IPART

Independent Pricing and Regulatory Tribunal
New South Wales

Audit Scope

Accredited Certificate Providers

Energy Savings Scheme

October 2017

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Document Control

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Previous	Audit Scope - Audit of Accreditation Conditions	January 2011
V3.1	Audit Scope: Commercial Lighting Audit of Accreditation Conditions	December 2012
V2.0	Release of consolidated audit scope	November 2015
V3.0	Updated in response to amendments made to the ESS Rule on 15 April 2016	August 2016
V3.1	Additional scope items for the PIAM&V Method in Appendix D.	November 2016
V3.2	Additional scope items for the Home Energy Efficiency Retrofits Method in Appendix G.	February 2017
V3.3	Updated to reflect amendments to the ESS Rule that commenced on 28 April 2017 including addition of Appendices C and I	October 2017

Contents

1 Introduction

The Energy Savings Scheme (**ESS**) reduces electricity consumption in NSW by creating financial incentives for organisations to invest in energy savings projects. Energy savings are achieved by Accredited Certificate Providers (**ACPs**) installing, improving or replacing energy savings equipment. Companies that become ACPs can create Energy Savings Certificates (**ESCs**) by carrying out these activities. They can then sell those ESCs to Scheme Participants, who have an obligation under the ESS to meet energy savings targets (which can be met by purchasing and surrendering ESCs).

The Independent Pricing and Regulatory Tribunal of NSW (**IPART**) is both the Scheme Administrator and Scheme Regulator of the ESS.

A key element of our approach to managing compliance is requiring audits to be undertaken to verify the validity of ESCs created by ACPs as well ensuring Scheme Participants comply with their individual energy savings targets each year.

This document is provided to assist members of the ESS Audit Services Panel to prepare a Detailed Scope of Works (**DSW**) for an audit of the creation, or proposed creation, of ESCs by an ACP. It also provides guidance on the types of procedures that should be undertaken by auditors in conducting these audits. This document should be read in conjunction with the *Compliance and Performance Monitoring Strategy*[1] (**CPMS**) and the *Audit Guideline*.[2]

2 Preparing a Detailed Scope of Works

2.1 Overview of DSW requirements

In preparing for an audit, you should consider the information provided in the CPMS and *Audit Guideline*.

Auditors will also need to refer to the relevant method guide and evidence manual (if applicable) for the particular method. Copies of these documents are available on the ESS website.[3]

When conducting a reasonable assurance audit engagement, the auditor must conduct sufficient procedures to enable them to form an opinion on the matters being audited. Notwithstanding that, this document outlines the **minimum** requirements to be addressed in the DSW.

The DSW (and attachments) should be submitted by the auditor electronically to IPART via the ESS Portal.[4] We review the DSW to ensure it adequately covers the scope of the

1 Refer: www.ess.nsw.gov.au/Audits_and_Compliance/Join_the_audit_panel
2 Refer: www.ess.nsw.gov.au/Audits_and_Compliance/Audit_and_compliance_guides
3 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings

particular audit and addresses any issues we think need specific audit attention, including any issues from previous audits. We undertake to review a DSW within 10 business days. The 10 business day timeframe is restarted every time an auditor submits a revised DSW (and Deed Poll if required) n response to our feedback. Once the DSW is finalised, we notify the auditor they can proceed with the audit. If we cannot meet the 10 business day deadline, we will notify the ACP and auditor of the delay.

In some cases, we may not accept a DSW from a particular auditor. For example, if a conflict of interest arises (see section 2.11). We may also, on occasion, request additional audit scope items be included in the DSW.

The DSW needs to be approved by IPART before audit services commence. Any changes to the audit scope must be reflected in an updated DSW and be approved by IPART prior to continuing the audit.

The contents of the DSW must include the information outlined in Table 2.1 below. More information is provided in the following sections.

Table 2.1 Contents of DSW

Section	Contents
DSW cover sheet	A template is provided in Appendix A of this document.
Audit Scope	This should cover ESC calculations, record keeping, special Accreditation Conditions, additional audit requirements, and method specific requirements (refer section 2.2 for more details).
Procedures/Tasks	Outline the audit procedures to be conducted for the above scope items.
Audit Principles	A reasonable assurance audit is conducted in accordance with an appropriate standard. The auditor must acknowledge the standard applied to conduct the audit.
Timing	The audit plan is to outline the various stages of the audit, and identify start and end date. It is understood that all timeframes are subject to change (in consultation with IPART).
Resourcing	All key personnel that participate in the audit must be identified, and their roles and relevant experience must be specified.
Quote/Cost	The audit should be based on a fixed price quote prepared in accordance with the terms of the Audit Services Panel Agreement, with the costs of any external contractors included.
Sampling plan	If the audit includes multiple sites, a tiered approach to sampling may be required to allow different audit procedures to be applied to different sized samples. If so, a sampling plan must be included, explaining the proposed approach to sampling for each of the different tiers.
Schedule of Sites	A list of sites included in the audit must be provided with the DSW which shows the applicable tier for each site. **If the audit requires the identification of sites for sampling, the site selection must not be shared with the ACP until the auditor has received approval from IPART to commence the audit.**
Deed Poll	A tripartite agreement that sets IPART as the client for the audit no matter who is engaging the auditor.
Deed Poll Signatory Authority	Deed Poll Signatory Authority to sign (eg, ASIC extract or letter of authority as relevant).

4 A guide for auditors to use the ESS Portal is available here: www.ess.nsw.gov.au/ESS_Portal

2.2 Audit scope

The following items are matters to be included in the audit scope:

- method eligibility
- the calculation of energy savings and subsequent creation of ESCs
- compliance with any particular accreditation conditions
- compliance with the record keeping requirements, and
- any additional audit requirements (if required).

2.2.1 Method eligibility

The auditor is required to provide an opinion on whether the RESA has been implemented in accordance with the RESA requirements of the *Energy Savings Scheme Rule of 2009* (**ESS Rule**).

2.2.2 Energy savings calculations and ESC creation

The auditor is required to provide an opinion on whether the energy savings and the number of ESCs created (registered or proposed to be registered) for the period covered by the audit have been calculated in accordance with:

- the *Electricity Supply Act 1995* (**Act**)
- the *Electricity Supply (General) Regulation 2014* (**Regulation**)
- the ESS Rule, and
- the Accreditation Conditions of the particular accreditation.

Once the DSW is lodged with IPART, in general, the scope of the audit cannot be changed by any party. This means that the ESCs identified as being subject to the audit cannot be changed once the DSW is submitted to IPART.

If the auditor believes that the energy savings, or total number of ESCs, have not been calculated (in all material respects) in accordance with the requirements then they should propose revised figures for the total energy savings and number of valid ESCs that can be created for that RESA.

2.2.3 Accreditation conditions

The auditor is required to review the ACP's compliance with any special conditions contained in the relevant Accreditation Notice.

2.2.4 Record keeping

The auditor is required to review the ACP's records and record keeping arrangements against the following:

- the requirements of clause 46 of the Regulation (refer below)
- consistency with relevant guidance published by the Scheme Administrator (ie, the Record Keeping Guide[5] and Method Guide or Evidence Manual (as applicable) for the relevant method)
- adequacy of the arrangements to support the creation of ESCs, and
- adequacy of the arrangements to demonstrate the ACP's ability to achieve ongoing compliance with the legislation and their Accreditation Notice in order to properly create ESCs.

