



Unlocking Energy Savings in NSW:

Enhancing the NSW Energy Savings Scheme

Rule change submissions report

About this document

This paper outlines submissions received on the proposed changes to the *Energy Savings Scheme Rule of 2009* (the ESS Rule), the NSW Government's response and the resulting changes to the Rule.

The Government invited submissions from all interested parties on the proposed Rule change from 30 October 2013 to 11 December 2013.

The complete text of all submissions is publicly available on the NSW Trade & Investment website (see www.resourcesandenergy.nsw.gov.au/energy-consumers/sustainable-energy/efficiency/scheme). In publishing submissions, the NSW Government has complied with all requirements under applicable privacy laws. Those submissions marked as confidential have not been published.

Some terms in this document have specific meaning in the NSW Energy Savings Scheme. They are designated in title case (leading upper case letters). For definitions of these terms, please refer to Clause 10 of the ESS Rule, Section 99 of the *Electricity Supply Act 1995*, and Clause 78A of the *Electricity Supply (General) Regulation 2001*.

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1 Introduction

The NSW Government publicly released a Consultation Paper on 30 October 2013 outlining proposed changes to the Energy Savings Scheme Rule of 2009 (the ESS Rule). The paper was exhibited for a six week consultation period. The objectives of the proposals were to:

1. encourage the up-take of a broader range of energy efficiency activities that can participate in the ESS
2. remove unnecessary red tape that creates a barrier to households and businesses accessing incentives available through the ESS
3. ensure consumers receive lasting savings through quality products and services
4. drive change by targeting energy savings certificate (ESC) creation to actions considered 'additional' to what would have occurred in the absence of ESS support.

A public forum was held on 20 November 2013 to facilitate industry engagement in response to the proposed changes. This forum included technical sessions on proposed changes to the Commercial Lighting Formula sub-method and the proposed new Home Energy Efficiency Retrofit sub-method (HEER). A Project Impact Assessment with Measurement and Verification Method (PIAM&V) workshop was held on 9 December 2013 for key industry stakeholders to help communicate the proposals in detail.

Feedback received through written submissions and at the stakeholder forum has been generally supportive of the Government's policy intent for the reforms to the ESS Rule. The Government received a total of 97 written submissions and the stakeholder forum attracted over 300 attendees including service providers, energy users, government, and peak bodies. Analysis of submissions indicates an overall 62% support for the proposals.

The proposals were strongly supported by the energy efficiency, clean energy, environment and social equity peak bodies:

"EECCA commends the Government for its continued commitment to the NSW ESS, and to market-based policies to overcome the barriers to energy efficiency... We congratulate the Government on its continued national leadership policy innovation in this space"

Bruce Easton – President of Energy Efficiency Certificate Creators Association (EECCA)

"We strongly support the Energy Savings Scheme as a mechanism to reduce electricity consumption and electricity costs... as it relates to residential households, particularly low-income households"

Alison Peters - Chief Executive Officer Council of Social Service of New South Wales

Stakeholders have suggested changes to the proposals raised in the Consultation Paper and these have been considered by Government. This document summarises the comments in relation to each section of the Consultation Paper, provides a Government response and describes how the changes have been integrated into the ESS Rule.

1.1 Overview of submissions

The NSW Government received a total of 97 submissions on the proposed ESS Rule change. **Figure 1** shows the breakdown of submissions by type of individual or organisation. A large number of submissions were received from Accredited Certificate Providers (ACPs) and suppliers, with a significant number received from local government, peak bodies and residential service providers.

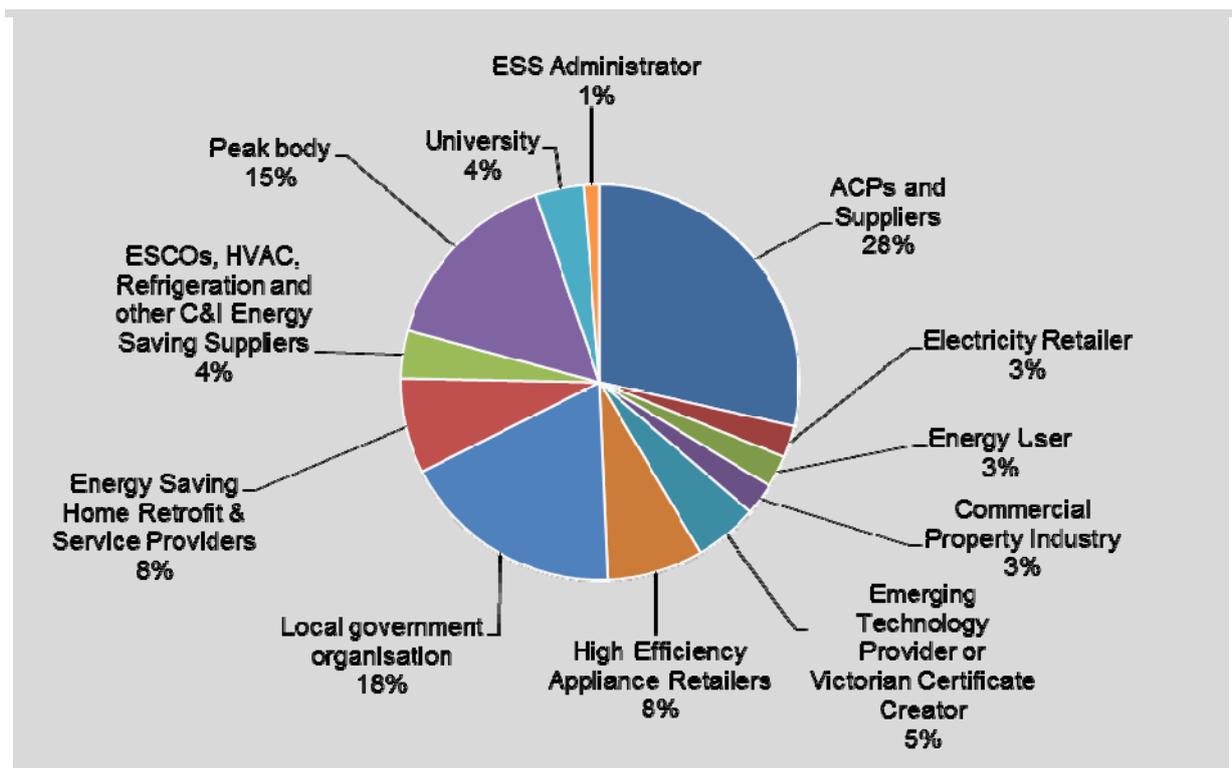


Figure 1 Breakdown of submissions by stakeholder type

Figure 2 shows a breakdown of stakeholder comments by type and section of the Rule change consultation paper. A significant number of comments were made in relation to home energy efficiency retrofits and better targeting of incentives for lighting upgrades reflecting significant stakeholder interest in these two areas.

Stakeholders also requested clearer requirements under Project Impact Assessment with Measurement and Verification Method (PIAM&V) to be outlined in the Rule change.

A number of positive and neutral comments were also received in relation to high efficiency appliances and retiring old refrigerators and freezers. A number of positive comments with a request to change the Rule, were also received in relation to transitional arrangements.

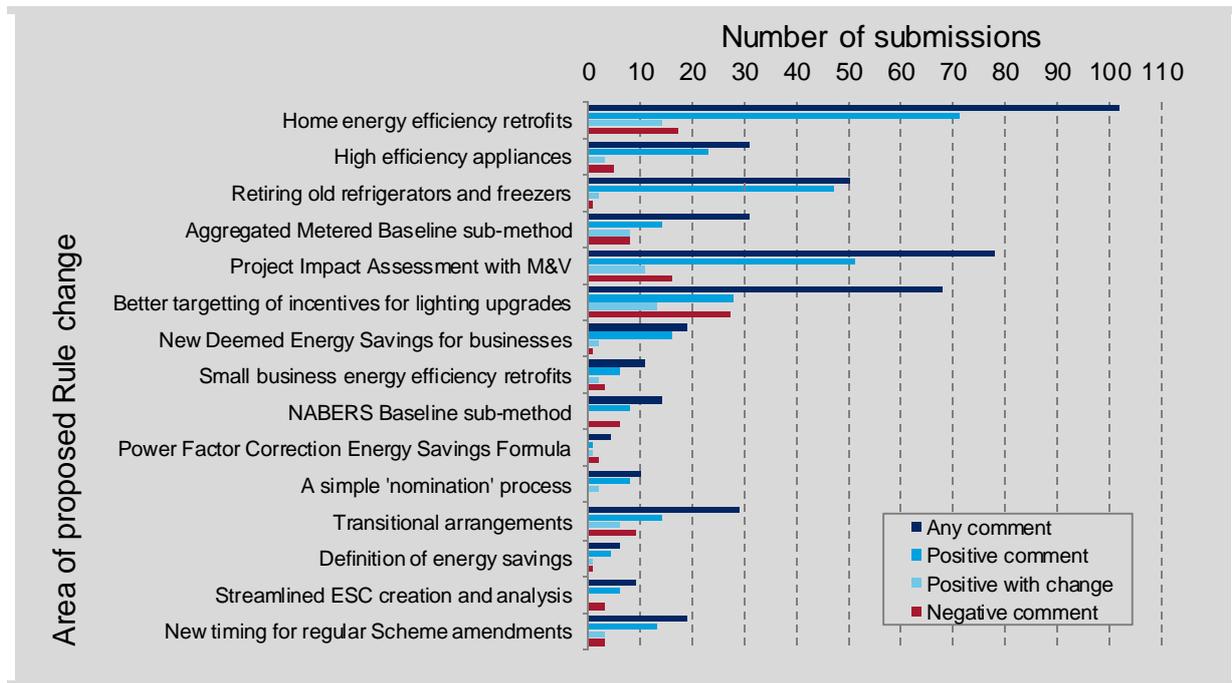


Figure 2 Comments by level of support for changes and section of consultation paper

1.2 Stakeholder survey

The Rule changes include three new methods to calculate Energy Savings: Project Impact Assessment with Measurement and Verification Method (PIAM&V), Home Energy Efficiency Retrofits (HEER) and the Aggregated Metered Baseline sub-method (AMB).

