issue through its administration of the ESS.

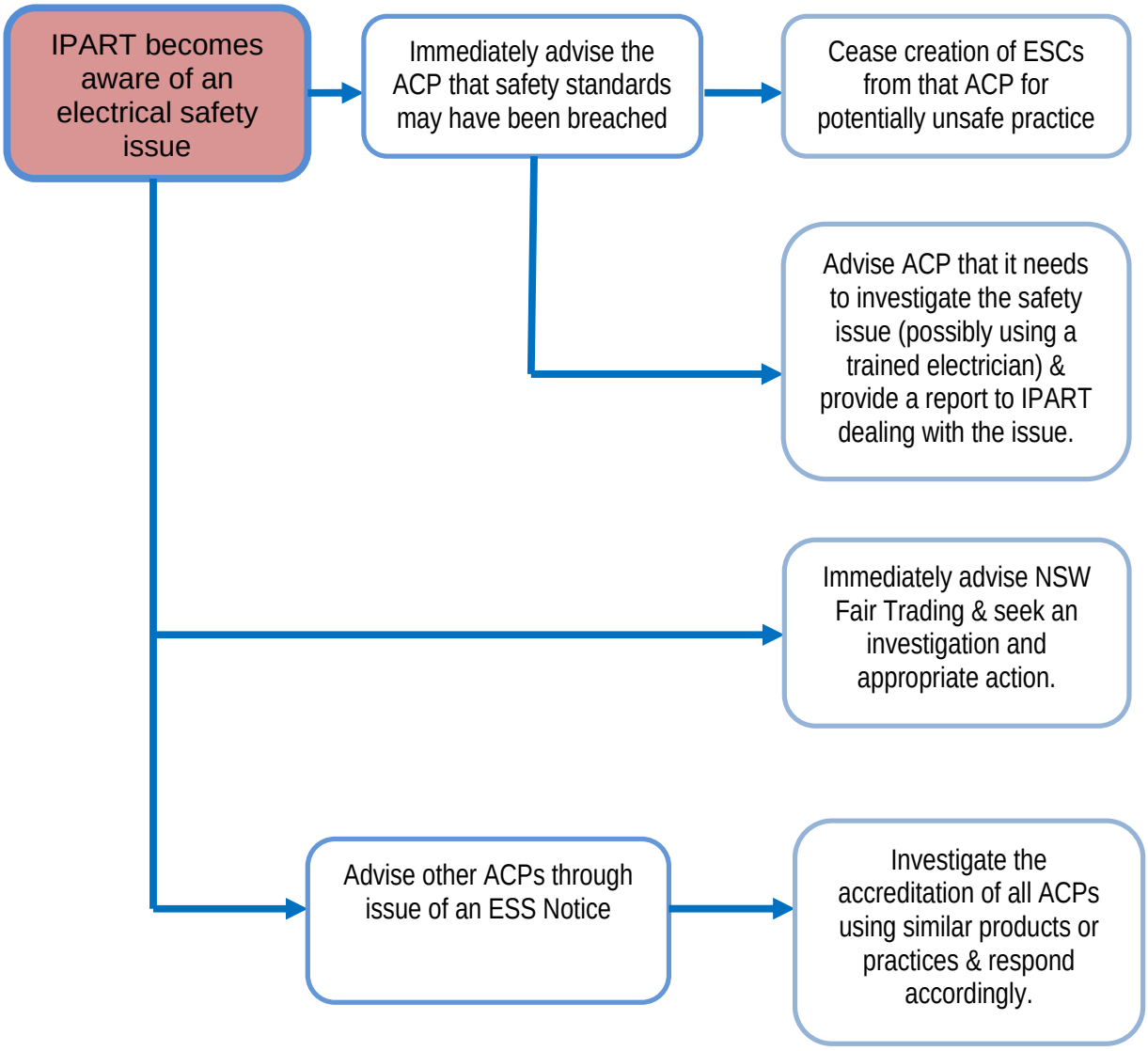

Figure 1. Steps IPART should take when a safety issue arises.

Should the IPART become aware of a safety issue it should contact:

- Donald van Keimpema
  Acting Principal Investigator
  Energy & Utilities Unit
  NSW Fair Trading
  9895 0732
  0427 603 204

- EnergyApprovals@services.nsw.gov.au

- Glenn Lamond Ph: 9895 0722

2. Introduction

The NSW Energy Savings Scheme (ESS) which commenced on 1 July 2009 is focused on rewarding activities that result in reduced electricity consumption and hence reduced greenhouse gas emissions. An important role of the Scheme Administrator and Regulator, the Independent Pricing and Regulatory Tribunal (IPART) is to ensure the integrity of the scheme such that certificates registered represent real energy savings.

There has been considerable recent interest in opportunities under the ESS for commercial lighting retrofits, with more than 30 parties accredited as Accredited Certificate Providers (ACPs). However, IPART has concerns that some practices and products installed under the ESS could potentially compromise consumer and installer safety, and the Secretariat has sought advice on such matters. IPART is seeking to clarify its role and responsibilities in regards to safety for ACPs, their employees and consumers participating in the ESS, and to ensure that it has in place an effective and efficient process for dealing with safety issues should they arise.

Scope of Work

The IPART ESS Secretariat has requested a report on electrical safety issues as they relate to the ESS, in particular with respect to emerging lighting technologies. The detailed scope of work is to:

- review and document the current requirements IPART has in place, including any advice it has provided regarding safety, especially in the context of emerging lighting technologies;
- identify whether there are other measures the Scheme Administrator should consider in terms of ensuring the activities of ACPs comply with safety requirements and/or the products that have been accepted by the Scheme Administrator meet relevant safety standards;
- document a process for the Scheme Administrator to respond to any allegations should they arise in terms of safety of products;
- consider whether any other measures should be taken, including the requirements on ACPs to have regard to safety levels and whether any changes to the ESS Rule might be required; and
- identify any learnings IPART can gain from the Commonwealth's administration of the Home Insulation Program.

3.