The minimum required records outlined in the guidance should be sufficient to satisfy an auditor in most circumstances. However, in some cases, IPART (or the auditor) may form an opinion that the minimum required records are not sufficient. In such cases, the audit may be expanded to include additional records; this may occur as part of the standard audit process or an audit variation. Auditors should contact IPART before requesting additional information from an ACP.

In some cases, IPART may also request the additional information from the ACP or a relevant third party using its statutory powers. This may occur within or outside the audit process.

Box 2.1 Electricity Supply (General) Regulation 2014 – Clause 46

46 Record keeping

(1) An accredited certificate provider in respect of a recognised energy saving activity must keep a record of the following:

(a) the location in which the activity occurred,

(b) the energy savings (calculated in accordance with the scheme rules) arising from that activity,

(c) the methodology, data and assumptions used to calculate those energy savings.

(2) An accredited certificate provider must keep any other records that the Scheme Administrator, by notice in writing to the accredited certificate provider, requires the accredited certificate provider to keep.

(3) A record required to be kept by a person by or under this clause must be retained by the person for at least 6 years after the record is made.

(4) Records are to be kept in a form and manner approved by the Scheme Administrator.

2.2.5 Additional audit requirements

The following should also be included as unique scope items if applicable (as determined by the auditor by reference to relevant documentation and the nature of the matters being audited):

5 Refer: www.ess.nsw.gov.au/Accredited_Certificate_Providers/Record_keeping_arrangements

- compliance with the insurance requirements in accordance with clause 16 of the Accreditation Notice and item 7 of the Schedule to the Accreditation Notice
- outstanding recommendations from previous audit reports
- compliance with the data provision requirements laid out in clause 6.8 of the ESS Rule for ESCs registered on or after 1 July 2014 (ie, the ESC data submission form was provided to the Scheme Administrator) and confirm that the ACP received an ESC Registration Reference Number
- confirmation that the RESA does not result in decreased service levels and that the ACP has procedures to adequately account for any reduction in service levels after the RESA has been implemented
- if the ACP is operating as a nominated Energy Saver, the auditor must:
  - check compliance with clause 6.2 of the ESS Rule for implementations completed on or after 1 July 2014 (ie, that the ACP was nominated by the original energy saver before the implementation took place and that the implementation date is after the ACP's accreditation date)[6]
  - review the customer engagement process and its implementation (as outlined in the ACP's Application for Accreditation, Accreditation Notice)
  - review the validity of Nomination Forms (or a sample as appropriate)
- any method specific scope items set out in the appendices of this document, and
- any other audit requirements specified by IPART.

2.3 Audit procedures

The audit procedures undertaken should be determined using the auditor's professional judgement in regard to what will enable them to gather sufficient evidence to support their opinion(s) in relation to the matters being audited. These procedures should be identified in the DSW.

A list of typical audit procedures has been developed to assist auditors in this regard and is included below.

2.3.1 Typical audit procedures

The following are typical audit procedures that would normally be undertaken by the auditor:

- information/document gathering
- review of the business model, project plan and RESA implementation and management processes
- comparison of approved project details (in Accreditation Notice) to the ACP's project documentation
- site visit to administrative offices to discuss the accreditation and hold interviews with personnel in relation to systems, procedures, controls and quality assurance activities

6 Note that some exemptions apply in clause 11 of the ESS Rule.

- review of relevant internal procedures (customer quotes, installations, etc)
- review of information systems with regard to design and operation of internal system controls and design of queries and calculation formulae which are used to generate information
- developing and implementing a sampling plan for multi-site RESAs to test the validity of source data and any assumptions used to support the creation of ESCs (eg, evidence of implementation date, tax invoices, sales ledgers, inspect/reconcile products and equipment)
- re-performance of calculations to confirm they are fairly presented
- inspection of products or equipment to confirm number and type correspond to ESC creation such as through stock reconciliation
- review of Quality Assurance (**QA**) procedures and other related control mechanisms and processes
- check of the ESS Registry[7] and implementation data submissions to confirm any ESCs registered (or proposed to be registered) are consistent with the audited eligible ESCs and that the required data has been provided, and
- review of arrangements for programs delivered through third parties, as specified in the *ESS Notice 01/2013 - Minimum requirements for conduct of persons acting on behalf of Accredited Certificate Providers*[8]. This may require an examination of:
  - contractual relationship between ACP and installers
  - training of installers
  - register of installers, and
  - documented customer service procedures.

2.3.2 Method specific requirements

There are a number of specific audit requirements that IPART has developed in relation to particular methods. These specific audit requirements have been included in the Appendices of this document.

The auditor should refer to these when scoping the audit and ensure that adequate resources are allocated to meet these requirements to the satisfaction of IPART. It is not necessary to list these specific audit requirements in the DSW but the auditor should detail how they intend to meet the specific audit requirements detailed in the Appendices in the proposed audit.

2.3.3 Amendments to the ESS Rule

Amendments to the ESS Rule commenced on 28 April 2017. A fact sheet summarising the key amendments can be found on the ESS website.[9]

7 Access to ESS Registry information is normally arranged in consultation with the ACP.

8 ESS Notice 01/2013 Minimum requirements for conduct of persons acting on behalf of Accredited Certificate Providers, available here: www.ess.nsw.gov.au/Events_and_Updates/ESS_Notices, amended on 24 July 2014.

9 Refer: www.ess.nsw.gov.au/How_the_scheme_works/Scheme_changes

All activities implemented on or after 28 April 2017 must comply with the requirements of the current ESS Rule. Clause 11.1 of the ESS Rule, however, allows for transitional arrangements whereby ACPs can choose to calculate energy savings using either the previous or current version of the ESS Rule, if the following conditions are met:

- the implementation date is before 28 April 2017
- no previous applications to register ESCs from the relevant implementation were made prior to 28 April 2017, and
- an application to register ESCs was made on or before 30 June 2017.

2.3.4 Inclusion of gas

Since 15 April 2016, the following calculation methods have included gas saving activities:

- Project Impact Assessment with Measurement and Verification (**PIAM&V**) method (clause 7A of the ESS Rule)
- Metered Baseline Method (**MBM**):
  - Baseline per unit of output (clause 8.5)
  - Baseline unaffected by output (clause 8.6)
  - Normalised baseline (clause 8.7)
  - NABERS baseline (clause 8.8)
  - Aggregated Metered Baseline (clause 8.9), and
- Deemed Energy Savings Method - Home Energy Efficiency Retrofits (clause 9.8).

From 28 April 2017 the Installation of High Efficiency Appliances for Business method also includes some gas saving activities in Schedule F of the ESS Rule.

ACPs can only create ESCs for activities for which they are accredited. The Accreditation Notice will specify whether an ACP is accredited to implement a RESA that results in a reduction in gas consumption, or just electricity consumption. ACPs can only create ESCs for implementations of their RESA after they were authorised to do so. For example, if an ACP had their conditions of accreditation amended to include improving the efficiency of gas consumption in their RESA, they could only create ESCs for implementations that occurred after the date of amendment. This is because, prior to that date, they were only accredited with respect to a RESA that increased the efficiency of electricity consumption.

There are also specific requirements in the ESS Rule that must be met in relation to the measurement of gas, and the calculation of energy savings for fuel switching projects. More information can be found in the relevant method guide.[10]

2.4 Principles/standards

Auditing standards contain the basic principles, essential procedures and guidance for conducting audits. As no specific auditing standard exists for audits of matters under the

10 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings

ESS, audits are conducted to the relevant auditing standards as specified in Section 3 of the *Audit Guideline*.[11]

If an auditor prefers to use a different standard, they must contact IPART before submitting the DSW for review.