In February 2014, the Office of Environment and Heritage (OEH) conducted a survey of stakeholders on how the Rule changes could affect their organisations, including whether they planned on becoming accredited to use the new calculation methods.

Figure 3 shows analysis of the responses related to interest in use of the new methods. It shows strong interest in all three of the new calculation methods with around 50 organisations expressing interest in each method. This is around 70% of existing or prospective ACPs and their business partners who participated in the survey.

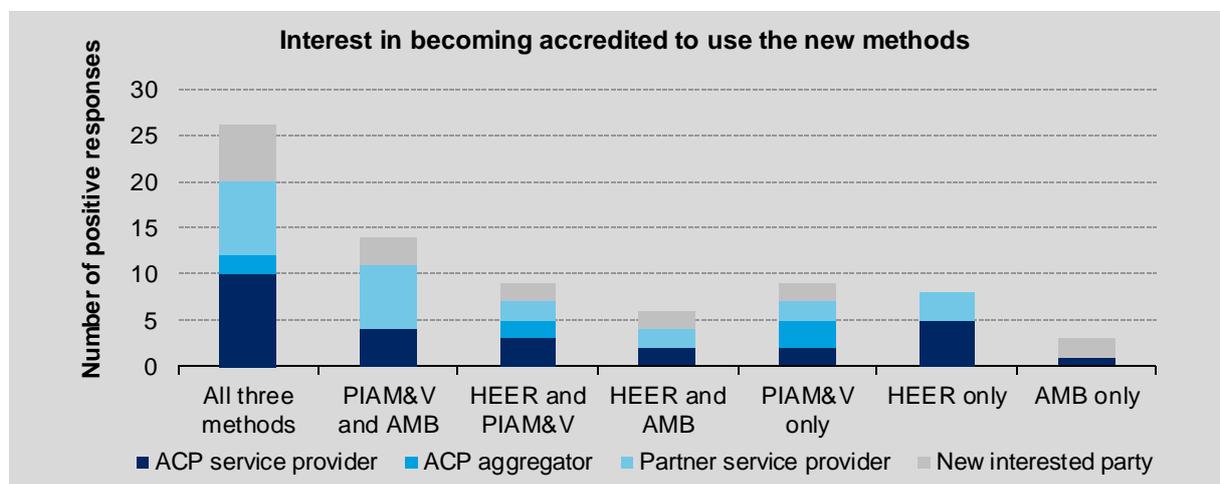


Figure 3 Survey responses on interest in becoming accredited to use the new methods

2 Helping households save energy

2.1 Home energy efficiency retrofit

Proposal

ESS Rule: §9.8, Schedule D, Schedule E

The NSW Government proposed to create a new sub-method in the ESS for upgrades to residential building fabric and fixed appliances.

The ESS would provide incentives where a household's service provider carries out a bundle of energy efficiency upgrades. A home energy assessment tool will be used for streamlined record-keeping and compliance for ACPs and the Scheme Administrator. The assessment tool can also assist in providing households with better information on opportunities to save energy.

The home energy assessment tool will also automate proposed bundling rules designed to deliver deeper energy savings per transaction with the household. Bundling rules will require sufficient Schedule E activities to be installed in order to meet a minimum percentage of the maximum Energy Savings identified in a home energy assessment from Schedule E activities. This minimum percentage is proposed to be:

- 25% if a Schedule D activity is installed
- 75% if no Schedule D activity is installed
- another percentage as published by the Scheme Administrator.

This proposal is also seeking to ensure customer engagement for quality products and services by requiring a minimum co-payment from the householder of \$150 (ex. GST).

The home energy efficiency retrofit activities (and the schedule they are classified by) include:

- | | |
|--|-----------------------------------|
| ▪ high efficiency pool pumps (D) | ▪ draught-proofing of doors (E) |
| ▪ high efficiency air conditioners (D) | ▪ draught-proofing of windows (E) |
| ▪ high efficiency window glazing (D) | ▪ chimney dampers (E) |
| ▪ ceiling, wall and floor insulation (D) | ▪ high efficiency lighting (E) |
| ▪ window film (E) | ▪ ultra-low-flow showerheads(E) |

2.1.1 Minimum co-payments

Many stakeholders support the introduction of a minimum co-payment to ensure consumer engagement. However, a number of stakeholders believe that \$150 is too high, particularly for low income households, and that a lower dollar value (suggestions ranged between \$50

and \$99) could still ensure customer engagement while providing more sales opportunities for industry.

Government response

A lower minimum co-payment from households could still ensure customers are engaged. A lower minimum co-payment may also allow industry to innovate and deliver energy savings for more households through this sub-method. The affordability of co-payments from low income households will be reviewed as part of the Review of the Energy Savings Scheme.

Changes from the proposed Rule

The ESS will require a minimum co-payment of \$90 excluding GST (ESS Rule: §9.8.1 (h)).

2.1.2 Bundling

A number of stakeholders suggested that the proposed bundling requirements may limit the potential for energy savings to be delivered due to:

- limits on consumer choice and business models
- the likelihood that multiple skilled tradespeople would be required to visit a household in order to meet bundling requirements, driving increased costs.

As a result, stakeholders proposed revisiting the bundling percentages, and aligning bundling to limit the number of tradespeople required on site, or a simplified approach.

Government response

In principle, bundling provides consumers with an incentive to implement deeper energy savings while allowing flexibility in business models. However, the bundling requirement may be too restrictive when only low cost activities are installed.

The benefits of aligning bundling rules with the skilled tradespeople required to undertake activities have been acknowledged following stakeholder feedback. The Independent Pricing and Regulatory Tribunal (IPART) will have discretion to create new bundling requirements. The NSW Government will continue to work with IPART and industry to optimise bundling requirements over time.

Changes from the proposed Rule

ACPs will be required to bundle at least 50% of the maximum Schedule E Energy Savings identified in the Site Assessment if only Schedule E activities are undertaken (ESS Rule: §9.8.1 (g)(ii)). If at least one Schedule D activity is undertaken this requirement is only 25% (ESS Rule: §9.8.1 (g)(i)).

2.1.3 Eligibility, equipment and implementation requirements

Most stakeholders supported the proposed requirements to ensure high quality products and equipment are used. A number of residential service providers and ACPs recommended additional requirements to comply with Australian Standards or other legislation.

Changes from the proposed Rule

Minor changes have been made to the requirements, including aligning requirements with the Commercial Lighting Formula (ESS Rule: Schedules D and E).

2.1.4 Inclusion of insulation in the proposed sub-method

Multiple stakeholders responded that the risks of including insulation in the ESS can be managed. Stakeholders, including product manufacturers, peak bodies, and residential service providers, provided detailed risk mitigation measures including:

- requiring installers to be accredited under an approved industry training program
- minimum warranties (25 years for products and 10 years for installation)
- quality assurance audits (including site visits) for 5-10% of installations.

Government response

The findings of the Australian Government's Royal Commission into the Home Insulation Program are due on or before 30 June 2014. Insulation activities will not be eligible under the ESS until a later date, once the findings of the Royal Commission have been considered and the necessary risk mitigations measures put in place. At this time, the Minister for Resources and Energy may consider allowing insulation activities.

Changes from the proposed Rule

Insulation activities will not commence until a date notified by the Minister for the Resources and Energy by notice published in the *NSW Government Gazette* (ESS Rule: §1.1(a) and Activities D6, D7, D8, and D9 of Schedule D).

2.1.5 Additional home retrofit activities

Some stakeholders agreed that the proposed list of activities was comprehensive. A range of stakeholders suggested additional activities that should be included in the ESS. These include:

- ceiling fans
- hot water tank and pipe insulation
- awnings and window shading
- draft proofing for exhaust fan seals
- gas heaters and hot water systems
- heat pumps and solar hot water
- in-home display units
- various forms of standby power controllers
- indirect evaporative coolers and air ventilators

Government response

The ESS cannot support heat pump or solar hot water while these technologies are eligible under Australian Government's Renewable Energy Target.