Current ESS Electrical Safety Requirements for Emerging lighting Technologies

The Act, the Regulation and the ESS Rule

The *Electricity Supply Act 1995* (ESA) makes no specific reference to electrical safety. However, it provides power under the *Electricity Supply (General) Regulation 2001* (the Regulation) and the ESS Rule for the Scheme Administrator to set conditions of accreditation for participation in the ESS [Section 135(1)]. Section 136(3) of the ESA provides that "the Scheme Administrator may refuse an application for accreditation as a certificate provider on such grounds as may be specified in the regulations". Section 137(2) of the ESA enables the Scheme Administrator to suspend or cancel the accreditation of an ACP on such grounds as may be specified in the regulations. Section 138 enables the Scheme Administrator to set conditions of accreditation "as may be imposed from time to time by the regulations" or "in accordance with the regulations".

The Regulation [Clause 78M(a)] requires that an application for accreditation as an ACP in respect of an activity "is to be accompanied by such information relating to the activity as the Scheme Administrator requires". Clause 78O gives grounds for the Scheme Administrator to refuse an application for accreditation. Clause 78V of the Regulation requires that the Scheme Administrator gives written notice to an ACP if it intends to impose a condition on the accreditation or if it intends to revoke or vary a condition imposed on the accreditation by the Scheme Administrator.

The ESS Rule, at clause 5.3 defines a Recognised Energy Savings Activity (RESA) as one "where those activities have no negative effect in production or service levels". Clause 5.4 defines Recognised Energy Savings Activities that are not included in the ESS. There is no specific mention of activities that do not meet safety standards. Clause 9.3 requires that if the RESA involves the replacement of 50W ELV halogen lamps, and if the activity involves the modification or replacement of electrical wiring, "the activity is performed by an electrician" ["Electrician" is not a defined term in the ESS Rule.]. Clause 9.4 requires that use of the Commercial Lighting Energy Savings Formula be limited to lighting upgrades performed by "appropriately trained persons".

Use of the Commercial Lighting Formula

IPART's Commercial Lighting Energy Savings Formula Guide (the CLESF Guide) provides specific instructions concerning electrical safety (section 2.8.1.1) stating that an applicant for accreditation must provide evidence to show that the proposed lighting product meets the electrical safety requirements of the *Electricity (Consumer Safety) Act 2004* if the product is to be connected to mains power. The Act is regulated by NSW Fair Trading.

The CLESF Guide further prescribes that this evidence of electrical safety must be:

- An Australian Certificate of Approval if it is a "Declared Article" such as T5 adaptor kits and power supplies. The Certificate may be issued by NSW Fair Trading, or an equivalent body in another state, or by an independent certifier; or
- A Certificate of Suitability issued by NSW Fair Trading if it is a "Non-Declared Article" such as voltage reduction units, LED tubes and induction lamps; or
- Documentation showing the Regulatory Compliance Mark.

The CLESF Guide draws further attention to safety concerns specific to LED Tubes (section 2.8.2.2) and the use of VRU and T5 adaptors (section 2.8.2.3). Appendix D further clarifies the requirements.

ESS Notices

In 2012, two ESS notices relating to safety issues have been posted. The first on 12 March 2012 draws to the attention of ACPs under the Commercial Lighting Formula, the need to notify IPART before creating ESCs using equipment different from that for which the ACP is accredited. The Notice adds that IPART may require manufacturer's specifications, and in the case of emerging lighting technology, other additional information including electrical safety and referencing the CLESF Guide. The second Notice, also issued on 12 March 2012 recommends that "all parties considering the use of T5 adaptor kits or other types of lighting upgrades that modify existing luminaires, familiarise themselves with the recommendations of the document *'Safety of T8 Lamp Replacement and Modified Luminaires'* published by the Electrical Regulatory Authorities Council."

Minimum Requirements for Installer Conduct

In February 2011, IPART issued "Fact Sheet 3: Minimum Requirements for Installer Conduct (Default Savings Factors)" to provide guidance for ACPs using DSFs when applying the Deemed Energy Savings Method to retrofit activities undertaken by unskilled sub-contractors. It focuses on the relationship between the ACP and their representatives; training of ACP representatives; and customer service. There is no specific mention of safety in Fact Sheet 3, although it notes that training must include "the proper installation of products" and specifies the arrangements that must be met in training of ACP representatives. IPART could consider updating this Fact Sheet to provide specific requirements for safety instruction when installing replacement lamps. For example, it could draw attention to the requirement in the ESS Rule (clause 9.3) that any activity that involves modification or replacement of electrical wiring must be undertaken by a licensed electrician.

Accreditation Notices

After a process of consultation in early 2012, the ESS Committee decided to explicitly reference safety in the Notice of Accreditation, by adding the words "…*where that activity has, to the satisfaction of the Scheme Administrator, no negative effect on production or service levels, including safety levels*" to the definition of a RESA involving modification and/or replacement of end user equipment for which the ACP is accredited to create ESCs using the Commercial Lighting Energy Savings Formula and Default Savings Factor calculation methods.

It has been noted that the Scheme Administrator does not approve products. Instead, the Scheme Administrator's role in approving equipment should be understood as referring to its role, set out in the Rule, that it be satisfied that End-User Equipment meets the requirements of the Rule. If the Scheme Administrator finds that an activity is having a negative effect on production or service levels, including safety levels, it has the power under the Rule to prevent creation of ESCs from that activity until the matter has been rectified.

Reporting requirements

As the ESS website notes, ACPs must report to IPART as Scheme Administrator each year. The report must detail:

- the number of energy savings certificates created
- any changes to the methodology or systems supporting the creation of energy savings certificates
- forecasts of future creation of energy savings certificates.

In addition to the annual report, extra reporting requirements may be imposed on ACPs. These could include for those undertaking RESAs using the Commercial Lighting Energy Savings Formula and Default Savings Factor calculation methods reporting on how they are meeting the revised Conditions of Accreditation regarding safety as above, and what training has been undertaken by persons performing lighting upgrades using the CLESF [as required under the ESS Rule]. It could also seek confirmation that any RESAs involving modification of electrical wiring was undertaken by a licensed electrician.

4. Legislative provisions for electrical safety in NSW

The *Electricity (Consumer Safety) Act 2004* deals with electrical safety in NSW, and it is administered by NSW Fair Trading, and the Director-General has power under the Act. The Act deals with electrical articles, electrical installation and electrical wiring work. The Director-General may suspend or cancel a model

approval if electrical articles of the model are unsafe by reason of design or construction [S13(2)(b)], and articles cannot be sold without a model approval. Section 21 prohibits the sale of unsafe electrical articles, and empowers the Director-General to issue a notice prohibiting the sale of an unsafe electrical article. The Director-General can also require a seller of electrical articles to carry out testing of an article and provide evidence that the article is safe to use. The Act [S30] also deals with electrical installations, empowering an authorised officer to inspect any installation. All electrical installation work must be carried out in accordance with standards or requirements prescribed by the regulation [S31].