In the DSW and audit report auditors must state which standard they used to conduct the audit and that the audit was conducted in accordance with the standard.

2.5 Audit plan

The DSW should include an audit plan outlining the various stages of the audit. The audit plan should identify a possible commencement date and expected end date (ie, issue of draft report to IPART) for the audit. It is understood that this timeframe may be subject to change (in discussion with IPART).

2.6 Resourcing

The DSW should identify the level of resourcing that will be required to complete the audit.

All key personnel that will participate in the audit must be identified, and their roles, technical competency and relevant experience must be specified, including:

- the lead auditor
- peer reviewer responsible for reviewing the draft report prior to its submission to IPART (separate to the lead auditor)
- key personnel or subcontractors that conduct field work, and
- any subcontractors used.

If the team members are not lead auditors (and hence not listed on the Audit Services Panel Agreement), then CVs or professional qualifications should be attached to the DSW or summarised within the DSW itself.

Team members should have experience relevant to the method they are auditing.[12] A combination of education, training and professional experience will satisfy this requirement.

Any additions or changes to key personnel or deviations to the DSW must be notified to IPART and accepted by IPART prior to conducting work.

2.7 Quote

Where an ACP is commissioning an audit, a quote should specify the hours, rates and costs in the DSW. Rates provided should reflect rates initially approved ($ hourly rate/excluding GST) and specified in the relevant Audit Services Panel Agreement (Schedule 4).

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12 Note that for audits in relation to the Project Impact Assessment with Measurement and Verification method, auditors will be required to have specific measurement and verification skills and be approved separately by IPART as an M&V Auditor.

Where IPART is commissioning an audit, a quote for services to IPART must be provided with the DSW. The quote should be a fixed price quote and must:

- itemise a separate cost for each stage of work specified in the DSW, and
- specify a total cost for the services applying the hourly rates set out in Schedule 4 of the Audit Services Panel Agreement when calculating each of the costs referred to above, subject to any variation to the rates as approved by IPART.

2.8 Sampling plan

To provide a reasonable assurance opinion, auditors are not required to review every piece of evidence. Rather, they take a risk-based approach to audits. Audits of ACPs who have implemented activities across multiple sites (eg, for commercial lighting) will likely involve audit sampling of a selection of the sites across the population.

To adequately assess the materiality of quantitative errors, a statistically significant sample of ESC creation is required based on the number of sites, or discrete project locations, subject to the audit.

The three tiers consist of the following:

- Tier 1: desktop review to ensure key documentation (as specified in the relevant Evidence Manual) is available, complete and correct (eg, energy saver nomination forms, purchaser details, implementation date evidence, $5 / MWh co-payment verification for the Commercial Lighting Method)
- Tier 2: detailed review to validate all records supporting ESC creation as required by the relevant method guide or evidence manual for the particular calculation method
- Tier 3: site visits to 'ground truth' the evidence provided.

For more information about audit sampling and how to determine a sample size for the three tiers, refer to section 4.2.3 of the Audit Guideline.

The proposed sampling regime and its mathematical basis must be included in the DSW.

2.9 Schedule of Sites

A schedule of all the sites that are to be covered by the audit should be attached to the DSW (for relevant methods, ie, those that result in multi-site implementations). The schedule is typically submitted as a separate spreadsheet and should include, at least, the following information for each implementation:

- implementation date
- ESC creation date (and vintage)
- registration reference number (for registered ESCs)
- site address
- number of ESCs created, or eligible for creation
- installer name and details (as relevant)

- ‘original’ energy saver details
- details of the upgraded End User Equipment (**EUE**) (eg, type, model), and
- applicable version of the ESS Rule.

For multi-site RESAs the schedule of sites should clearly identify which sites are subject to tier 1, 2 and 3 checks.

The schedule of sites to be sampled must **not** be shared with the ACP before IPART approves the DSW.

2.10 Audit Deed Poll

A Deed Poll clarifies IPART’s rights and responsibilities in relation to the audit and should be submitted along with the DSW. It is a tripartite agreement that sets IPART as the client for the audit no matter who is engaging the auditor. Executed Deed Polls need to be submitted to IPART along with the DSW. The Deed Poll must:

- be executed by persons with proper signing authority (typically an officer of the company)
- include the completed Annexure (name, services, contract date), and
- detail the audit period and/or batch numbers of ESCs to be audited (Item 2 “Services” of the Annexure of the Deed Poll).

Evidence of authority to sign should be attached to the Deed Poll (eg, ASIC extract or letter of authority as relevant).

2.11 Conflict of interest statement

Every DSW should contain a statement confirming that the Auditor does not have a conflict of interest with the proposed auditee or how any potential conflicts will be managed.

Auditors must conduct all audits with sufficient independence and without actual or potential conflicts of interest. More information about managing conflicts of interest, including examples of possible conflicts, can be found in section A.3 of the Audit Guideline.

3 Glossary

Acronym or Term	Description
Accreditation Conditions	Conditions imposed by the Scheme Administrator on the accreditation of an ACP under section 138(1)(b) of the Act and specified in their Accreditation Notice.
Accreditation Notice	A written notice issued by the Scheme Administrator under clause 48(1) of the Regulation specifying any Accreditation Conditions.
Accredited Certificate Provider (**ACP**)	ACPs are voluntary participants in the ESS. They are parties that are accredited to create Energy Savings Certificates (ESCs) from carrying out Recognised Energy Savings Activities (RESAs) that increase the efficiency of electricity consumption.
Act	*Electricity Supply Act 1995* (NSW)
Adverse conclusion	A conclusion of the audit team leader that in their opinion there are misstatements that are material and pervasive enough to affect the matter being audited as a whole.
AEMO	Australian Energy Market Operator
Audit	An independent assessment of whether the auditee has complied, in all material respects, with the requirements of the ESS legislation. In relation to ESC creation this can occur either before ESC registration (pre-registration) or after ESC registration (post-registration).
Audit Conclusion	A conclusion of the audit team leader about the outcome of the audit. There are four types of conclusion: reasonable assurance, qualified reasonable assurance, adverse or the conclusion that the auditor cannot form an opinion.
Audit Services Panel	A panel managed by IPART that includes suitably qualified and experienced auditors. Only Audit Services Panel Members are allowed to undertake ESS audits.
Audit Services Panel Agreement	An agreement between IPART and the Audit Services Panel Member. All Audit Services Panel Members must have executed an Audit Services Panel agreement with IPART.
Audit Services Panel Member	Those who have been assessed by IPART to have sufficient skills and experience to be a member of the Audit Services Panel.
BCA	Building Code of Australia. Refer: www.abcb.gov.au
COI	Conflict of Interest
CPMS	Compliance and Performance Monitoring Strategy
Deed Poll	A Deed Poll clarifies IPART's rights and responsibilities in relation to the audit. It is a tripartite agreement that sets IPART as the client for the audit no matter who is engaging the auditor. Executed Deed Polls need to be submitted to IPART along with the Detailed Scope of Works.
Detailed Scope of Works (**DSW**)	The DSW is prepared by an auditor based on audit scopes developed by IPART.
ELT	Emerging Lighting Technology
Energy saver	Means the person who has the right to create ESCs for particular energy savings arising from an implementation of a RESA at a site, as defined in the relevant calculation method of the ESS Rule.
Energy Savings Certificates (**ESCs**)	A transferable certificate under Part 9 of the Act that is created in accordance with the ESS Rule, and that represents one notional MWh of energy savings.
ESC Vintage	Vintage refers to the calendar year in which the energy savings from a particular implementation occur.
ESS	Energy Savings Scheme