Energy savings through some of the proposed activities are highly reliant on user behaviour (such as in-home displays and standby power controllers). These products and services can now access the ESS through the Aggregated Metered Baseline Method.

Other activities with readily available performance specifications may be considered in future Rule changes based on additional modelling consistent with the current building fabric technologies. Subject to the Review of the Energy Savings Scheme, high efficiency gas equipment may also be considered.

2.1.6 Residential Downlight Replacement

The Energy Efficiency Certificate Creators Association (EECCA) suggested that the existing calculation method for the replacement of halogen downlights in households should not be removed from the ESS Rule until Home Energy Efficiency Retrofits is available for use.

Government response

A stand-alone calculation method for residential downlight replacement will be retained to assist in business continuity and a smoother transition to Home Energy Efficiency Retrofits.

A new clause for 1-for-1 downlight replacement in households and small businesses has been included in the Rule. An ACP must be accredited on or before 1 October 2014 to conduct these activities, for which they will be able to create ESCs up to 31 January 2015. From 1 October 2014 onwards, applications for 1-for-1 downlight replacement will no longer be accepted. After this date ACPs can apply to be accredited under HEER if they wish to continue downlight replacement activities.

Changes from the proposed Rule

A new clause has been created to allow 1-for-1 downlight replacement (ESS Rule: § 9.10 and Table G1 of Schedule G).

2.2 Sale of high efficiency appliances

Proposal

ESS Rule: §5.2, §9.3, Schedule B

Adding more energy star rated appliances to align with Victoria

The NSW Government proposed to include high efficiency televisions and clothes dryers in the ESS and provide incentives for more appliances that carry energy star ratings. This would assist in harmonising the ESS with the VEET scheme by better aligning the range of appliances for which both states offer incentives.

Appliance Retailers to be the original Energy Saver

The NSW Government proposed to assign the role of Energy Saver for high efficiency appliances to the appliance retailer to reduce red tape and encourage the sale of high-efficiency appliances through the ESS. Acceptable proof of sale would be an extract of records from a retailer's sales ledger, showing the make, model and serial number of an appliance with a NSW delivery address.

2.2.1 Appliance categories

High efficiency appliance retailers and a number of ACPs suggested the inclusion of a range of additional technologies:

- microwaves
- hot water systems
- blenders
- kettles
- in-home displays
- computer monitors

Government response

There may be additional appliance categories not included as deemed savings factors in the ESS. However, most are not yet defined by a performance specification under Minimum Energy Performance Standards (MEPS) or Australian Standards, making a deemed savings factor inappropriate.

Star ratings for computer monitors are now available. However, the sales data required to identify the market average energy efficiency is not available. Computer monitors and any other appliances with star ratings will be reviewed for inclusion in the future.

Changes from the proposed Rule

Default savings factors have been reviewed in line with 2013 sales data to ensure the baselines for energy savings are still appropriate (ESS Rule: Schedule B).

2.2.2 Definition of Energy Saver

Many stakeholders, including high efficiency appliance retailers, ACPs, peak bodies and energy retailers were strongly supportive of the proposed change to assign the role of Energy Saver for high efficiency appliances to the appliance retailer.

Other stakeholders raised concerns that the change may reduce customer engagement with energy efficiency and may not lead to any increase in high efficiency appliance sales. These stakeholders suggested making the Energy Saver the purchaser or requiring appliance retailers to label products that are eligible for ESS incentives.

The Australian Institute of Refrigeration Air Conditioning and Heating (AIRAH) suggested assigning the manufacturer or importer as the Energy Saver.

Government response

There is a need for customer engagement in the purchase of high efficiency appliances. However, it is unnecessary for end-users to be engaged in the administrative processes of the ESS. If appliance retailers do not change their business practices to actively promote the sale of high efficiency appliances, certificate creation from this activity will be minimal.

As the ESS is a voluntary scheme it is inappropriate to mandate that appliances display a label. The ESS will provide access to financial incentives and enable the retail market to determine how best to sell high-efficiency appliances, whether through labelling or another strategy.

Appliance retailers are the appropriate Energy Saver as they have direct contact with end-users, unlike product importers and manufacturers. Appliance retailers also have a pivotal role in determining the products available in the market through their suppliers.

Changes from the proposed Rule

The term 'Purchase of New Appliances', as proposed in the draft ESS Rule, has been amended to the term 'Sale of New Appliances' in clause 9.3.

2.2.3 Other issues raised by stakeholders

Additionality

Peak bodies and some ACPs suggested that appliance retailers should be required to demonstrate how the proposed Recognised Energy Savings Activities would use energy savings certificates to drive changes beyond business as usual sales.

The City of Sydney suggested that the effectiveness of the change could be evaluated using sales data over time.

Response: Updating savings factors on an annual basis will ensure that the ESS only rewards the sale of high efficiency appliances above market average efficiency. This strategy will be evaluated by comparing sales to previous years and to other jurisdictions.

Delivery Address

One ACP cautioned against being overly restrictive on what constitutes a 'delivery address' as many customers may pick the appliance up individually rather than have it delivered.

Response: The current wording in the Rule already achieves this: "*each item of End-User Equipment was delivered to an Address or purchased by a person with a recorded Address*".

2.3 Removal of old refrigerators and freezers

Proposal

ESS Rule: §9.7, and Schedule C

The NSW Government has reviewed the activity definition and proposes simplified eligibility criteria that reduce red tape, and revised Default Savings Factors matching those new criteria. This will help the market provide cash or discounts to households to remove their old and inefficient refrigerators and freezers.

The NSW Government also sought feedback on whether a similar incentive to the retirement of old fridges and freezers could be introduced for the permanent removal and disposal of old and inefficient air conditioners and save significant amounts of energy.

2.3.1 Eligibility criteria and default savings factors for removing old refrigerators and freezers

There was broad support from stakeholders from local government, ACPs, appliance retailers, and home retrofit service providers for the proposal to simplify eligibility criteria and Default Savings Factors to encourage the retirement of old fridges and freezers.

Government response

Submissions indicate that the proposed reductions in red tape meet stakeholder needs. The Default Savings Factors for the retirement of old fridges and freezers have been reviewed and are still appropriate.

2.3.2 Including the removal of inefficient air conditioners

Many stakeholders from local government, some ACPs, high efficiency appliance retailers, home retrofit service providers and an industry association, welcomed extending the program to the removal and disposal of old and inefficient air conditioners.

However, the City of Sydney and a residential service provider noted that, unlike fridges and freezers, households tend not to have redundant air conditioners. Removing these products may not be in keeping with the ESS which aims to reduce consumption without reducing service levels.

Government response

The permanent removal and disposal of old and inefficient air conditioners is likely to save significant amounts of energy. The purpose of the ESS is to reduce energy consumption without reducing service levels. An incentive to simply remove old air conditioners is therefore not supported.

The new ESS Rule includes deemed savings factors to replace an old air conditioner with a new high efficiency air conditioner under the Home Energy Efficiency Retrofit sub-method (ESS Rule: § 9.8).

2.3.3 Other issues raised by stakeholders

Safe disposal

Peak industry bodies supported requirements of de-gassing and disposal of refrigerants in accordance with Australian law.

Response: De-gassing and disposal of refrigerants must comply with existing legislation. It is not IPART's role to regulate compliance with other legislation. Based on this, the Rule has been amended to remove reference to legislation outside of the ESS, but require a refrigerant handling licence as evidence of Removal of Old Appliances (ESS Rule: § 5.3 (c), and 9.7.1 (d)).

Other old appliances

The City of Sydney and a high efficiency appliance retailer suggested that removal of old appliances could be extended to other types of technology such as televisions.

Response: Extending the ESS to the removal of other types of appliances will be investigated as part of future Rule changes.

2.4 Aggregated Metered Baseline sub-method

ESS Rule: §8.9

The NSW Government proposed to include a new method called the Aggregated Metered Baseline Method (AMB Method) in the ESS Rule. The AMB Method will allow ESCs to be created from programs that help households better manage their energy use.

The calculation method is based on the best-practice experimental approach of the randomised controlled trial. Energy savings are calculated by estimating the difference in electricity consumption between a control and treatment group.

2.4.1 Inclusion of the proposed sub-method

The AMB sub-method is generally supported by a number of industry stakeholders including ACPs and peak industry bodies. Opower, a stakeholder that has delivered energy efficiency information programs across North America, Europe, and Asia Pacific, commented that:

“[r]evising the ESS to include the AMB method will bring NSW into line with best practices for rigorous measurement of behavioural efficiency programs.”

In their public submission to the consultation process, IPART stated that the inclusion of the AMB will likely increase access for the residential sector to the ESS, lower administration and compliance costs and improve the accuracy of energy savings measurement.

EECCA and a number of other industry stakeholders support the approach in principle, however suggest that the proposed method is overly complicated, which may hinder uptake. These stakeholders did not make suggestions on how it could be simplified.

Government response

The AMB sub-method allows measuring the benefits of energy savings programs that could otherwise not be calculated. The sub-method is complex but this is inherent to such a statistical analysis. Guidance materials will be prepared to clarify requirements, but statistical expertise will still be required to calculate Energy Savings.