NSW Fair Trading electrical safety processes

NSW Fair Trading can be alerted to a potential electrical safety issue through complaints lodged by consumers, through information provided by other State safety regulators, through referral from the Australian Competition and Consumer Commission (ACCC), or through information provided from distribution Network service providers. The appropriate section that deals with electrical safety issues is the Energy & Utilities Unit.

Should the Scheme Administrator become aware of a safety issue it should contact NSW Fair Trading as below:

- Donald van Keimpema
  Acting Principal Investigator
  Energy & Utilities Unit
  NSW Fair Trading

  9895 0732
  0427 603 204

- EnergyApprovals@services.nsw.gov.au

- Glenn Lamond Ph: 9895 0722

Once a safety issue is raised with Fair Trading or a complaint is received, an investigation into the matter is conducted based on the *Electricity (Consumer Safety) Act 2004* and any prior history of the party of concern. The investigation will consider any non-compliance with the relevant Australian and international standard, and the level of risk presented by any potentially unsafe article.

ERAC

Across Australia, electrical safety and technical regulatory functions are largely the responsibility of State and Territory Governments. The Electrical Regulatory Authorities Council (ERAC) is made up of representatives of the regulatory

authorities responsible for electrical safety, supply and energy efficiency in New Zealand and the Australian States, Territories and Commonwealth. ERAC is the body which is responsible for the harmonisation of Australian and New Zealand electrical regulatory functions.

ERAC agreed to undertake a review of the Electrical Equipment Safety System (EESS) in Australia to maintain community, industry, and other stakeholders' confidence in the integrity of the system. ERAC presented the review report in late 2007, and recommended that the new EESS be underpinned by nationally consistent performance-based legislation in each jurisdiction and comprehensive scheme rules. Preventing unsafe electrical equipment from entering the market is the primary goal of the EESS. However, if unsafe items do reach the market – it is important that they are readily detected, reported and removed. It is understood that the EESS has not yet been adopted. It5 is my understanding that recommendations have yet to be adopted.

From time to time, ERAC issues information bulletins. In November 2011 it released an information bulletin on "Safety of T8 Lamp Replacement Tubes and Modified Luminaires". The bulletin addresses the safety concerns of ERAC and advises of the current requirements for new luminaires, retrofit luminaires, LED Tubes and for T8 to T5 fluorescent lamp adaptor assemblies.

Lighting Council Australia

Lighting Council Australia commenced operation in late 2007 as the peak industry association for Australia's lighting industry. It comprises some 80 members representing manufacturers, suppliers and other participants in the lighting industry in Australia . Its goal is to encourage the use of environmentally appropriate, energy efficient, quality lighting systems. One of its objectives is to promote the use of electrically safe lighting that complies with relevant Australian and international standards.

As part of its Code of Conduct, Lighting Council Australia members commit to supplying product that satisfies requirements for safety as may be defined in applicable standards from time to time.

5. Safety Provisions under the Victorian Energy Efficiency Target (VEET) Scheme

The VEET scheme commenced on 1 January 2009. The instruments establishing VEET and prescribing its operations are:

- *Victorian Energy Efficiency Act 2007;*
- *Victorian Energy Efficiency Target Regulation 2008;*
- *Victorian Energy Efficiency Target Guideline 2010;* and
- several Explanatory Notes.

The Victorian Essential Services Commission (VESC) is the VEET scheme administrator and regulator.

In terms of mandatory safety training, from July 2011, most activities that require the installation of a product or appliance can only be undertaken by an installer with appropriate training. For activities such as replacing water or space heaters, installers are generally tradespersons covered by existing industry training standards. But even if installers are only replacing light globes and shower roses (or other selected activities), they still need to complete certain mandatory training courses, or receive recognition of prior learning from a Registered Training Organisation (RTO). Details of which training courses are mandated for which activities can be found in the Explanatory Note - Guide to VEET Accreditation. In addition, Explanatory Note - Compliance Requirements for Accredited Persons by Prescribed Activity sets out in detail for each prescribed activity the product and installer requirements including qualifications and/or safety and other training required to be undertaken by installers.

In addition, there are insurance requirements for accredited parties. Accredited businesses (or their subcontractors) must maintain public liability insurance cover of at least $5m, and insurance cover for product replacement and rectification of works of at least $5 million. They must also provide proof of this insurance to the ESC within seven days of each renewal, reissue or change of the policy. This requirement is imposed an all accreditations under the VEET scheme. While there was some initial concerns by businesses about the additional costs, it has been accepted as a requirement for participation in the VEET scheme. The imposition of insurance requirements has the effect of raising the awareness of safety and other consumer protection issues and improving the standard of installations. To date there have been no claims on the insurance policies of any accredited party.

As indicated in Appendix A which details the instruments used under the VEET scheme to prescribe safety and training requirements, the various instruments governing the operation of VEET are very prescriptive about adherence to safety provisions in other Acts, Regulations and Codes of Practice, and to requiring

appropriate training for persons undertaking prescribed energy efficiency activities.

To date, the VESC has experienced no adverse safety issues with the VEET scheme. There are many checks and balances in the Victorian system. Equipment needs to have a safety certificate (eg 240V lamps).

In 2010, VESC commissioned a safety review of the VEET scheme. This made some recommendations about "regulated" activities (where installations were undertaken by licensed tradesmen such as heating systems), to check for example that training programs were kept up to date. For "unregulated" activities (lighting, ceiling insulation, installation of shower roses, etc the review identified a higher risk. With the expansion of VEET activities and the extension of VEET to non-residential premises, the VESC is commissioning a further safety review of VEET in 2012. A summary of the 2010 VEET Safety Review is included in Appendix A.

Energy Safe Victoria (ESV) is the independent technical regulator responsible for electricity, gas and pipeline safety in Victoria. Its role includes ensuring every gas and electrical appliance meets safety and energy efficiency standards before it is sold. It is the Victorian counterpart of the safety section of NSW Fair Trading. ESCV has a memorandum of understanding with ESV which outlines the roles of the two agencies in the event of a safety issue arising.