Acronym or Term	Description
ESS Rule	The *Energy Savings Scheme Rule of 2009* (NSW), which may be amended from time to time.
Improperly created ESCs	ESCs that have not been created in accordance with the requirements of the Act, Regulation, ESS Rule and any Accreditation Conditions imposed on the ACP (refer section 133 of the Act). In general, improperly created ESCs are asked to be forfeited by the ACP.
IPART	Independent Pricing and Regulatory Tribunal
LCP	Lamp Circuit Power
Material error	Refer to the Audit Guideline
Method Guide	A guide that details how particular methods in the ESS operate including method eligibility requirements and how to calculate energy savings.
Misstatement	Misstatement, in relation to a matter being audited under an assurance engagement, means an error, omission or misrepresentation in the matter relating to compliance with the Act, the Regulation, the ESS Rule and the Accreditation Conditions.
QA	Quality Assurance
Qualified reasonable assurance conclusion	Refer to the Audit Guideline
Reasonable assurance conclusion	Refer to the Audit Guideline
Recognised Energy Saving Activity (**RESA**)	Activities that are eligible under the ESS Rule. ACPs are accredited to carry out these activities at a single site, or at multiple sites as a program of energy savings activities.
Regulation	*Electricity Supply (General) Regulation 2014* (NSW)
Schedule of Findings	The schedule in which auditors are to identify, describe and assess the materiality of all errors identified during the audit.
Schedule of Sites	The schedule in which all sites involved in the audit are listed. It should highlight the sites selected for site visits or record reviews.
Scheme Administrator	A function of IPART to ensure that ACPs create ESCs in accordance with the Act, the Regulation, the ESS Rule and their accreditation conditions.
Scheme Participant	Mandatory participants in the ESS, primarily electricity retailers, who are required to meet individual energy savings targets through the surrender of ESCs or payment of a penalty.
Three Audit Rule	A rule to ensure that each ACP and Scheme Participant is audited by different Audit Services Panel members over time. After an audit firm has performed three consecutive audits for an auditee, that auditee must engage a different auditor for the next audit.

Appendices

A Template for DSW cover sheet

This table has to be included as a cover page of DSWs for ESC creation and pre-registration audits.

DSW prepared by:			
Auditor:			
Lead Auditor:			
DSW submitted to IPART (date):	<insert date here>		
DSW prepared for :			
Accredited Certificate Provider:			
Name of Accreditation:			
RESA description:			
Accreditation number:			
Accreditation Notice issue number:			
Date of Accreditation Notice:			
Calculation method:			
Audit Scope			
Number of ESCs to be audited			
Implementation dates covered by the audit	to		
ESC creation period covered by the audit:	ESCs registered [or proposed to be registered] from to <Insert number of ESCs> ESCs of vintage ; <Insert number of ESCs> ESCs of vintage		
ESC Registration Reference Numbers (For each batch of ESCs included in the audit):			
Type of audit:	<eg.volumetric; annual; spot; pre-registration>		
Total number of sites in the audit batch:			
Number of sites sampled for desktop review (Tier 1):	<Number>	Representing % of the total number of ESCs	
Number of sites to be sampled for detailed document review (Tier 2):	<Number>	Representing % of the total number of ESCs	
Number of site visits (Tier 3):	<Number>	Representing % of the total number of ESCs	
Deed Poll			
Including number of ESCs (in annexure Item 2 of the Deed Poll)	Included ☐		
Signatory Authority (if applicable)	Included ☐		

B Scope items - Commercial Lighting Energy Savings Formula

The minimum required records for ACPs using the Commercial Lighting Energy Savings Formula are described in the *Evidence Manual - Commercial Lighting Energy Savings Formula*.[13] Auditors should check that ACPs have gathered the relevant evidence stipulated in the Evidence Manual for each upgrade that is part of the audit batch and recorded it in the Evidence Pack.

Particular requirements that must be addressed in all audits of ACPs using the Commercial Lighting Formula are outlined in the following sections.

B.1 Versions of the ESS Rule

Some audits of ESCs created using the Commercial Lighting Formula may contain ESC registration or calculations that fall under three different versions of the ESS Rule,[14] as follows:

- the ESS Rule in force from 1 July 2014 until 14 April 2016
- the ESS Rule in force from 15 April 2016 until 27 April 2017 (previous Rule),[15] or
- the ESS Rule in force from 28 April 2017.

Auditors will need to consider the different requirements that apply for each version of the ESS Rule. Refer to section 2.3.3 for more information on transitional arrangements that may apply in relation to the most recent amendments to the ESS Rule.

If an audit covers ESCs from different versions of the ESS Rule, the DSW must:

- clearly identify the separate batches of sites and ESCs in the Schedule of Sites, and
- treat those batches separately for sampling purposes (ie, a three tier approach for each of the two batches).

Particular issues that should be checked for the three versions of the ESS Rule are summarised in Table B.1. Auditors should also refer to the current version of the *Commercial Lighting Method Guide* and *Commercial Lighting Evidence Manual* for more details.

Table B.1 Specific issues to be checked for versions of the ESS Rule

Rule version	Issues and ESS Rule reference
Old Rule (1 July 2014 until 14 April 2016)	▼ Pro-rating ESC creation no longer allowed, leading to ESC vintage issues (ie, ESCs not created in the year in which the energy savings are deemed to occur).

13 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Commercial_Lighting

14 Previous versions of the ESS Rule can be found at: www.ess.nsw.gov.au/How_the_scheme_works/Legal_Framework_and_Rules/Rule_archive

15 Including minor amendments made to the ESS Rule on 30 September 2016

Rule version	Issues and ESS Rule reference
	▼ ACP being nominated as the energy saver in the correct form and manner prior to the implementation date.
Previous Rule (15 April 2016 until 27 April 2017- including minor amendments made on 30 September 2016)	▼ Mercury recycling - new requirements commenced on 15 May 2016 (refer clause 5.3A(b)). ▼ Amendments to the control multipliers that may be used (refer tables A10.4 and A10.4A). ▼ Definition of 'purchaser' changed (refer clause 10.1).
Current Rule (from 28 April 2017)	▼ The co-payment requirement (clause 9.4.1(e)) was amended to clarify that energy savings may only be calculated using the method if the purchaser has paid a net minimum of $5 per mega-watt hour of electricity saved (excluding GST). ▼ Addition of a new clause (clause 9.4.1(h)) stipulating that lighting upgrades of traffic signals must meet the relevant requirements of AS2144:2014 or other standards or benchmarks as specified by the Scheme Administrator. ▼ The default factors and classifications in Schedule A were amended for lamp circuit power (LCP) values (Table A9.2) and air conditioning multipliers (Table A10.5).

B.2 Eligibility requirements (Tier 1 checks)

For each implementation the original energy saver must have:

- been the purchaser, and
- paid a net amount of at least $5 (excluding GST) / MWh of energy savings (which was not reimbursed or credited by anyone, including the ACP or another party).

Clause 6.2 of the ESS Rule states that ACPs may only create ESCs for implementations where they were the energy saver at the implementation date, and that they were already accredited. As such, if the ACP was the original energy saver, their accreditation date must have been **before** the implementation date. If the ACP was the nominated energy saver, the nomination date for each implementation must also have been **before** the implementation date.