Changes from the proposed Rule

Numerous amendments have been made to simplify the method where possible (ESS Rule: §8.9).

2.4.2 Minimum sizes of treatment and control groups

The Clean Energy Council identified that having no requirements around minimum sizes of treatment or control groups can lead to reduced statistical accuracy. This could see variations within a small group, which may have a significant effect on the baseline and could result in energy savings estimates being significantly lower than the actual energy savings achieved.

Government response

Businesses can calculate the optimal minimum size of treatment and control groups. Guidance will be provided on the minimum size of these groups, but the market will be left to innovate and determine the minimum size for commercial viability.

2.4.3 Ensuring accuracy

Stakeholders identified a number of areas where the proposed statistical method was too conservative, and discounted real energy savings beyond the principles of standard statistical rigour. For example, Opower presented evidence that the proposed approach to ensure accuracy would remove a full 45% of energy savings.

Government response

The original proposal's approach to discounting and accuracy was too conservative. The AMB sub-method has been amended accordingly.

Excluding a site that only has partial measurement data for a given period is too conservative, and a statistical method has been provided to account for this in the Rule .

Changes from the proposed Rule

The AMB sub-method has been amended to use a t-test at a 95% confidence level to ensure Energy Savings are real (ESS Rule: §8.9 Methods 5.2 Step (3), 5.3 Step (4) and 5.4 Step (5)).

The AMB sub-method has also been amended to allow energy savings to be calculated for partial measurement data for a given period (ESS Rule: §8.9.2 (f) and (g); and Methods 5.1, 5.2, 5.3 and 5.4).

2.4.4 Pre-treatment data

Some stakeholders identified that including baseline usage data would significantly increase the accuracy of randomisation, third-party verification, and program savings estimates. The method, as consulted on, does not allow for the use of pre-treatment energy usage data to measure and verify program energy savings.

Government response

The use of pre-treatment data is useful for estimating Energy Savings and to verify that estimates are unbiased.

Changes from the proposed Rule

The AMB sub-method has been amended to allow the use of pre-treatment data as part of estimating energy savings (ESS Rule: §8.9 Method 5.3 and 5.4).

2.4.5 Double counting with other activities

Some stakeholders suggested that the proposed survey methods to estimate double counted savings under the AMB sub-method were not practicable or rigorous. They were concerned that this may result in unjust penalisation of otherwise rigorously measured program savings. These stakeholders recommended that NSW Government register sites participating in the ESS to enable double counting to be more easily estimated.

The Institute for Sustainable Futures (ISF) suggested that the only way to avoid double counting is through coordination between regulators.

Government response

Survey methods are less accurate than the other elements of the new method which rely on metered data. Estimating double counting with surveys may bring a level of inaccuracy to an otherwise accurate method.

The NSW Government will investigate building a statistically robust database to estimate uplift based on other Methods in the Rule. Until such a database is available, or if an estimate cannot be determined, an uplift value of zero will be used. The development of this database will be assisted through the new requirement for all ACPs to submit data on their projects prior to creating ESCs.

Changes from the proposed Rule

The AMB sub-method has been amended to remove the use of surveys to estimate double counting (ESS Rule: §8.9 Method 5.1 Step (3) and Method 5.5).

2.4.6 Allowing customers to “opt-in” to programs

A number of stakeholders suggested that it is important to develop additional statistical approaches that allow opt-in programs. ISF proposes a household or business should be able to opt-in to a population but not a specific treatment group and the development of an opt-in method using time-series analysis.

Government response

Sites will be allowed to opt-in to a population. Other methods for opt-in maybe considered for future Rule changes.

Changes from the proposed Rule

The AMB sub-method now allows opt-in to population (ESS Rule: §8.9.2 (a)).

2.4.7 Statistical validation by an accredited statistician

Some stakeholders sought clarification of the role of the Independent Statistician and the expertise required under the AMB Method. ISF proposed a few alternatives including:

- allowing any 'reasonable' organisation or person to conduct the analysis and requiring them to submit the raw data and details of their analysis so that it can be audited
- allowing any 'reasonable' organisation/person to conduct the analysis with a requirement that a third party conduct an audit of the analysis
- a register or panel of independent approved statisticians.

ISF recommended that approved statisticians should be drawn on for both accreditation and audit of Recognised Energy Saving Activities under this method. The qualifications of the independent statisticians should be consistent with a national or international framework for the accreditation of professional statisticians to ensure consistency, rigour and sufficient supply.

Government response

The role of the Independent Statistician is to approve statistical methods employed by an ACP prior to commencing a program.

Changes from the proposed Rule

The role of the Independent Statistician has been clarified (ESS Rule: § 8.9.7 (e)).

3 Helping businesses access energy saving opportunities

3.1 Project Impact Assessment with Measurement and Verification

Proposal

ESS Rule: §7A

The NSW Government proposed to provide clear requirements for engineering assessments of energy savings projects under a new method called Project Impact Assessment with Measurement and Verification (PIAM&V) method.

These requirements would be based on integrating Measurement and Verification (M&V) principles from the International Performance Measurement and Verification Protocol (IPMVP) with features of the existing Project Impact Assessment (PIA) method.

The new PIAM&V method would have a number of other enhancements including:

- an increase in forward creation of certificates to 10 years
- a change in the discounting applied to forward creation through the use of a persistence factor model
- enabling 'top-up' certificates that recoup discounted energy savings to be created annually through ongoing M&V
- requirement for energy models to be deemed appropriate by a M&V professional
- defining how site sampling can be used to minimise M&V costs when the same activity is applied across a number of sites.

3.1.1 M&V requirements under the new method

Stakeholders agreed that the proposed PIAM&V had clearer requirements compared to the existing Project Impact Assessment (PIA) method but suggested that the requirements as published during consultation may not be simpler. Clearer rules could reduce the cost of using PIAM&V compared to the existing PIA. However, the overall cost structure required to collect data, conduct analysis and finalise reports would remain substantial.

Most stakeholders agreed that the proposed PIAM&V enables high quality estimates of savings. The Energy Efficiency Certificate Creators Association (EECCA) suggested that the PIAM&V method is a significant improvement on the existing PIA method in a number of ways:

- requirement for an M&V plan prior to implementation makes it more likely that projects are additional
- clear guidelines for M&V will increase the consistency and certainty in energy savings

- evidence based forward creation after M&V will encourage implementation of projects with significant savings
- sign off by an M&V professional will help streamline accreditation, improve consistency, reduce administrative costs, and provide investors with greater certainty.

Government response

The new M&V requirements should not add to the administrative burden on ACPs compared to the existing PIA. However, it should result in shorter timeframes for accreditation and over time a more constant approach engineering estimates of energy savings.

The PIAM&V guidelines should assist ACPs with their M&V approach enabling ACPs to better predict the costs of accreditation and audit, shorter timeframes for accreditation and incur lower audit costs. This should lead to lower overall costs per ESC created.

Changes from the proposed Rule

PIAM&V has been re-drafted following consultation to improve the clarity of the method. A large amount of information has been removed from the Rule to be included in guidance materials (ESS Rule: §7A).

3.1.2 The role of the M&V Professional

Stakeholders attending the PIAM&V technical workshop questioned the need for the M&V Professional to be independent of the ACP and argued that this may unnecessarily increase their administrative costs.

EECCA noted that to maximise these benefits of having an M&V professional NSW Government should ensure:

- sign off is not duplicated in the broader accreditation process
- IPART establishes a broad and competitive audit panel with M&V expertise
- the sign off is a desktop review with details to be verified through audits.

Government response

The M&V Professional is no longer required to be independent of the ACP. This could have led to duplicated processes at accreditation and audit. IPART will identify suitably qualified M&V professionals to audit projects using PIAM&V.

Changes from the proposed Rule

The role and experience required of the M&V professional has been clarified (ESS Rule: §7A.3 to 7A.9 and 7A.15).

3.1.3 Sampling of sites to reduce M&V costs

Most industry stakeholders strongly support the clarification of how multi-site Recognised Energy Saving Activities (RESAs) are dealt with under the PIA M&V to make the ESS more accessible for smaller projects. ACPs and home retrofit service providers recognise that sampling is a cost effective way to conduct M&V where projects are similar. One ACP identified that the risk of this approach can be minimised by using confidence levels and

statistical analysis. EECCA suggested that guidelines could clearly set out criteria for determining accuracy factors.

The City of Sydney, whilst supporting the proposal in principle, identified that sampling is only likely to be adequate for ensuring accurate M&V and compliance if strong penalties are imposed for non-compliance.

Government response

The PIAM&V guide will provide ACPs with guidance on how M&V can be applied to small projects including the appropriate methods, periods for measuring or estimating key parameters and sampling of sites and end use equipment.

Changes from the proposed Rule

The use of sampling and the requirements have been clarified (ESS Rule: §7A.2 and Equation 7A.5).