There is a variety of ways by which VESC would be made aware of a potential electrical safety issue, but it does not have a formal process whereby it is informed if a safety issue arises. Most likely a dissatisfied customer would contact ESCV about an installation or appliance. Also, an accredited party may inform on another accredited party if it has concerns that the competitor's practices may be compromising safety. Finally, ESV may advise ESCV about a safety issue of which it has become aware. In any such event, ESCV would require the accredited party to test the suspect installation, getting a licensed electrician to look at the problem if necessary, and report to ESCV.

6. Safety Provisions under the South Australian Residential Energy Efficiency Scheme (REES)

On 21 August 2008, Regulations were made under the *Electricity Act 1996* and *Gas Act 1997* giving effect to the Residential Energy Efficiency Scheme (REES) which commenced from 1 January 2009. The Regulations establish the Essential Services Commission of SA (ESCOSA) as the administrator of the REES:

- Part 2AA - Electricity (General) Variation Regulations 2008
- Part 2AA - Gas Regulations 1997

ESCOSA carries out its functions as scheme administrator of the REES in accordance with a Residential Energy Efficiency Scheme Code (REES Code), made by ESCOSA under section 28 of the *Essential Services Commission Act 2002* (ESC Act). The REES Code establishes requirements on energy retailers in relation to REES obligations imposed under energy retail licences

Appendix B provides an extract from the REES Code relating to mandatory safety requirements such that all persons conducting energy audits or energy efficiency activities have undertaken all necessary training (including occupational health and safety training) and that the person is a fit and proper person to conduct energy audits or energy efficiency activities in customers' premises. Obligated retailers under the REES must report in their annual compliance plans on the training undertaken by installers for each of the REES activities

From 1 January 2012, the REES Code imposed mandatory safety requirements on retailers in respect of the provision of REES energy efficiency activities. For example, ceiling insulation can only be installed by a licensed builder .In addition, the Minister recently updated the training requirements for energy audits.

In REES Bulletin No. 11 "Mandatory Training Requirements" released in February 2012, it is noted that "the key concern of the Commission in implementing mandatory training requirements is in ensuring priority is given to REES activities being undertaken safely and that householders can be confident that people installing devices in their homes have received a basic level of training, particularly in areas such as Occupational Health, Safety and Welfare."

7. The Commonwealth Home Insulation Program

The Commonwealth Home Insulation Program (HIP) was announced on 3 February 2009, formally commenced on 1 July 2009 and was due to run until December 2011 or until funds ran out. In fact it was terminated on 19 February 2010 after 4 fatalities to installers and numerous house fires related to the program. The box below covers the program and its aftermath in more detail, with a focus on safety issues. Reports of widespread fraud and other anomalies have also been reported, but are not discussed in any detail here.

The circumstances of the HIP seems to have few similarities to the ESS, but there may be some lessons to be learned. Overall, as Allan Hawke's review report[1] notes, the HIP was largely meeting its two objectives of providing employment opportunities and improving the insulation levels of Australia's

[11] "Review of the Administration of the Home Insulation Program, Allan Hawke, 6 April 2010 (available DCCEE website)

building stock. However, the program was largely discredited in the public's mind because of unresolved safety issues, and charges of fraudulent activities by some businesses. Also, despite the Commonwealth issuing safety and health warnings through advices and other means in response to issues as they arose, these were in some instances ignored and problems continued. In addition, the Commonwealth does not have legislative responsibility for safety matters, and different state and territory jurisdictions have different approaches and systems for dealing with safety, and duty of care requirements.

One concluding comment from Hawke may be relevant to the ESS:

"A stronger management structure, earlier implementation of the audit and compliance program, and better targeting of compliance effort early in the program could have mitigated the risks to more acceptable levels, but never to zero".[2]

While ceiling insulation is undoubtedly one of the most cost-effective means of improving the energy efficiency of the housing stock, and thereby reducing greenhouse gas emissions, Commonwealth programs in this area have not continued. In addition, the VEET and ESS do not effectively include ceiling insulation amongst their prescribed eligible activities, partly as a result of the problems encountered by the Commonwealth with the HIP.

The Home Insulation Program (HIP)

The administration of the HIP was the subject of a review by Allan Hawke. The HIP was a component of the Commonwealth Government's "Nation Building and Jobs Plan", in response to the global financial crisis. The HIP was to be rolled out rapidly to meet two broad objectives:

- to generate economic stimulus and support jobs and small business; and

- to improve the energy efficiency of homes.

In the economic circumstances of the time, the program was designed to provide easy access to jobs for lower skilled employees.

The HIP was an administrative not legislative program, and the program requirements were contained in guidelines and in the terms of conditions of registration, including competency requirements for installer registration. Over the course of the HIP, five sets of program guidelines and 25 installer advices were issued.

In the initial phase to establish the program, installation guidelines were released and consultations with industry state and territory governments held. The training and capacity of installers to deliver the program were raised as concerns,

[2] "Review of the Administration of the Home Insulation Program, Allan Hawke, 6 April 2010, page xiv

and the need for product standards and installer training was agreed. A new national training package for insulation installers was developed. A Pocket Book was released in August 2009 summarising key information used in industry training including safety information and warnings. It also detailed the duty of care responsibilities of both employees and employers, including highlighting the need "to turn off or isolate power to the main switchboard before starting any work".

PricewaterhouseCoopers commenced as the audit and compliance service provider on 29 September 2009 and commenced a roof inspection regime through a subcontractor which aimed to undertake 11,000 random roof inspections by the end of December 2009. In September 2009, NSW Fire Brigades and Office of Fair Trading reported a number of fires involving downlights and insulation, and issued a warning to householders.

In October 2009, the first fatality under the HIP occurred when an installer of foil insulation was electrocuted. Despite further advice notices to registered installers, and banning of metal fasteners for foil insulation two further electrical fatalities occurred and another due to heat exposure.

Despite the responsiveness of the Department in banning foil insulation from the HIP, and requiring electrical safety inspections of every home installed with foil insulation under the HIP, the program was discontinued on 19 February 2010.

Allan Hawke made the following comments:

> - any objective assessment of the HIP will conclude that despite the safety, quality and compliance concerns, there was solid achievement against the program objectives … over one million homes had been insulated … with the prospect of significant savings on energy bills in years to come.
> - At its peak the program had registered over 10,000 installers employing thousands of largely low-skilled workers.