In addition, for implementations before 20 March 2017, the ACP (or installer) must have provided a *Building Lighting Information Sheet* to the purchaser for each implementation on or before the completion of the installation. For implementations on or after 20 March 2017, the ACP (or installer) must have provided the purchaser with:[16]

- the *Commercial Lighting Fact Sheet* at the commencement of the lighting upgrade, and
- a completed *Commercial Lighting Post Implementation Declaration* upon completion of the lighting upgrade.[17]

B.3 ESC registration (Tier 1 checks)

The auditor should complete the following checks for ESCs that were registered:

16 Refer: www.ess.nsw.gov.au/ESS_Notices_and_Updates/Notice_022017_-_Commercial_Lighting
17 Available here: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Commercial_Lighting

- on or after 1 July 2014 up to 30 September 2014, that the data corresponding to clauses 6.8(a) to 6.8(g) has been provided to IPART
- on or after 1 October 2014, that the data corresponding to clauses 6.8(a) to 6.8(k) has been provided to IPART, and
- that this information is provided using the correct Implementation Data Sheet (through the ESS Portal).[18]

B.4 $5 / MWh co-payment (Tier 1 and Tier 2 checks)

Auditors should satisfy themselves that the required minimum $5 / MWh co-payment has been made and no reimbursement or credit has, or will, cause the net amount to fall below the minimum amount required. This will require checking the tax invoices and payment records held by ACPs and their contractors (Tier 1), and conducting additional verification checks directly with purchasers, such as checking a certified copy or extract from a sales ledger clearly showing that the purchaser made the required co-payment for the lighting upgrade (Tier 2). The auditor must obtain verbal or email confirmation from the purchaser that:

- they have made the co-payment, and
- where a reimbursement or credit of any kind was made or offered, that this did not, and will not, reduce the net amount paid by the purchaser below the $5 per MWh minimum co-payment.

Note that the purchasers should **not** be contacted prior to the audit by anyone (eg, ACP or installer or supplier). All information concerning purchaser contact details should be available to the auditor at the time of the DSW submission and the auditor should be the first point of contact with the OES.

In addition to the above required checks, it may also be necessary for auditors to review any contractual documents or other communications between the ACP and any person undertaking any aspect of the energy savings activity for which the ACP will register ESCs. For example, such documents could show an intention to offer upgrades without charging the co-payment, or demonstrate that no contractual mechanism was put in place to enforce the co-payment requirement.

If a different payment model has been used, such as a lease arrangement, auditors should also review any documents relating to the arrangements and verify these with the purchaser. This should include a check regarding any arrangement for the provision of a credit or reimbursement at a future date.

Further information about current minimum scope items for $5/MWh checks are set out in *ESS Notice 05/2016 Expanded Audit Scope - Commercial Lighting Formula* and *Notice 04/2017 - Commercial Lighting - clause 9.4.1(e) - Revised $5 MWh payment requirement*.[19]

18 Available here: www.ess.nsw.gov.au/Registry/Creating_certificates
19 Refer: www.ess.nsw.gov.au/ESS_Notices_and_Updates

B.5 Desktop (Tier 1) and detailed review (Tier 2) - calculation of energy savings

The auditor should complete a thorough examination of the application of the Commercial Lighting Formula to the calculation of energy savings, in particular checking:

- evidence provided to support the parameters used in the energy savings calculations (ie, entered in the Commercial Lighting Calculation Tool, or the ACP's own calculation tool)
- use of valid Lamp Circuit Power (**LCP**) values in accordance with Table A9.2 or A9.4 of the ESS Rule or, for Emerging Lighting Technologies (**ELTs**), in accordance with the Public List[20] or otherwise approved by the Scheme Administrator[21]
- that the correct Annual Operating Hours (**AOH**) for each area have been applied in accordance with the appropriate Building Code of Australia (**BCA**) classification and appropriate evidence has been gathered
- use of correct default lighting operating factors in accordance with Table A10.1, A10.2, A10.3, A10.4, A10.4A and A10.5 of the ESS Rule (including Asset lifetime, AOH, Control Multiplier and air conditioning multiplier[22])
- where the Maintained Emergency Lighting space type has been used, that each luminaire is always on and is a 'maintained emergency luminaire' type in accordance with AS2293.1, and
- that the baseline energy consumption (ie, the use of either Equation 7 or Equation 8 of the ESS Rule) has been determined following the correct assumptions specified in Equation 6 of the ESS Rule.[23]

B.6 Personnel requirements (Tier 2 checks)

The lighting upgrade must have been performed by appropriately trained persons and undertaken by, or under the supervision of, a licensed electrician. The following items should be checked as part of the audit:

- electrician's licence
- that a Certificate of Completion of Electrical Work (**CCEW**) has been completed for each implementation (and includes the details of the work completed and signed and dated by the electrician)
- that the electrician is included in the ACP's register of installers, and
- compliance with minimum training requirements – as stipulated in the ESS *Notice 01/2013 Minimum requirements for conduct of persons acting on behalf of ACPs – v2.0 July 2014*.[24]

20 Refer: www.ess.nsw.gov.au/ELT/Product_Search
21 In some cases the Scheme Administrator may approve the LCP for the lighting products that were removed as part of the upgrade.
22 Note that the air conditioning multiplier was amended in the 28 April 2017 ESS Rule change.
23 For more information, refer to Sections 4.2 and 5.2 of the Evidence Manual.
24 Refer: www.ess.nsw.gov.au/Events_and_Updates/ESS_Notices

B.7 Products and equipment requirements (Tier 2 checks)

There are a number of equipment requirements that must be checked by the auditor for each implementation, as follows.

- Products or equipment must be inspected to confirm the number and type, including:
  - Physical examination of purchased or installed products and equipment (where possible).
  - Comparison of products and equipment details described in purchase documents (invoices and/or purchase requisitions) or signed Nomination Forms (if applicable) to products and equipment currently installed. For instance, by comparing the number and type of lamps, nominal lamp power, ballast transformer type, lighting control systems, heating and cooling systems.
  - For the 'Original End-User Equipment' reconciliation, check records authorising the removal of old or obsolete End-User Equipment with records detailed in signed Nomination Forms or other supporting evidence like a disposal or recycling receipt or a certificate from a program such as 'Fluorocycle' or equivalent. Recycling is required for projects in a Metropolitan Levy Area (with a postcode listed in Table A25 of the ESS Rule) and with an implementation date on or after 15 May 2016.
- If the lighting upgrade involves lamps that can be easily replaced with the original lamp (ie, only the lamp has been replaced) check that the asset lifetime has been determined as per Table A10.1 of the ESS Rule.
- For lighting equipment that is classified as an ELT, the auditor must:
  - confirm that the equipment was accepted by the Scheme Administrator and on the Public List of Accepted ELTs[25] before the application to register ESCs was made[26]
  - check that for implementations undertaken on or after 1 June 2014, no T5 Adaptors or LED Tubes (in a retrofitted luminaire) were installed, and
  - check that equipment used meets the requirements of clause 9.4.1(f) of the ESS Rule for implementations after 1 July 2015.
- Where multi-mode lighting is used for implementations on or after 1 July 2014, the auditor must check the AOH[27] corresponding to the site's BCA classification and the appropriate Control Multiplier[28] have been applied to the full-power LCP mode.
- Check whether the requirements in the Evidence Manual have been met in relation to lamp type, nominal lamp power (**NLP**), lamp quantities, lighting control systems and air conditioning.

25 Refer: www.ess.nsw.gov.au/ELT/Product_Search

26 In some cases, acceptance of a particular product may be withdrawn or amended by the Scheme Administrator. A list of products that have had their acceptance withdrawn or amended can be found here: www.ess.nsw.gov.au/Projects_and_equipment/Lighting_Technologies/Using_Lighting_Technologies_for_Commercial_Lighting.