3.1.4 Greater ‘deeming’ of Energy Savings

Stakeholders strongly supported the increase in the number of years for which Energy Savings can be brought forward, or ‘deemed’, from five years under the PIA method to ten years under PIAM&V.

A number of ACPs and the Energy Efficiency Council (EEC) argued that many commercial and industrial projects have lifetimes over ten years. EEC suggested that:

“ACPs should be able to make a case for particular products being in use for more than 10 years (e.g. water treatment).”

Some ACPs were unsure how the persistence model would work and what information would be required.

Government response

Forward creation has been limited to 10 years. Beyond this outlook there are large uncertainties about whether equipment will still be in use.

Options for longer lifetimes will be assessed as part of a future Rule change (e.g. allowing longer lifetimes for specific facility types, heavily discounting savings beyond 10 years to account for uncertainty).

A persistence model will be made available to stakeholders before PIAM&V commences. The model is unlikely to require any additional information to what an ACP would be required already under PIAM&V.

3.1.5 Other issues raised by stakeholders

Top-up ESC creation for previous PIA Method projects

A number of ACPs recommended allowing for top-up of previous projects that previously used the PIA method. Sydney Water stated that this provides ongoing business confidence in the ESS and encourages investment in permanent energy savings initiatives in longer term.

Response: ACPs will be able to continue to create top-up ESCs for projects that previously used the PIA, and re-register for up to five years using PIAM&V. The Rule has been amended to clarify these transitional arrangements.

3.2 Better targeting of incentives for lighting upgrades

Proposal

ESS Rule: §9.4, Tables A9, A10.1, A10.2, A10.3 & A10.4

The NSW Government proposed to:

- revise savings factors for activities involving the replacement of 50W ELV halogen to set the baseline as energy consumption for a 35W ELV halogen reflector lamp
- specify performance testing requirements for all Emerging Lighting Technologies, to improve the quality of lighting upgrades through the ESS, with reference to performance requirements detailed in internationally accepted certification schemes (e.g. US ENERGY STAR and DesignLights) to ensure quality of lighting products
- accept registration of a product under a recognised certification regime as sufficient proof of product performance. Alternatively, a product may be tested against the same standards required by a recognised certification scheme in a National Association of Testing Authorities (NATA), Australia accredited laboratory. The Scheme Administrator will, from time to time, publish a list of recognised certification schemes for Emerging Lighting Technologies
- allow existing accepted products to be used for six months after the new Rule commences, after then they will be required to provide additional evidence to meet the new requirements
- exclude induction lighting products until an acceptable test standard or certification scheme has been developed
- exclude T5 Adaptors and Linear LED Adaptors from the ESS, and all other types of luminaire retrofits that modify parts of the Luminaire apart from the control gear and the lamps
- exclude Voltage Reduction Units from the ESS
- require all lighting upgrades to be supervised by a licensed electrician
- provide a list of default operating hours for different building types in order to reduce red tape for commercial lighting projects, based on activities previously accredited
- require that the end-user pays at least \$5 (ex. GST) per MWh of projected energy saved for lighting upgrades, to ensure that customers are engaged with the project to ensure the quality of the lighting is fit for purpose (e.g. that it meets the AS/NZS 1680 recommended minimums)
- have the Scheme Administrator publish a list of all accepted emerging lighting products so that each product only needs to be accepted once (this will only apply to new applications).

3.2.1 LED and T5 adaptor retrofits

Most ACPs did not support the removal of T5 adaptor kits and linear LED adaptor kits from the Commercial Lighting Formula. EECCA asserted that luminaire retrofits are a valid and effective source of energy savings and that their removal would significantly impact the take up of low cost energy saving measures. Other ACPs argued that blanket removal of LED retrofits will remove other types of retrofits (for example high bay lights) that do not have the same safety issues as LED tubes.

Some ACPs were concerned about the safety and quality of luminaire retrofits due to the potential to undermine customer confidence in energy efficient lighting and the ESS.

EECCA identified a number of proposed requirements for luminaire retrofits to ensure quality products are supplied under ESS:

- Permanence:
 - Complete the retrofit or modification according to Electrical Regulatory Authority Council's published guideline
 - Comply with AS/NZS 3000 - Wiring Rules
- Safety:
 - Licenced electrician to perform the works
 - Complete Certificate of Compliance Electrical Work issued by certified electrician under the installer Electrical Contractor Licence
- Warranty:
 - NSW Fair Trading workmanship warranty requirements

The University of NSW proposed that luminaire retrofits be made ineligible from the Deemed Energy Savings Method, and instead be eligible for the annual creation of energy savings certificates, subject to site audits. This will allow the low cost activities to remain in the scheme and ensure real energy savings.

In the event that luminaire retrofits are removed from the ESS some ACPs sought a six to eight week transition between the Gazettal and commencement of the Rule to allow the market to adjust.

Government response

Retrofit of existing luminaires with an adaptor kit is lower in cost than a complete luminaire replacement. However, there are significant concerns regarding the safety and quality of LED and T5 adaptor retrofits.

These concerns arise not only from the quality of products being installed, but the luminaires they are being installed into. These concerns are with the activity, not just their use under the Commercial Lighting Formula sub-method.

T5 Adaptor kit and LED tube retrofit activities will be explicitly excluded from being a Recognised Energy Savings Activity under the ESS. The commencement of the changes will take effect from 1 June 2014, as ACPs have been made aware of the Government's policy intent to remove these items since consultation commenced on 30 October 2013. ACPs will be given until 1 October 2014 to create ESCs for projects implemented on or before 31 May 2014.

The ESS will still recognise luminaire modification activities where an ACP rewires and modifies an existing luminaire to take an LED lamp. Under Electrical Regulatory Authorities Council (ERAC) guidelines the installer will need to take full responsibility for the safety and warranty of the luminaire as though it was a new product and they were the manufacturer.

Changes from the proposed Rule

Projects that use T5 Adaptors kits and Retrofit Luminaire - LED Linear Lamps are no longer Recognised Energy Savings Activities. Luminaire modification – LED Linear Lamp activities are still eligible (ESS Rule: § 5.4(d), Table A9.3 and Table A9.4).

3.2.2 Induction lighting

Most ACPs and the EECCA support the inclusion of induction lighting technologies. Some asserted that the current emerging lighting technologies approval test procedures for light output and electrical safety are comparable to LED technologies.

The EECCA identified that induction lighting performance should be managed through an independent NATA lab test to International Electrotechnical Commission standards (IEC 62639), with savings calculated on the basis of the specific lumens per watt for a given product.

Government response

Induction lighting will be included in the Rule. However this technology must meet performance requirements to be published by IPART.

Changes from the proposed Rule

Induction luminaires are included (ESS Rule: Table A9.3 and Table A9.4).

3.2.3 Voltage Reduction Units

Some ACPs argued that Voltage Reduction Units (VRUs) should be included in the Rule. They suggested that provided that the installation meets AS/NZS 1680 the outcomes can be better than a full T5 replacement. In addition, the NSW Government should require that all Voltage Reduction Units used in the ESS must meet performance testing standards.

Government response

VRUs will remain in the ESS as a control system that can be used in conjunction with specific classes of lighting equipment. Previous advice prepared for IPART in 2013 suggested the phase out of VRUs through a sunset clause or limiting deeming to 3 years. In reviewing advice on sunset clauses and asset lifetimes, the NSW Government has determined to reduce asset lifetimes for VRUs to 5 years. IPART will publish updated eligibility requirements and guidance on the use of VRUs as a control multiplier within the Commercial Lighting Formula.

Changes from the proposed Rule

VRUs can be used as a control device and will attract a control multiplier and an asset lifetime of five years (ESS Rule: Table A10.4 and Table A10.1).

3.2.4 Default operating hours

Most ACPs argued that default operating hours should either include activity types or more building types/sections of buildings and/or allow IPART to approve hours on a case by case basis if they fall well outside the default value. Examples with significantly longer hours than currently given are underground car parks, data centres, supermarkets with long opening hours, emergency lighting and fire stairs.

Government response

The purpose of expanding the range of default operating hours is to remove the administrative burden on IPART from assessing applications for extended operating hours. Allowing applications for extended operating hours would make the change redundant.

ACPs wanting to claim longer operating hours are encouraged to use PIAM&V to calculate Energy Savings.

Changes from the proposed Rule

A comprehensive list of operating hours for spaces and buildings types is now included (ESS Rule: Table A10.2 and A10.3).

3.2.5 Equipment requirements

Many stakeholders suggest that the current Emerging Lighting Technology test documentation requirements (Appendix D Table 1) and the verification of compliance with AS/NZS 1680 - Interior lighting is adequate for lighting performance.

However, EECCA suggested that enhancement of current product performance testing requirements will ensure quality luminaires are installed. For LED's, including LED tubes, this includes Energy Star or LM 80/TM 21.

One ACP suggested a requirement for suitably qualified lighting engineers to audit energy saving projects and declare compliance with AS/NZS 1680 for sites generating 1 000 or more ESCs.

Government response

Equipment requirements are critical to ensuring quality outcomes for customers and that Energy Savings persist for the assumed lifetimes used for deeming. If light quality is sub-optimal it is more likely that the customer will replace it before end of life. Without equipment standards there is no assurance that the product will last for the assumed lifetime.