Hawke highlighted a number of key elements which led to the unintended consequences of the programs:

> - rapid roll out, wide access to the program for both householders and entrants to the installation industry;
> - the need for stronger leadership and governance balanced to the level of risk;
> - the quality of program design, planning and management;
> - the conduct of risk, audit and compliance activities could have been better targeted and implemented earlier in the program; and
> - the lack of resources (both individuals with appropriate skills and fit-for-purpose business systems)

The Department of Climate Change and Energy Efficiency released a formal response to the Hawke Report.[3]. The Commonwealth also commissioned studies by CSIRO[4], Booz & Company[5] on the Home Insulation Safety Program put in place to deal with the safety issues arising from the HIP.

8. Options for consideration

IPART's roles and responsibilities, and its duty of care as the administrator of the ESS are currently not clear. It does not operate as an employer of persons installing energy efficient equipment, it does not contract for energy efficiency services, and its staff do not conduct any of the activities themselves, or handle any of the energy efficient products. As discussed above, NSW Fair Trading is the agency directly responsible for ensuring safety of consumers and electrical installations. However, providing robust advice on this matter involves complex legal issues, with possible precedents to be examined such as the HIP. Accordingly it is beyond the scope of this report, and it is recommended that IPART consider seeking legal opinion to address this issue.

In the absence of directions in the ESS legislative instruments or the ESS Rule prescribing how ACPs must ensure the safe installation of electrically safe products, IPART has issued guidelines, notices and used powers to set conditions of accreditation to establish a workable approach to address safety issues. It has:

- included specific safety requirements for parties seeking accreditation for activities involving emerging lighting technologies;
- brought safety to the attention of ACPs using emerging lighting technologies through the issue of two ESS Notices in March 2012;
- further raised awareness of these issues for ACPs accredited to create ESCs using the Commercial Lighting Energy Savings Formula and Default Savings Factor calculation methods by consulting on, and then amending their Notices of Accreditation to explicitly reference safety, by adding the words "…*where that activity has, to the satisfaction of the Scheme Administrator, no negative effect on production or service levels, including safety levels*" to the definition of a RESA involving modification and/or replacement of end user equipment for which the ACP is accredited to create ESCs;
- issued a Minimum Requirements for Installer Conduct Fact Sheet; and

[3] Department of Climate Change and Energy Efficiency's Response to the Hawke Report on the Home Insulation Program and the Faulkner Inquiry into the Green Loans Program, DCCEE website.
[4] "CSIRO Risk Profile Analysis - Guidance for the Home Insulation Safety Program", R Jarrett, X G Lin, M Westcott (March 2011)
[5] Review of "The Strategy for Successfully Completing the Insulation Safety Plan" undertaken for the DCCEE, Booz & Company (March 2011)

- where, through the process of consultation on these amendments to Notices of Accreditation, a claim was made that some practices and products that are being installed under existing ESS accreditations may be unsafe, directly bringing the claims to the attention of NSW Fair Trading, the NSW agency responsible for electrical product and installation safety.

However, as has been seen from the Commonwealth Government's experience with its Home Insulation Program, even specific instructions to installers regarding their duty of care to employees failed to stop further fatalities from occurring. The flaws in design and implementation of the HIP, and the lack of sufficient suitable resources, and the ability of "rogue operators" to prosper were highlighted as the program was rolled out rapidly to meet government objectives. While these elements appear not to pertain to the ESS or other mandatory state-based schemes, some lessons from the HIP may be usefully adopted by the Scheme Administrator.

These lessons include:

- the need for strong senior management support for addressing safety issues;
- early implementation of the audit and compliance program; and
- better targeting of compliance effort.

Safety review of the ESS

The VESC commissioned a safety review of the VEET scheme in 2010 (not publicly available but made available to IPART through its MOU with the VESC) and is currently preparing for it to be updated given the broader scope of VEET eligible activities and extension to non-residential premises. It would seem to be timely for the ESS to be subjected to a similar review to be undertaken by a specialist risk consultant. The terms of reference for such a review could be similar to those of the VEET safety review and possibly developed in consultation with the VESC. Such a safety review would have the benefit of indicating that safety issues are taken seriously by IPART and other NSW agencies; would form an important part of a risk mitigation strategy for the ESS; and, if it involved a level of consultation with stakeholders, would raise the awareness of safety issues with ACPs and consumers. Such a review should also consider safety issues more broadly than electrical safety and include potential occupational health and safety risks for installers and consumers participating in the ESS. Consideration should also be given to including additional activities being considered for inclusion in the ESS.

Audit requirements

Still within the existing ESS framework, and with the recent changes to conditions of accreditation for ACPs using emerging lighting technologies, IPART should

ensure that all future scopes of work for audits of such ACPs specifically include testing and reporting on whether ACPs are meeting the condition of accreditation that the RESAs are having no negative effect on service and production levels, including safety levels. The audit would not need to be undertaken by a person with electrical training, but the auditor should ensure that records are available that demonstrate that all products meet approved safety standards, that appropriate training has been undertaken by all installers and that a licensed electrician has undertaken any rewiring involved in carrying out the RESA. This would ensure the activities of ACPs comply with safety requirements and that the products that have been accepted by the Scheme Administrator meet relevant safety standards. Such an approach would also demonstrate IPART's proactive approach to safety issues, further raise awareness of ACPs of the need to maintain high standards of product and installation safety and possibly provide an early warning of potential problems that may arise.

Insurance requirements

As mentioned above, the VEET scheme requires that accredited businesses (or their subcontractors) must maintain public liability insurance cover of at least $5m, and insurance cover for product replacement and rectification of works of at least $5 million. The experience to date from the VEET scheme has been that there have been no claims against these insurance policies. However, such provisions mean that accredited parties under the VEET scheme must meet this requirement before they are able to seek accreditation, and accordingly must meet standards imposed by insurance companies in terms of due diligence and having robust safety systems in place.

There are currently provisions in the ESA for the Scheme Administrator to impose similar conditions on the accreditation of an ACP operating in the ESS. Section 138(2)(d) gives one example of a type of condition of accreditation that may be imposed on an ACP as "a condition that requires the person to take out and maintain a policy of insurance in connection with the person's functions as an accredited certificate provider'. Such a condition could be imposed at the time of accreditation or at a later time while the accreditation remains in force [Section 138(1)(b)], by notice in writing.