27 Tables A10.2 or A10.3 of the ESS Rule.

28 Table A10.4 and A10.4A of the ESS Rule.

B.8 Site visits (Tier 3 checks) – building lighting

Auditors must perform site visits for a sample of project sites to verify compliance of service levels for lighting installations and check the implementation of relevant policies and procedures, including the following.

- Checking whether the lighting characteristics and upgrades at the sampled project sites must meet or exceed the recommendations of AS/NZS 1680, or another benchmark approved by the Scheme Administrator. This includes, but is not limited to, maintained illuminance accounting for lumen depreciation, control of glare and uniformity of illuminance. Auditor activities may include:
  - Testing light meter readings using the procedures recommended by AS/NZS 1680 (eg, excluding daylight, and taking readings at recommended spacing and height above the floor). If it is not possible to exclude daylight when taking readings, light meter readings should be taken with the lights on and then with the lights off and report the difference between the two as an approximation of the 'daylight excluded' lighting levels.
  - Checking that lighting surveys have been carried out using a calibrated lux meter and accurate measurement methodology.
  - Checking for maintained illuminance by ensuring that the maintenance cycle adopted provides for an average illuminance which does not fall below the recommended or required maintained illuminance.[29]
  - Checking for uniformity of illuminance by ensuring the working place allows for a particular or series of tasks to be performed anywhere within the space, without alteration to the lighting.[30]
- Checking that the additional requirements of AS/NZS 1680 have been considered for each lighting upgrade, at a minimum:
  - the correlated colour temperature[31]
  - colour rendering index[32]
  - glare, in order to avoid 'disability glare' and 'discomfort glare'
  - reflectance of surfaces, and
  - daylight effects.
- Checking the requirements of the BCA section F4.4, Safe Movement have been met (Tier 2 check).

Checking that the Illumination Power Density (**IPD**) achieved after the lighting upgrade is equal or less than the maximum IPD for each space, as defined in Part J6 of the BCA (Tier 2 check).

29 Refer to Table 3.1, Appendix B and Appendix C of AS/NZS 1680.1:2006.
30 Refer to Table 3.2 AS/NZS 1680.1:2006 for recommended minimum illuminance uniformity.
31 Correlated colour temperature is a measurement of the apparent colour of the light source.
32 Colour rendering index is a measurement of how accurately a light source can portray the colour of an object in comparison to a reference light source.

B.9 Site visits (Tier 3 checks) – roads and public spaces and traffic signals

Auditors must perform site visits for a sample of project sites to verify compliance of service levels for lighting installations and check the implementation of relevant policies and procedures, including checking whether the lighting characteristics and upgrades at the sampled project sites meet or exceed the requirements of:

- for roads and public spaces - the AS/NZS 1158 series of standards or another standard or benchmark approved by the Scheme Administrator, or
- for traffic signals – the relevant requirements of AS 2144:2014 or another standard or benchmark approved by the Scheme Administrator.

C Scope items – Public Lighting Energy Savings Formula

Some audits of ESCs created using the Public Lighting Formula may contain ESC registration or calculations that fall under two different versions of the ESS Rule,[33] as follows:

- the ESS Rule in force from 15 April 2016 until 27 April 2017 (previous Rule),[34] or
- the ESS Rule in force from 28 April 2017.

Auditors will need to consider the different requirements that apply for each version of the ESS Rule. Refer to section 2.3.3 for more information on transitional arrangements that may apply in relation to the most recent amendments to the ESS Rule.

If an audit covers ESCs from different versions of the ESS Rule, the DSW must:

- clearly identify the separate batches of sites and ESCs in the Schedule of Sites, and
- treat those batches separately for sampling purposes (ie, a three tier approach for each of the two batches).

The amendments to the ESS that commenced on 28 April 2017 included the following changes for the Public Lighting Formula:

- Clause 5.4(c) was amended to clarify that Network Service Providers may undertake energy saving activities that include non-network options, such as demand management. New terms relevant to that clarification were also defined in clause 10.1.
- Default factors and classifications in Schedule A were amended for LCP values (Table A9.2) and air conditioning multipliers (Table A10.5).

33 Previous versions of the ESS Rule can be found at: www.ess.nsw.gov.au/How_the_scheme_works/Legal_Framework_and_Rules/Rule_archive

34 Including minor amendments made to the ESS Rule on 30 September 2016

D Scope items – Sale of New Appliances Method

D.1 Versions of the ESS Rule

Some audits of ESCs created using the SONA method may contain ESC registration or calculations that fall under two different versions of the ESS Rule,[35] as follows:

- the ESS Rule in force from 15 April 2016 until 27 April 2017 (previous Rule),[36] or
- the ESS Rule in force from 28 April 2017.

Auditors will need to consider the different requirements that apply for each version of the ESS Rule. Refer to section 2.3.3 for more information on transitional arrangements that may apply in relation to the most recent amendments to the ESS Rule.

If an audit covers ESCs from different versions of the ESS Rule, the DSW must:

- clearly identify the separate batches of sites and ESCs in the Schedule of Sites, and
- treat those batches separately for sampling purposes (ie, a three tier approach for each of the two batches).

The annual ESS Rule amendment process typically results in updates to the deemed electricity equipment savings for SONA activities in the Schedules. Auditors should refer to the current version of the *Sale of New Appliances Method Guide* for more details.

D.2 Eligibility

As a minimum, the requirements outlined in Table D.1 need to be checked with regards to eligibility of each implementation under the Sale of New Appliances (**SONA**) method.

Table D.1 Specific checks required in relation to eligibility

Issue & Method Guide reference	Requirement
Energy saver (Section 3.1)	The energy saver is the appliance retailer that sold the end-user equipment to the purchaser.
Nomination (Section 3.1)	The nomination of the ACP as the energy saver must be made in a form and manner approved by the Scheme Administrator. The approved template for nomination forms is here: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Sale_of_New_Appliances The nomination form must be dated the day it is signed by both parties to the agreement.

35 Previous versions of the ESS Rule can be found at: www.ess.nsw.gov.au/How_the_scheme_works/Legal_Framework_and_Rules/Rule_archive

36 Including minor amendments made to the ESS Rule on 30 September 2016

Issue & Method Guide reference	Requirement
Purchaser[37] (Section 3.3)	The purchaser is the person who purchases or leases the goods or services that enable the relevant energy savings to be made. The purchaser cannot be: ▼ a person who is an ACP that is not the owner, occupier or operator of the site,[38] and ▼ a person who purchases the goods or services for the purpose of reselling the End-User Equipment, unless the resale will be an inclusion in a contract for the sale of land, or the sale of a lot in a strata scheme
Sold (Section 3.2)	The Appliance Retailer must be the owner of the appliance at the time of sale, and there must be a transfer of ownership of the appliance from the Appliance Retailer to the purchaser in exchange for payment. Where a retailer is acting as an agent for a manufacturer they will not be classified as the 'Appliance Retailer' as they do not own the appliance.
New appliances (Section 3.5.2)	The appliance must be 'new' at the time of sale. This means that the appliance must not have been sold previously. For example, the following are **not** considered new: ▼ any appliance that has previously been returned regardless of whether it was used or not, as the energy savings arising from the original eligible sale would be captured (ie., ESCs would have been created for the original sale) ▼ appliances that have been refurbished by the manufacturer, and ▼ second hand sales.
Equipment (Appendix A)	All appliances sold must meet the equipment requirements.