IPART will publish performance requirements for lighting technologies that are not currently required to meet performance standards.

It may take some time to test lighting products based on new performance testing requirements. Where IPART has accepted the Lamp Circuit Power (LCP) value for a lighting product (eligible for a RESA under the new Rule) applied for by the ACP before 1 June 2014, the lighting product can be used until on or before 30 June 2015. After this date ACPs must show that the lighting product meets the new requirements.

Changes from the proposed Rule

Performance requirements will include but not be limited to lamp lifetime, lumen efficacy, electromagnetic compatibility (where applicable), power factor and lamp circuit power (ESS Rule: Table A9.4).

A 12 month transitional period has been allowed for previously accepted lighting products to be tested against new equipment requirements (ESS Rule: § 11.8).

3.3 Commercial equipment sub-method

Proposal

ESS Rule: §9.9, Schedule F

The NSW Government proposed to include the following standardised high efficiency technologies:

- refrigerated display cabinets
- liquid chilling packages
- close control air conditioners
- air conditioners

Where an activity is common to VEET, similar eligibility criteria apply. However, the lifetime energy savings estimates reflect the principles of ESS and so differ from VEET incentives.

Including these activities will help harmonise the ESS with the VEET scheme and increase the opportunities for businesses to save energy through simple calculation methods.

3.3.1 Commercial equipment sub-method

Stakeholders supported the proposed new commercial equipment sub-method as a means to provide robust, easy to use equations and factors to calculate energy savings from the installation of common business equipment.

The Australian Institute of Refrigeration Air Conditioning and Heating (AIRAH) suggested that the deemed methods are one of the most attractive approaches for industry, and should be used where possible. IPART asserted that the inclusion of standardised high efficiency technologies for businesses:

“...broadens the activities eligible for ESS, which provides scope to lower certificate costs. This allows the market to determine the most efficient - or least cost - means of creating certificates. Further, the administration and compliance of this method is likely to be straight forward.”

Government response

The range of activities available in this sub-method will be expanded over time, in consultation with industry. The role of this sub-method is to allow more streamlined access to the ESS for small projects that would be otherwise difficult to measure and verify.

With the introduction of PIAM&V, industry has been given the tools to develop proprietary energy models based on sampling that may achieve low transaction costs comparable with

the commercial equipment sub-method. It will be important that work to enhance the sub-method over time does not duplicate industry efforts or dampen the incentive to innovate.

3.3.2 New standardised technologies

A number of ACPs, EECCA and a product supplier identified the opportunity to include replacement of commercial refrigeration fans currently included as an activity under VEET.

Two ACPs suggested the testing and creation of deemed savings factors for particular technologies such as 'Plus5valve' and 'Aqualoc'.

AIRAH recommended that a Component Testing System Simulation (CTSS) method be used for including new HVAC products in the future, similar to the Australian Standard for Solar Heating and Cooling Systems (AS 5389).

Government response

It is appropriate to include replacement of commercial refrigeration fans as a deemed savings method. These fans are too small to be covered by Minimum Energy Performance Standards (MEPS) and there are significant energy savings from upgrading fans (up to 80%).

There is insufficient evidence to include 'Plus5valve' and 'Aqualoc' technologies as deemed savings methods. Industry is encouraged to investigate using the PIAM&V method to create ECSs for these and other new technologies based on proprietary energy models.

Changes from the proposed Rule

The ESS Rule has been amended to include commercial refrigeration motor and fan upgrades (ESS Rule: Activity Definition F5 of Schedule F).

3.3.3 Alignment of activities with the Victorian Energy Efficiency Target (VEET) Scheme

EECCA identified the need for eligibility criteria to be aligned in the ESS and VEET to allow consistent business processes and as a transitional step towards a potential national energy efficiency scheme. EECCA considered that for activities where savings are influenced by climate, it is appropriate to have different default savings factors for different climate zones.

Government response

Eligibility, equipment and implementation requirements for these activities have been aligned with the VEET scheme wherever possible.

In some cases, different savings factors are appropriate between schemes as there are differences in climate zones, approaches to additionality and principles for ensuring that calculations are accurate.

3.4 Small business energy efficiency retrofits

Proposals

Small Business Retrofit

(Refer draft ESS Rule: §9.8, Schedule D, Schedule E)

The NSW Government proposed to allow small businesses to access incentives, applicable to the building type they operate in, using the Home Energy Efficiency Retrofits method (Schedules D and E). Businesses tend to use equipment more frequently than households, however this leads to lower lifetimes, so the same lifetime energy savings have been assumed for small businesses as for households.

Aggregated Metered Baseline sub-method

(Refer draft ESS Rule: §8.9)

As with households, there are many actions that small business can take that are not appropriate for deemed ESC creation because the savings vary too greatly from site to site or there is too much uncertainty over how long the savings will last. The NSW Government proposed a new “Aggregated Metered Baseline Method” allows savings to be statistically measured across multiple sites using experimental design principles. This method was drafted in a way to allow proponents to also use it for small businesses, if they can statistically demonstrate savings for their programs across multiple sites.

3.4.1 Small Business Retrofit

A number of stakeholders agreed that energy savings factors for small businesses should be different from those for households. It was recommended that energy savings factors be modified to include default operating hours, similar to those under the commercial lighting formula, as small business operating hours are different from residential.

Government response

The need for alternative factors for small businesses will be investigated as part of future Rule changes.

Changes from the proposed Rule

The definition of a small business site has been clarified (ESS Rule: §10.1).

3.4.2 Aggregated Metered Baseline sub-method

There were no concerns raised by stakeholders over the proposal to allow Energy Savings in non-residential buildings to be calculated using the Aggregated Metered Baseline Method.

Government response

The Aggregated Metered Baseline sub-method provides a rigorous statistical framework for calculating energy savings. It has been designed to be used by programs involving households or businesses, as long as the energy savings can be statistically proven using the calculation method.

3.5 NABERS Baseline sub-method

Proposal

ESS Rule: §8.8, Tables A20, A21 & A22

The NSW Government proposed to simplify the NABERS Baseline Method by using the NABERS Reverse Calculator to compare a building's current rating with either an historical rating or a benchmark rating. This new approach models what would have happened without the energy savings activity, by estimating electricity consumption for a building with the same configuration and fuel mix (electricity and gas) as the current rated building. The only difference is the star rating (either historical or benchmark). This is simpler and more accurate than the old approach.

In addition:

- the market will be segmented by calculation method and building type, to allow ESS incentives to be targeted at the market to drive change
- only buildings in the top 15%-25% of each segment will receive an incentive by introducing a threshold NABERS rating
- there is no distinction between new and existing buildings - each building can create ESCs either against a baseline (for one-off retrofits) or a benchmark (for continuous improvement)
- baselines and benchmarks increase over time to drive continual, additional change
- the method will include buildings rated under the new NABERS for Data Centres tool.

3.5.1 Threshold NABERS rating

Several stakeholders did not support the introduction of threshold ratings below which a building could not use the NABERS Baseline sub-method. The Property Council of Australia stated that:

"[t]his would be an inequitable imposition on the property industry, which applies to no other sector...[E]nergy efficiency initiatives within the property industry would decline without access to the ESS incentive."

Government response

The proposed threshold rating may exclude incremental improvement in buildings with low NABERS Ratings (e.g. moving from 1 star to 3 stars).

This is undesirable so the proposal is not supported. However it will be important to ensure that Energy Savings are significant and result from genuine activity.

Changes from the proposed Rule

The concept of threshold rating has been replaced by a requirement that NABERS Ratings must be one star above the historical baseline or default benchmark, whichever is used to create ESCs (ESS Rule: § 8.8.1(c)).

3.5.2 Default benchmark NABERS ratings for different building types

Stakeholders were generally supportive of the proposal for benchmark ratings based on the average energy use by building grade so that performance above this level could be used to create ESCs. EECCA and ICANZ supported the improvements, stating that the proposal provided a simple effective and flexible approach.

The Property Council of Australia suggested that there is a need for energy savings initiatives across the built environment, and in particular within B, C and D grade buildings. It asserts that lower grade buildings suffer from the most significant market failures and require financial incentives to overcome them.

Government response

Benchmark ratings for buildings based on current market average ratings is consistent with the treatment of high efficiency appliances. The proposal will enable building owners to be rewarded for improving their performance even if they have not collected baseline information.

Minimum energy efficiency standards for commercial buildings were introduced in 2006 under the Building Code of Australia. Benchmarks need to distinguish between buildings constructed before and after the introduction of these standards to ensure the ESS rewards energy savings additional to the Building code of Australia.

Building grades are in part determined by NABERS ratings, so providing benchmarks for different building grades is not appropriate.

Changes from the proposed Rule

The proposed benchmarks have been updated to reflect the market average ratings for offices, hotels, shopping centres and data centres built before and after 2006 (ESS Rule: Table A20 of Schedule A).