The merits of imposing an insurance requirement akin to that operating under VEET are that it would raise the standard of systems put in place by ACPs to address safety issues and raising of awareness of safety in the operations of all ACPs. Many ACPs operate under both the VEET and ESS schemes and this requirement would be familiar to those that do.

For equity, such a condition of accreditation would need to be applied to existing and future ACPs operating either under a particular part of the ESS Rule or across the board, following a process of consultation. In the VEET scheme insurance provisions apply to all Accredited Persons.

ESS Rule change

As discussed above, while the ESS assumes that safety will be addressed as a matter of course (through other legislation), the VEET scheme takes a much more prescriptive approach to safety, with the Regulation identifying the complementary Acts that must be complied with to meet VEET safety standards.

In terms of the value of the VEET approach, it most likely adds costs to ACPs who are required to develop plans, undertake training and report on actions taken and training undertaken. However, it gives safety a higher profile and may avoid charges in the event of an incident, that the VEET scheme administration is not serious about safety.

In NSW, it may be feasible to specifically include electrical safety requirements in the ESS Rule in the same way as it is currently included in the VEET Guidelines 2010 and the REES Code. This would signal an increased attention to safety issues under the ESS, would clarify that electrical safety is a core responsibility of NSW Fair Trading, and at this time would not be seen as a reaction to any particular incident. It would also strengthen the Scheme Administrator's position on safety, in that it would not need to extrapolate from the exclusion of activities that have " *no negative effect on production or service levels".* A Rule change would also enable an anomaly in the current Rule to be removed whereby the Scheme Administrator cannot withdraw approval from an ACP where the accreditation involves the use of a product that the Scheme Administrator subsequently finds does not comply with safety standards. Finally, a Rule change would have the effect of raising the awareness of existing and potential ACPs to the importance of adhering to the electrical safety requirements of the NSW *Electricity (Consumer Safety) Act 2004*.

Relationship with NSW Fair Trading

Given that electrical safety issues are the responsibility of NSW Fair Trading, it will be important that IPART continues to engage in dialogue with that department on safety issues, particularly when issues are raised in the course of consultation processes or ACP audits. This dialogue should occur at both a formal and informal level. This recommendation is developed further in the next section.

9. Risk Assessment

At this time, there have been no serious incidents related to electrical safety reported from ESS, VEET or REES.

IPART has in place a robust system for avoiding electrical safety incidents under the ESS through its guidance documents for potential ACPs in commercial lighting which are stressed at Application Workshops; specific mention of the need for ACPs to address electrical safety in their Conditions of Accreditation; and specific inclusion in scopes of work for audits of ACPs in commercial lighting of an assessment of whether safety levels of products and installation are being met by the ACP. However, neither the ESS Secretariat nor members of its audit panel would be expected to have expertise in identifying safety issues and must rely on their assessment of whether activities undertaken under the ESS adhere to the safety standards administered by NSW Fair Trading.

It may be appropriate for the ESS Secretariat to seek a briefing by NSW Fair Trading of relevant staff on issues of electrical safety as it may relate to the ESS. This would have the effect of raising the awareness of the team to these issues and improve their knowledge of the NSW electrical safety regime.

If through these processes or through other means, should IPART become aware of a safety issue, it needs to be proactive and timely in its response. The following steps could form a starting point in the development, in consultation with NSW Fair Trading, of a standard process for dealing with an electrical safety issue that arises under the ESS:

- Immediately advise an offending ACP of IPART's concern that safety standards may be being breached in contravention of the ACP's conditions of accreditation, and that ESCs cannot be created from measures or products that do not meet safety standards;

- immediately advise NSW Fair Trading (both informally and formally) of its concerns and seek an investigation by NSW Fair Trading if appropriate;

- Advise other ACPs, through issue of an ESS Notice dealing with the details of the matter raised; and

- Investigate the accreditations of all other ACPs using similar RESAs which may potentially also be a safety risk, and respond accordingly.

A formal expression of the relationship between IPART and NSW Fair Trading could take the form of a Memorandum of Understanding as is in place in Victoria for the VEET scheme. In whatever form such an agreement is structured, it should express the responsibilities and roles of each organisation, and should

require that each party advise the other in the event that it becomes aware of an electrical safety issue in a timely manner. NSW Fair Trading supports the development of a formal process between the two agencies to address electrical safety issues.

10. Conclusions and Recommendations

Fortunately, there have been no safety incidents reported from any of the mandatory state-based energy efficiency schemes. This may have been because the prescribed activities have largely been delivered through well-understood installations procedures of existing energy efficient products. In addition, there has not been the same imperative for speed of implementation as was the case for the HIP. However, in the ESS in particular, installing emerging lighting technologies in commercial premises is being seen as a major opportunity to drive energy savings and achieve positive cash flows. Many of these products are not "declared electrical articles" under the *Electricity (Consumer Safety) Act 2004* and their safety rating needs to be dealt with separately by NSW Fair Trading.

Experience from the Commonwealth's Home Insulation Program is that safety issues are at least as important as maintenance of scheme integrity in the judgment of the public, and should be accorded at least comparable attention. It would be beneficial at this time to draw attention to the need to meet strict safety standards of products and installation.

While IPART has pursued electrical safety issues through conditions of accreditation, issuance of guidelines and ESS notices, it is recommended that the following further measures be considered:

1. seek a legal opinion about IPART's legal responsibility for safety in its role as administrator and regulator of the ESS;

2. commission a safety review of the ESS to be undertaken by a specialist risk consultant. The terms of reference for such a review could be developed in consultation with Victorian Essential Services Commission which has undertaken a similar safety review of the VEET scheme;

3. impose an additional condition of accreditation that requires ACPs to maintain public liability insurance cover of at least $5million, and insurance cover for product replacement and rectification of works of at least $5 million. This could be applied only to ACPs operating under the Commercial Lighting Formula and Default Savings Method or to all ACPs;

4. include safety audits, in the scope of future audits of ACPs accredited under the Commercial Lighting Formula and emerging lighting technologies to ensure the activities of ACPs comply with safety

requirements, that records are available that demonstrate that the products that have been accepted by the Scheme Administrator meet relevant safety standards, and that records are available that demonstrate that any rewiring has been undertaken by a licensed electrician ;