The types of activities that may be undertaken at audit to check these requirements include:

- examining the energy saver nomination forms
- viewing correspondence between the ACP and the Appliance Retailer relating to signing of the nomination form
- meeting with the Appliance Retailer to assess process for preparing the sales ledgers
- assessing processes for addressing the return of appliances after sale, and sales of multiple appliances to an energy saver
- checking sale amounts (dollars paid) by viewing tax invoices and stock records of the Appliance Retailer
- confirming that sales ledgers include all the information stipulated by the *Method Guide: Sale of New Appliances*[39]
- referring to the E3 Minimum Energy Performance Standard database and Schedule B of the ESS Rule to confirm that the correct deemed values have been assigned
- checking that the model numbers of the appliances are correct, and
- confirming that the appliances meet the equipment requirements.

These activities may be done as part of a sampling plan. The sampling plan for audits of compliance with the SONA method will likely involve sampling at both the site (each Appliance Retailer) and document level across the three tiers.

37 Note that the definition of purchaser changed on 15 April 2016, refer section 2.3.3.
38 ACPs that are the nominated energy saver will typically fall under this category and be precluded from being the purchaser.
39 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Sale_of_New_Appliances

D.3 Record keeping

The *Method Guide: Sale of New Appliances* details the requirements for the information and documents that must be collected to support the energy savings. Specific issues that need to be checked include:

- confirm the accurate transfer of data from sales ledgers to the ACP's systems
- confirm accurate transfer of data from the ACP's systems to the Implementation Data Sheets
- view evidence of implementation of QA processes, including:
  - duplicate checking
  - checking that appliances have not been sold to resellers, and
- address checking (NSW addresses).

E Scope items – Project Impact Assessment with Measurement and Verification Method

E.1 Accreditation conditions

Some ACPs using the Project Impact Assessment with Measurement and Verification (**PIAM&V**) method have additional conditions applied to their accreditation by the Scheme Administrator (as set out in their Accreditation Notice). These conditions and the audit scope items that should be checked at audit are summarised in Table E.1.

Table E.1 PIAM&V conditions and audit scope items

Reference	Condition	Audit scope item
Item 4	The Auditor who conducts the audit is suitably qualified in the PIAM&V method and approved by the Scheme Administrator to conduct PIAM&V audits.	Only auditors who are approved by the Scheme Administrator and listed on the approved list of auditors[40] can conduct the audit.
Item 4	The ACP must provide the Auditor with information evidencing how they developed their baseline energy model, operating energy model and normal year.	Auditors must closely review whether the models have been developed and applied in accordance with clause 7A of the ESS Rule, including that the M&V Professional has conducted a thorough review of the various aspects of the model as required by the ESS Rule.
Item 9	Before applying to register ESCs in respect of the RESA the ACP must provide the Scheme Administrator with information demonstrating, to the satisfaction of the Scheme Administrator, any matter that the Scheme Administrator specifies (in the notice)	Auditors must check whether the ACP has received such written notice from the Scheme Administrator and, if so, that they have provided information for any relevant implementations to the satisfaction of the Scheme Administrator.

Auditors should closely review the Accreditation Notice for any relevant conditions and should discuss any issues with IPART, prior to commencing scoping of the audit.

E.2 Amendments to the ESS Rule

A number of aspects of the PIAM&V method changed when the amendments to the ESS Rule commenced on 28 April 2017. Auditors should refer to the ESS Rule amendments fact sheet on the website[41]. Key amendments include:

- Clause 7A.2 was amended to clarify that energy models (ie, Estimate of the Mean, Regression Analysis, Computer Simulation) can be developed for single sites (based on measurements) or multiple sites (using a Sampling Method).
- Clause 7A.5(f1) was added to clarify that measurement periods must include time periods during which independent variables may be reasonably expected to increase electricity consumption, gas consumption, or both.

40 Refer: www.ess.nsw.gov.au/Audits_and_Compliance/List_of_Auditors
41 Refer: www.ess.nsw.gov.au/How_the_scheme_works/Scheme_changes

- Clause 7A.8 and equation 7A.2 were amended to clarify the upper and lower limits of effective range.
- Clause 7A.15 was amended to clarify that Measurement and Verification (**M&V**) Professionals must demonstrate an understanding of the PIAM&V method, as well as best practice measurement and verification techniques. Applications to become an M&V Professional must be in the form and manner approved by the Scheme Administrator.
- ACPs or new applicants may now apply to use the Sampling Method. Clause 7A.20 has been added to the ESS Rule to specify requirements for use of the Sampling Method. Other PIAM&V clauses have also been amended to account for the Sampling Method.

E.3 Additional Scheme Administrator requirements

On 25 May 2017 the Scheme Administrator published information on acceptable approaches for the use of the PIAM&V Method.[42] From that date, ACPs must develop (and retain as a record) the following documents for each implementation (or population, if using the sampling method):

- Measurement & Verification Plan (M&V Plan)
- Measurement & Verification Report (M&V Report), and
- Sampling Plan (if applicable).

Requirements for the use of the Sampling Method were also included in the notice published on 25 May 2017. Auditors should refer to the notice for further information.

The changes outlined above were included in the updated version of the *PIAM&V Method Guide* published on 25 September 2017.[43]

E.4 M&V Professional

A key aspect of the PIAM&V method is that ACPs use Measurement and Verification (**M&V**) Professionals to review and deem appropriate many aspects of their energy saving calculations. From 15 April 2016, M&V Professionals must be approved by the Scheme Administrator. Refer to section 3.9 of the *PIAM&V Method Guide* for more information. If auditing ESCs that were created prior to 15 April 2016, auditors should confirm that the M&V Professional that was used met the requirements of clause 7A.15 of the previous ESS Rule. More information on approvals of M&V Professionals can be found in the *Guide for Measurement & Verification Professionals*.[44]

The ESS Rule requires an M&V Professional to deem appropriate the following aspects of an ACP's M&V approach for each implementation delivered under their accreditation:

- the parameters used when measuring energy consumption, independent variables, site constants and any other relevant parameters

42 Refer: www.ess.nsw.gov.au/ESS_Notices_and_Updates/Updates/20171_Consultation_PIAMV_Application_Process

43 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Project_Impact_Assessment_with_MV

44 Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Project_Impact_Assessment_with_MV

- the method for selecting independent variables and site constants
- the measurement procedures
- the normal year (not required for annual creation)
- the effective range
- the interactive energy savings
- the accuracy factor
- use of a persistence model
- the baseline energy model, and
- the operating energy model (not required for annual creation).

Where the M&V Professional deems any of the aspects set out above as appropriate, the M&V Professional must provide an M&V Professional Report. A template for M&V Professional Reports is available on the ESS website (but its use is not mandatory).

Auditors must check whether the M&V Professional used by the ACP performed their role in accordance with the requirements. If the M&V Professional has performed their role in accordance with the requirements, and the ACP has documentary evidence supporting this, then auditors should not have to review the opinion of M&V Professional. The auditor should include a statement regarding whether or not the M&V Professional has performed their role in accordance with the requirements in the audit report. In particular, auditors should include the following matters as specific scope items:

- Check that the M&V Professional used by the ACP was approved by IPART at the time of writing the M&V Professional Report, and that their approval covers the EUE and energy model types used in the relevant implementation (refer to the list of approved M&V Professionals available on the website). The audit report should include the name of the M&V Professional, the date of their approval and date of sign-off of the M&V Professional Report.
- Check that the M&V Professional provided an independent opinion, ie, that they were only involved in the review/validation step and not the design or development of the M&V plan or project.
- Check whether the M&V Professional appropriately managed any (perceived or actual) conflicts of interest that may have arisen in performing their role.
- Check that the M&V Professional has provided a signed M&V Professional Report that:
  - deems, as appropriate, all aspects (as listed above) of the ACP's M&V approach for the relevant implementation
  - includes sufficient written explanatory reasoning to support their opinion over each aspect of the ACP's M&V approach (ie, includes validation that the ACP's approach meets the requirements as well as a clear explanation as to why it meets the requirements), and
  - includes project information that correlates with the information provided by the ACP, ie, M&V plan/report and other supporting evidence on which the M&V Professional Report is based.