3.5.3 Resetting baselines and continuous improvement

There was a mixed response from stakeholders in relation to the proposal to reset NABERS baseline after three years and an annual increase to baselines. Some ACPs and commercial property owners suggested that the proposal would be difficult to apply and would result in fewer building owners participating in the ESS.

An ACP suggested either keeping the current 'locked baseline' for existing buildings, or providing some mechanism to claim savings upfront using the NABERS Baseline Method to keep it comparable with other methods.

The City of Sydney suggested that the proposed approach to increase baselines and benchmarks over time to drive continual change would encourage energy savings particularly for the mid-tier commercial office sector.

An ACP made an alternative suggestion to increase the baseline rating year to ten years to recognise the lifetime of various upgrades in calculating the benchmark NABERS rating.

Government response

It is important that the ESS drives continuous improvement in the commercial buildings sector. Analysis of existing buildings accessing the ESS has indicated that the commercial buildings have improved by a full NABERS star over a period of around seven years. The age limit on baselines and adjustment factor will be amended reflect this time period.

The PIAM&V method enables building upgrades to forward create ESCs. This method can be used with similar information (electricity bills and a site inspection) required to use the NABERS baseline sub-method.

Changes from the proposed Rule

Baselines can be up to seven years old and have an annual adjustment of 0.15 stars (ESS Rule: § 8.8 Method 4c Step 2, and Table A21 of Schedule A).

3.5.4 Other issues raised by stakeholders

An ACP requested that the Rule clarify that all ratings are without GreenPower purchases and that NABERS ratings need to be adjusted for on-site generation.

Response: These issues have been clarified in the Rule (ESS Rule: § 8.8 Method 4c).

3.6 Power Factor Correction sub-method

Proposal

ESS Rule: §9.6

The NSW Government proposed to update the Power Factor Correction Energy Savings Formula in the ESS Rule to account for sites with existing loads having power factor greater than 0.9. The changes also update some of the assumptions that lead to factors or terms in the formula. The formula assumes that energy will be saved by avoiding line losses on the distribution network between the transmission network and the site's connection point.

3.6.1 Change to the Power Factor Correction Energy Savings Formula

The EECCA suggested that the amendments to Power Factor Correction factors do not substantively alter the current arrangements. EECCA stated that the recognised savings for Power Factor Correction projects are very low and the method is likely to remain unutilised.

An ACP suggested that the 'Initial Power Factor' should be able to be measured and not restricted to the 0.9 minimum standard. The ACP also suggested the 'annual operating hours' be increased from 1750 hours to 3000 or even 8760 hours in line with typical operations of a commercial site.

Government response

There is no change to the proposed amendments to the Power Factor Correction Energy Savings Formula following consultation. While it is recognised the method remains underutilised to date, ACPs can use an alternative methods to calculate energy savings such as PIAM&V if they wish to prove Energy Savings beyond the more conservative calculations provided through the off-the-shelf Deemed Energy Savings Method.

Changes from the proposed Rule

Minor changes have been made to Power Factor Correction Energy Savings Formula to improve the clarity of the method (ESS Rule: § 9.6).

4 General improvements

4.1 A simpler 'nomination' process

Proposal

ESS Rule: §5.2

The NSW Government proposed to modify the ESS Rule to improve the nomination process by allocating the role of the original Energy Saver for each method to the person generally best placed to ensure that an Energy Savings project goes ahead. Where the original Energy Saver chooses not to become an ACP, they can nominate an ACP to become the Energy Saver and create ESCs for the project on their behalf.

Further, it was proposed that the concept of 'chain of nomination' is removed from the ESS Rule, in order to simplify the nomination process and reduce the possibility of two ACPs claiming to be the nominated Energy Saver for the same energy savings project.

4.1.1 Simplification of Original Energy Saver

A number of ACPs support the proposal and consider that the proposed simplifications of Energy Savers are optimal for each method. The Energy Efficiency Certificate Creators Association (EECCA) considers that:

"[t]he streamlining of nomination processes will help reduce the administrative costs associated with the Scheme. Standardisation of nomination forms will also help reduce unnecessary accreditation and compliance costs."

EECCA suggested that standardisation of nomination forms will help reduce unnecessary accreditation and compliance costs.

Government response

Actions to standardise nomination processes will help reduce red tape and will work with IPART to streamline these processes.

4.1.2 Chain of nomination

An ACP expressed concern that removing the concept of 'chain of nomination' could create difficulties with business models where the ACP is not the 'Original' Energy Saver.

Government response

'Original' Energy Savers can still nominate an ACP to be the Energy Saver. Businesses can adapt to this change by providing subcontractors with a nomination form to get 'Original' Energy Savers to nominate the ACP directly (rather than nominate subcontractor, who then re-nominates to ACP).

4.2 Additionality

Proposal

ESS Rule: §6.2

The NSW Government proposed to improve confidence that ESC creation reflects additional energy savings by requiring that every ACP has secured the legal right to create ESCs at the time a project is implemented.

This means that ACPs can quote for services taking into account certain ESC revenue. The legal right is established in two ways:

- 1 the ACP must be accredited prior to implementation
- 2 if a nomination form is required, it must be signed prior to implementation.

4.2.1 Accreditation required before implementation

IPART supported the proposed amendment as it could result in reduced compliance costs arising from auditors and the scheme administrator when dealing with incomplete documentation to support ESC creation.

Energy Australia opposed the requirement for an ACP to be accredited prior to a project being implemented. It was argued that a prospective ACP may be forced to be inactive for a considerable period of time while their application is processed.

Government response

If an ACP is not accredited for a particular activity, they cannot be confident of the accreditation conditions that will apply, what information they need to collect or whether they will be able to create ESCs. Therefore it is highly unlikely that the ESC revenue will be factored into the customer's decision to undertake the project.

It will be important for industry and IPART to develop arrangements that avoid extended application processing times while managing compliance. This could include provisional accreditations with pre-registration audits before any ESCs are created.

4.2.2 Nomination before implementation

An ACP queried how suitable this requirement is for projects under the Metered Baseline Methods where measurements are made year on year and there is no clear start date to the project as multiple energy efficiency projects may be implemented over a period of time.

Two ACPs raised concerns that if the nomination requirement is applied retrospectively then no ESCs can be created from implemented projects where data collection is underway in line with Previous Rule but no ESCs have yet been created. It was proposed that the new requirements only apply to projects implemented after the new Rule commences.

Government response

The concept of the Implementation Date is key to understanding when a nomination form must be signed. For annual creation methods this date is typically the start date of the first measurement period or the date on which Energy Savings from a project first occur. This will meet an objective across all calculation methods to have greater certainty that ESC revenue can be factored into a customer's business case before a project is implemented.

This requirement will not apply retrospectively so as not to negatively impact on businesses that have acted in good faith.

Changes from the proposed Rule

Transitional arrangements have been drafted to ensure the changes do not apply to projects implemented prior to the commencement of the new Rule (ESS Rule: § 11).

4.3 Transitional arrangements

Proposal

(Refer draft ESS Rule: §1.3, §1.4)

The NSW Government proposed the following timeframes to apply for transition of RESAs to the new Rule (times are from the commencement of the new Rule):

- Project Impact Assessment Method - no new RESAs may be accredited under the existing method. New implementations are allowed for 12 months. Top-up ESCs for previous implementations are allowed until exhausted. Existing RESAs must amend accreditation within 12 months to the PIA M&V
- Metered Baseline Method - no transition required
- NABERS Baseline Method - existing buildings may continue to use their current ratings baseline if it meets the new criteria, otherwise they will need to provide a new baseline rating
- Deemed Energy Savings Method - all RESAs must meet new requirements for ESC creation upon commencement of the Rule; in some cases this may require minor amendment to prior accreditation before ESCs can be created
- If ESCs are created after commencement of the new Rule for implementations completed prior to the Rule's commencement, any previous nomination is valid, but ESCs must be calculated under the new Rule.
- ESCs cannot be created if the method or project is no longer eligible under the new Rule once it commences.
- Accreditations for one-for-one light replacement (formerly Tables 1-3) will cease; in future all lighting retrofits are to be conducted as part of a Home Energy Efficiency Retrofit or the Commercial Lighting Formula.

4.3.1 Stakeholder comments

Many ACPs recommended longer transitional periods to allow ESC creation on projects that are in various stages of implementation but not completed.

Maxee Innovations, an ACP, identified that, without extending the transitional period:

“Rule changes would leave us significantly exposed to commercial loss should certain proposed changes come into effect without the appropriate time allowed to make alternative arrangements...for any commercial contracts.”

In particular, some ACPs emphasised that transitional arrangements for PIA accreditations should be extended to include projects where a valid RESA application has been lodged but not yet approved at the time of the new Rule commencing.

Government response

Adequate arrangements need to be in place to enable an orderly transition from the Previous Rule to the new Rule. This includes ACPs who have applied for accreditation in the time between consultation and the new Rule commencing.

IPART has published information sheets on how the transition will occur to assist ACPs understand the transitional arrangements and how they are affected.