5. include in the Annual Reports of those ACPs undertaking RESAs using the Commercial Lighting Energy Savings Formula and Default Savings Factor calculation methods a requirement to report on how they are meeting the revised Conditions of Accreditation regarding safety, and what safety training has been undertaken by persons performing lighting upgrades using the Commercial Lighting Energy Savings Formula [as required under the ESS Rule]. ACPs should also confirm in their Annual Reports that any RESAs involving modification of electrical wiring was undertaken by a licensed electrician;

6. update Fact Sheet 3 "Minimum Requirements for Installer Conduct (Default Savings Factors)" to specifically include addressing safety (electrical and other) in installation of replacement lamps or other retrofit activities;

7. maintain and strengthen the relationship with NSW Fair Trading such that dialogue at both a formal and informal level occurs, in particular when IPART becomes aware of electrical safety issues concerning products covered by an existing or potential accreditation under the ESS;

8. discuss with OEH and DITRIS the need to amend the ESS Rule to specifically include electrical safety requirements in the ESS Rule in the same way as it is currently included in the VEET Guidelines 2010 and the REES Code;

9. seek a briefing from NSW Fair Trading on the NSW electrical safety regime for relevant members of the ESS team, and use it as a starting point in developing a formal process for the Secretariat and the Tribunal to address such matters, should it become aware of a safety issue. A model, similar to that in Victoria, based on a Memorandum of Understanding between IPART and NSW Fair Trading setting out roles, responsibilities and procedures may warrant consideration; and.

10. develop a standard process (in the form of a flow chart) in consultation with NSW Fair Trading, that clearly sets out the steps that ESS staff should follow in the event that they become aware of unsafe products being installed or unsafe installation practices being undertaken by an ACP. Figure 1 (page 6) provides a draft flow chart for consideration.

11. Appendix A: VEET Scheme Legislative Provisions for Safety

Extract from Victorian *Energy Efficiency Target Act 2007*, Part 3 - Energy Efficiency Certificates

17 When can a certificate be created?

(4) Regulations made under section 75 may prescribe conditions or circumstances under which a certificate cannot be created.

75 Regulations

(1) The Governor in Council may make regulations for or with respect to—

(e) prescribing conditions or circumstances under which a certificate cannot be created;

Extract from Victorian *Energy Efficiency Target Regulations 2008*, Part 2 - Prescribed Activities

10 Conditions and circumstances under which a certificate cannot be created

(1) For the purposes of section 17(4) of the Act, the following are conditions and circumstances in which a certificate cannot be created in relation to a prescribed activity—

(c) if the accredited person knows, or ought to know, that the prescribed activity was not undertaken in accordance with the provisions of the **Electricity Safety Act 1998**, the **Gas Safety Act 1997**, the **Occupational Health and Safety Act 2004** or the **Building Act 1993** or regulations under any of those Acts.

Extract from the Victorian Energy Efficiency Target Guidelines 2010

5.3 Manner of undertaking certain prescribed activities

In addition to the requirements, standards and specifications set out in the regulations, prescribed activities must be undertaken in accordance with all laws, Regulations and codes of practice applicable to that activity. By way of example, and without limitation, these may include:

- **Occupational Health and Safety Act 2004;**

- **Electricity Safety Act 1998**
- **Gas Safety Act 1997;**
- **Building Act 1993,** including the mandatory standards in the schedule to that Act;
- **Building Code of Australia 2008;**
- **Electricity Safety (Installations) Regulations 2009;**
- **Electricity Safety (Equipment) Regulations 2009;**
- **Gas Safety (Gas Installation) Regulations 2008;**
- **Plumbing Regulations 2008; and**
- **Code of Practice for Safe Electrical Work.**

From a date to be specified by the Commission, a prescribed activity must be carried out by a person who meets any applicable training requirements specified by the Commission under clause 5.4.1

5.4 Training

5.4.1 Commission to specify units of competency

The Commission may specify that certain units of competency listed in the Australian Quality Training Framework are required for safety reasons by persons undertaking certain prescribed activities.

Prior to specifying a unit of competency, the Commission will consult on the proposal and on the lead time required by industry to implement the proposal if it proceeds.

Details of units of competency specified under this clause will be provided to all accredited persons and published on the Commission's website. Unless otherwise stated, each unit of competency is taken to be specified for the purposes of this clause on the date it is published on the Commission's website.

5.4.2 Compliance with training requirements

As a condition of accreditation, an accredited person must:

- ensure that all individuals undertaking relevant prescribed activities for or on behalf of the accredited person, have been assessed as competent in all the applicable units of competency specified by the Commission under clause 5.4.1; and

- on request by the Commission, supply evidence that all relevant individuals have achieved competency in those units.

A person who is an accredited person on the relevant date or who has applied for accreditation before the relevant date and whose application has not been decided by that date must, within three months of the relevant date, supply evidence that its business systems provide for the applicable training to be completed by all individuals undertaking relevant prescribed activities for or on behalf of that person.

In this clause, the relevant date is the date on which the Commission specifies units of competency under this clause that are relevant to the prescribed activities undertaken; or to be undertaken, by individuals for or on behalf of an accredited person.

Extract from Explanatory Note - Guide to VEET Accreditation (Version 3.4 – 24 February 2012).

The following is a guide to the aspects of your business activities which should be addressed in your application.

- *Training and development (All applicants)* – A description of your approach to ensuring that all parties undertaking activities on your organisation's behalf are familiar with:-

    - the relevant standards and requirements of the prescribed activities;
    - the requirement to replace only appliances that are not energy efficient (in particular for lighting and shower roses)
    - the nature of the abatement claim, i.e. lifetime abatement claim upfront;
    - the function and importance of the VEEC assignment form;
    - the requirement that the VEEC assignment form be signed by the consumer;
    - the possible consequences of invalid or fraudulent VEEC creation;

You should take particular note of the requirements for all installers to have a certificate of competency from a Registered Training Organisation for the units relevant to those activities you wish to engage in. The courses are detailed in the following table. The only exception to this requirement is in the case of fully qualified and licensed electricians and plumbers wishing to undertake prescribed activities under Schedules 13, 14, 15, 17 and 21. Electricians and plumbers wishing to undertake these activities do not need to fulfil the mandatory safety training requirements listed below, but instead must submit evidence of their license to the ESC before engaging in VEET activities.

The VEET mandatory safety training regime was amended in January 2012 in response to changes to RTO course design and availability in Victoria. Table 2

sets out the current eligible MST units. Installers who had fulfilled the mandatory safety training requirements as at 1 February 2012 will continue to be eligible to undertake the relevant VEET activities.

Table. 2 – Mandatory safety training unit eligibility - Training conducted after 1/2/12

	Activity description/VEET Regulations schedule number	**Mandatory safety training unit**
Group 1	Insulation activities/11 and 12	**CPCC OHS2001A** Apply OHS Requirements, Policies & Procedures in the Construction Industry; or **CPCPCM2003A** Carry Out OHS Requirements; and **CPCCCM1006A** Work Safely at Heights; and **CPCCPB3014A** Install Batt Insulation Products; or **CPCCPB3027** Install Ceiling Installation.
Group 2	External window activities/13 and 14* Weather sealing/15* Shower rose/17* Lighting/21*	**VU20790** Undertake retrofitting to improve energy and water efficiency; and **VU20781** Minimise health and safety when retrofitting homes for energy and water efficiency; or **CPCC OHS2001A** Apply OHS Requirements, Policies & Procedures in the Construction Industry; or **CPCPCM2003A** Carry Out OHS Requirements.

* Fully qualified and licensed electricians and plumbers do not need to fulfil these mandatory safety training requirements, but must instead submit evidence of their license to the ESC before engaging in VEET activities.

You should also note:

- that new APs provide information regarding installer training, including management arrangements they have put in place to ensure training is completed, as a condition of their accreditation.

- that APs notify the Commission of the method of completion for all trainings within 7 days of that completion, and keep on file records supporting that completion.
- that completion be by either:
    - attending a recognised course at an RTO leading to a certificate for the installer; or,
    - recognition of prior learning or 'in house' training by an RTO leading to a certificate for the installer.

Further information about these courses can be obtained from the National Training Information Service website (http://www.ntis.gov.au/) or any Registered Training Organisation (lists can be obtained from the same website).

You should also describe the arrangements you have in place to keep a record of agents/installers undertaking the activities on your organisation's behalf.

- Contractual arrangements (All applicants) – A description of the contractual arrangements you have in place in respect of the persons undertaking the prescribed activities on behalf of the accredited person (installer). The ESC requires that there be a formal, documented and enforceable contract or agreement between the accredited person and the installer to ensure a sufficient degree of accountability by the accredited person.

- Product details – Where you seek to create VEECs in respect of insulation, lighting, shower rose, window retrofit, evaporative cooler, pool pump, standby power controllers, in-home displays and/or weather sealing activities, you will need to submit details of the products that you intend to install, including documentary evidence that the product meets the specifications of the VEET Regulations. You may submit details of the products as part of this accreditation application or at a later date by completing and submitting an 'Application for VEET Approval of a Product'. Please see the 'Explanatory Note – Creating Victorian Energy Efficiency Certificates from Prescribed Activities' for more information on applying for VEET approval of the product, or products, you wish to install.

- Licensing information – You must provide evidence that the persons engaged to undertake the prescribed activities hold the relevant licenses to carry out the activity, where applicable.

<u>The 2010 VEET Safety Review</u>

In 2010, VESC commissioned Riskpro Pty Ltd to undertake a desk top risk assessment to identify potential occupational health and safety risks to installers

and Victorian householders associated with undertaking VEET scheme activities. The assessment was based on ISO 31000:2009 Risk Management - Principles and Guidelines. All existing and proposed VEET activities were reviewed individually, allocating a risk category and identifying which stakeholder was at risk, and assessing the potential likelihood and consequences of each identified risk.

The safety review concluded that many VEET prescribed activities had the potential to cause fatalities. Those activities that were "regulated" (carried out by licensed plumbers, gasfitters or electricians) were assessed to be of medium risk due to the presence of regulatory controls in place to manage those risks including training, skilling, existence of documented codes and standards, supervision and self-certification. However, activities that are non-regulated were assessed as being of high risk due to the absence of controls and mandatory training for those activities.

Riskpro made a number of recommendations to address these risks which have been useful to ESCV in addressing some of the safety issues associated with the VEET.

12. Appendix B: REES Legislative Provisions for Safety

Extract from the REES Code (January 2012)

5.1. Compliance plans

5.1.1. By no later than 31 March in each REES year, each obliged retailer must submit to the Commission a compliance plan for the REES year in accordance with the requirements of this clause 5.1.

5.1.2. A compliance plan must include at least the following matters:

(c) a description of the training provided to the obliged retailer's employees, contractors and/or agents in relation to the performance of energy audits and energy efficiency activities;

8.5. Mandatory Safety Requirements

8.5.1. By no later than 31 March 2012, an ***obliged retailer*** must ensure that all persons conducting ***energy audits*** or ***energy efficiency activities*** on behalf of that ***obliged retailer*** have undertaken all necessary training (including, without limitation, occupational health, safety and welfare training) to provide those ***energy audits*** or ***energy efficiency activities*** in accordance with the specifications of this REES Code and other legislative requirements.

8.5.2. At the request of the Commission, an obliged retailer must provide evidence (in the manner and form specified by the Commission) of the matters specified under clause 8.5.1.

8.6. Fit and proper person test

8.6.1. An ***obliged retailer*** must:

(a) ensure that an assessment is made of the fitness and propriety of each person conducting an energy audit or energy efficiency activity in a residential customer's premises on the behalf of the obliged retailer; and

(b) be satisfied that the person is a fit and proper person to conduct energy audits or energy efficiency activities in residential customers' premises.

8.6.2. At the ***Commission's*** request, an ***obliged retailer*** must supply evidence in relation to the obligations imposed under clause 8.6.1.

FOR ALL ACTIVITIES:

1. The description and specifications for activities contained within this document are minimum requirements for the purposes of complying with the REES. They are not intended to be exhaustive. In particular, in addition to the specifications set out in this document, all activities must be undertaken in accordance with all laws, regulations and codes of practice applicable to that activity. By way of example, and without limitation, these may include:

- Electricity Act 1996
- Gas Act 1997
- Plumbers, Gas Fitters and Electricians Act 1995
- Building Work Contractors Act 1995
- Ozone Protection and Synthetic Greenhouse Gas Management Act (1989)
- The Waterworks Act 1932
- The Development Act 1993

[For each eligible activity the REES code specifies the training requirement for installers and the relevant Australian Standard that must be met.]