Changes from the proposed Rule

Transitional arrangements now include a three month window to calculate energy savings under the Previous Rule and to give longer term flexibility to projects using annual creation methods (PIA and MBM). These arrangements include ACPs who have applied for a RESA but it has not yet been granted. These arrangements are now in a standalone clause (ESS Rule: § 11).

4.4 Recognised energy saving activities

Proposal

ESS Rule: §5.4

The NSW Government proposed to clarify that a RESA does not include:

- activities carried out as part of statutory or regulatory compliance
- activities that reduce metered electricity consumption by reducing service levels
- activities that reduce electricity consumption through onsite electricity generation or by consuming non-renewable energy (e.g. gas) to provide the same service
- activities that reduce electricity consumption and are eligible to create tradeable certificates under the Renewable Energy Target or other schemes.

Stakeholders generally supported clarification to clause 5.4 that a RESA does not include activities associated with regulatory compliance.

EECCA argued that the Rule must clearly prevent electricity network service providers from claiming ESCs for activities that are funded through pricing determinations unless they are beyond that which would have passed a regulatory test.

Stakeholders at the public consultation forum questioned whether electricity generated through heat recovery from a process fuelled by electricity would be eligible.

Government response

The Rule should explicitly exclude the creation of ESCs from Network Service Provider projects that would have passed a regulatory investment test without ESC revenue.

Heat recovery from process fuelled by electricity is eligible as long as the electricity generated is used to deliver the same end user service. This is the same for other types of electricity recovery such as regenerative braking.

Changes from the proposed Rule

The Rule now explicitly excludes the creation of ESCs from Network Service Provider projects that would otherwise have passed a regulatory investment test. The Rule also includes a note to clarify the treatment of electricity recovered from an electricity fuelled process (ESS Rule: § 5.4 (c) and note after 5.4 (f)).

4.5 Streamlined ESC creation and analysis

Proposal

ESS Rule: §6.8, §6.9, Table A17, Table A18

The NSW Government proposed that each ACP would be required to provide basic data about the implementations of an activity at various sites prior to registering ESCs. IPART can then validate that data to ensure it is in the correct format before allowing the ACP to create those ESCs.

Validation would ensure that the data is in the correct form, and that the ACP is creating a valid number of ESCs for the activity. Validation does not replace auditing.

Proposed activity data requirements for each Implementation at a Site include:

- | | |
|---|---|
| 1 the ACP | 5 the Energy Savings |
| 2 the RESA | 6 the cost to the Purchaser |
| 3 the address or another Site identifier | 7 the end user service |
| 4 the Implementation Date | 8 the business classification (if known) |

The Rule includes lookup tables for business classifications and end-uses, to standardise the process. IPART will provide a template spreadsheet for ACPs to complete.

The provision of this data in a standard form will also allow for enhanced reporting by the

Scheme Administrator and improved analysis by the NSW Government in further developing and streamlining the ESS.

4.5.1 Implementation data

A number of ACPs and the EECCA supported streamlining the ESC creation and analysis process. Green Energy Trading suggested a number of ways this data could be used or enhanced including:

- perform duplication and validation checks in real-time rather than quarterly
- additional fields to record whether a householder is a concession card holder so that participation of low income households can be assessed
- quarterly release of aggregate information collected (as done in Victoria).

IPART did not support collecting this data in its role as Scheme Administrator given their resourcing and data collection powers.

Government response

The Regulation already requires ACPs to keep records for the majority of this information for a minimum of six years.

This data will assist industry with better information on market opportunities. It will also assist the NSW Government with better information on activity under the ESS to identify future areas for policy development or supplementary programs.

4.5.2 Other issues raised by stakeholders

One ACP did not support adding a further validation step to be conducted by the Scheme Administrator. They argued that ACPs are currently subject to extensive compliance through the audit process and this step would not add any value to the compliance process. It was suggested that this stage be included as a reporting step to keep the Scheme Administrator informed of installations.

Response: The data provided will not be used as a second auditing and compliance system. However, the information may allow IPART to be more targeted in their compliance practices.

4.6 New timing for regular Scheme amendments

Proposal

The NSW Government proposed to have a stated policy intention to make annual adjustments to the ESS Rule. Although it would not be incorporated into the ESS Rule or a regulatory requirement, the Government would work towards an indicative annual schedule.

4.6.1 Annual timetable

Most industry stakeholders and peak bodies supported annual adjustments to the ESS Rule. EECCA stated:

“[t]he current lack of certainty over if or when the Rule will be amended, and at what notice if any, results in significant risk being priced in to ESC trades. An annual timetable and clear guidelines about how and why the Rule will change, will allow better planning of investment decisions and more efficient pricing in the scheme.”

Some ACPs were concerned that regular changes will have a negative impact on the market by creating uncertainty.

Government response

Future changes to the Rule on an annual basis are likely to be minor updates. Providing for an annual timetable will be considered in the broader Review of the Energy Savings Scheme.

4.6.2 Other issues raised by stakeholders

A number of ACPs requested Government be transparent with the method by which Default Savings Factors are calculated to allow industry to better anticipate changes and develop new proposals.

Response: The feasibility of publishing the calculation of default savings factors and any measurement and verification of actual energy savings will be investigated.

4.7 ‘Fit and Proper Person’ requirement for ACPs

IPART requested the NSW Government introduce a ‘fit and proper person’ criterion in order to be accredited as an ACP. The additional criterion increases the level of rigour available to IPART in assessing ACP applications and deciding on whether to accredit an applicant under the ESS.

This additional requirement aims to protect the ESS from improper persons and allows IPART to consider an applicant’s standard of honesty and integrity shown in their (or their associate’s) previous commercial dealings.

Government response

The additional criterion has been included in the Rule. The clause is similar to eligibility criterion for retailer authorisations under the *National Energy Retail Law* (ESS Rule: § 5.6, 5.7 and 5.8).

Stakeholders who made submissions

Stakeholder
AGL
Ashfield Council
Association of Building Sustainability Assessors
Australian Institute of Refrigeration Air Conditioning and Heating (AIRAH)
Burwood Council
Byrne, Mark (Individual)
Caltex
Carbon Reduction Industries
Carinda
Cessnock City Council
City of Canada Bay
City of Canterbury
City of Ryde
City of Sydney
Clean Energy Council
Cool Planet
Council of Social Service of NSW (NCOSS)
CSR
Demand Manager
Easy Being Green
EBM-PAPST
Eco Living Centre
Efficiency Matters
Electus Distribution/Jaycar Electronics
Energy Australia
Energy Cost Attack
Energy Efficiency Certificate Creators Association (EECCA)
Energy Efficiency Council (EEC)
Energy Makeovers
Energy Supply Association of Australia
enLighten Australia
Envestra
Fieldforce
Green Building Council Australia
Green Energy Trading
Green Guys Group
Green Moola
Greenbank
Hunters Hill Council
IEQ Australia
Independent Regulatory and Pricing Tribunal (IPART)

Stakeholder

Insulation Council of Australia and New Zealand (ICANZ)
Kiama Municipal Council
Knauf Insulation
Kogarah City Council
Ku-ring-gai Council
Lane Cove Council
Lifetime Light
Low Energy Supplies and Services
Lowa Group
Master Electricians Australia
Maxee Innovations
MaxiBright
Minus40
Munters / Ilum-a-Lite
National Carbon Bank of Australia
Ncon
Next Energy
Norske Skog
Office of the NSW Small Business Commissioner
Opower
Out Performers
Pittwater Council
Property Council of Australia
Public Interest Advocacy Centre
Rockdale City Council
Salmon Bros
Shellharbour City Council
Southern Sydney Regional Organisation of Councils
Sydney Water
Total Environment Centre
University of New South Wales
University of Technology Sydney Institute for Sustainable Futures (ISF)
Versace LED Low Energy
Viribright Lighting
Water Heater Research
Watt Solutions
Watts Clever
Watts Green
Willoughby City Council
Winning Group
Woolworths

Glossary

Acronym	Definition
ACP	Accredited Certificate Provider
AEMO	Australian Energy Market Operator
AMB	Aggregated Metered Baseline sub-method
ANZIC	Australia and New Zealand Industry Classification
AS	Australian Standard
CLF	Commercial Lighting Formula sub-method
ELV	Extra Low Voltage
ESC	Energy Savings Certificate
ESS	Energy Savings Scheme
GST	Goods and Services Tax
GWh	Gigawatt hours
HEER	Home Energy Efficiency Retrofits sub-method
HVAC	Heating, Ventilation and Air Conditioning
IPART	Independent Pricing and Regulatory Tribunal of New South Wales
IPMVP	International Performance Measurement and Verification Protocol
LED	Light Emitting Diode
M&V	Measurement and Verification
MEPS	Minimum Energy Performance Standards
MWh	Megawatt hour
NABERS	National Australian Built Environment Rating System
NATA	National Association of Testing Authorities
NSW	New South Wales
PFC	Power Factor Correction
PIA	Project Impact Assessment Method
PIAM&V	Project Impact Assessment with Measurement and Verification Method
RESA	Recognised Energy Saving Activity
SRES	Small-scale Renewable Energy Scheme
US	United States of America
VEET	Victorian Energy Efficiency Target