If an auditor finds issues with any of the above matters, including anomalies in the documentation prepared by the M&V Professional, then it may be appropriate to conduct further audit procedures (eg, reviewing the opinion of the M&V Professional in detail). If this occurs, auditors should discuss the matter with the ESS Compliance Team to determine whether an audit variation may be appropriate.

E.5 Transition from PIAM

A number of ACPs are transitioning their accreditations from the Project Impact Assessment Method (**PIAM**) to the PIAM&V method. In this situation, most ACPs will be accredited to use either calculation method, in accordance with the requirements of the ESS Rule. Their accreditation notice will reflect this requirement. Audits of these ACPs will need to carefully review whether the method used to calculate each batch of ESCs has been appropriately applied.

ACPs accredited to use PIAM to calculate ESCs using 'Forward Creation' and 'Top up' under PIAM may only continue to use that method in the following circumstances:

- the implementation date of the implementation was on or before 30 October 2015, and
- the end date of the total period of energy savings (ie, the sum of all periods of 'Forward Creation' and 'Top up') for which ESCs are created is not later than 10 years after the Implementation Date.

E.6 Further information

ACPs must select one of our audit firms with key personnel that have been appointed as PIAM&V Auditors to conduct these audits. There is a list of auditors maintained on the ESS website. Auditors can contact IPART for further details if they have questions about the audit engagement.

F Scope items – Project Impact Assessment Method

The main items that need to be checked by auditors for audits in relation to PIAM relate to the periods for which ESCs can be created. These are summarised below.

F.1 Eligibility for annual creation

ACPs accredited to use PIAM to calculate ESCs annually may only continue to use that method in the following circumstances:

- the implementation date of the implementation was on or before 15 April 2016, and
- the Energy Savings are for a maximum period of 10 years after the implementation date.

F.2 Eligibility for forward creation and top-up

ACPs accredited to use PIAM to calculate ESCs using 'forward creation' and 'top up' under PIAM may only continue to use that method in the following circumstances:

- the implementation date of the implementation was on or before 30 October 2015, and
- the end date of the total period of energy savings (ie, the sum of all periods of forward creation and top up) for which ESCs are created is not later than 10 years after the implementation date.

F.2.1 Legislative requirements for forward creation

The start date of a forward creation period for PIAM is prescribed in the ESS Rule (clause 7.4.3). The ESS Rule requires that the implementation date (the date that the implementation commenced normal operations) is used as the start date for the forward creation period. ESCs created under the forward creation election can only be registered until 30 June of the following year.

F.2.2 Forward creation start date used to date

To date, accreditation notices for ACPs have specified a range of dates to start the forward creation period ('start date'), including:[45]

- implementation date, being the date the implementation commenced normal operations
- entitlement date, being the date the application for accreditation was made
- a date specified in the accreditation notice, or
- an 'effective start date' that is when the ACP has collected the records to support ESC creation and is ready to register ESCs.[46]

45 All versions of the ESS Rule.

46 This may include ESCs registered in a vintage later than each of the dates listed above.

Given that the start date of the forward creation period should be the implementation date, the Scheme Administrator has determined to give ACPs the option of recalculating energy savings from the implementation date, if the implementation date has not been used as the start date.

Any recalculation will need to be carried out in respect of each implementation and will be considered by the Scheme Administrator as part of any application for amendment to enable top-up or forward creation.

F.2.3 Length of forward creation periods

Deemed energy savings for top-up, and second periods of forward creation, are taken to occur at the end of the first period of forward creation (clause 7.4.5 of the ESS Rule). This date must be after all energy savings from the first period of forward creation have actually occurred (clause 7.4.3(b) of the ESS Rule).

Auditors should ensure that the ESC creation periods used by ACPs meet the requirements of the ESS Rule.

G Scope items – Metered Baseline Method (MBM)

Some audits of ESCs created using MBM may contain ESC registration or calculations that fall under two different versions of the ESS Rule,[47] as follows:

- the ESS Rule in force from 15 April 2016 until 27 April 2017 (previous Rule),[48] or
- the ESS Rule in force from 28 April 2017.

Auditors will need to consider the different requirements that apply for each version of the ESS Rule. Refer to section 2.3.3 for more information on transitional arrangements that may apply in relation to the most recent amendments to the ESS Rule.

If an audit covers ESCs from different versions of the ESS Rule, the DSW must:

- clearly identify the separate batches of sites and ESCs in the Schedule of Sites, and
- treat those batches separately for sampling purposes (ie, a three tier approach for each of the two batches).

The amendments are outlined below.

G.1 2016 amendments

The amendments made to the ESS Rule that commenced on 15 April 2016 limited the lifespan of the baseline that can be used for all energy saving calculations made using MBM. In particular, a new clause 8.3A limited the period for which energy savings may be calculated using clauses 8.5, 8.6 and 8.7 of the ESS Rule as follows:

- where the ACP's accreditation date with respect to a RESA is on or after 15 April 2016, energy savings from an implementation may be calculated for a maximum of 10 years from the end date of the baseline measurement period
- where the ACP's accreditation date with respect to a RESA is before 15 April 2016:
  - if the end of the baseline measurement period is less than or equal to 10 years before 15 April 2016, energy savings from an implementation may be calculated for up to a maximum of 10 years from the end date of the baseline measurement period, and
  - if the end date of the baseline measurement period is more than 10 years before 15 April 2016, the maximum period for which energy savings may be calculated is the period from the end date of the baseline measurement period to 15 April 2016.

In some cases, ACPs may choose to implement a 'rolling baseline' to address this issue. This may be appropriate where the RESA has involved multiple upgrades at a site over many

47 Previous versions of the ESS Rule can be found at: www.ess.nsw.gov.au/How_the_scheme_works/Legal_Framework_and_Rules/Rule_archive

48 Including minor amendments made to the ESS Rule on 30 September 2016

years. This may result in them recalculating their baseline and the resultant energy savings each year. ACPs should contact the ESS Team for further information if required.

G.2 2017 amendments

The amendments to the ESS Rule that commenced on 28 April 2017 included:

- The NABERS Baseline sub-method (clause 8.8) was amended to include NABERS−rated hospitals as eligible NABERS buildings. The NABERS tables in Schedule A of the ESS Rule (Tables A20 and A21) have been amended to include NABERS Hospital data. In addition, the NABERS Rating Period was defined in clause 10.1.
- The Aggregated Metered Baseline sub-method (clause 8.9) was amended to clarify that the Accredited Statistician is responsible for performing the randomised site allocation and validating the statistical methods prior to the implementation date.

H Scope items – Home Energy Efficiency Retrofits (HEER) Method

The acceptable evidence for ACPs using the HEER Method is described in the *HEER Method Guide*.[49] Auditors should check that ACPs have gathered the relevant evidence for each upgrade that is part of the audit batch. Particular requirements that must be addressed in all audits of ACPs using the HEER Method are outlined in the following sections.

Auditors should include in the DSW which scope items they intend to check via the use of telephone surveys of original energy savers or installers. It is expected that such surveys would be used to confirm certain information as part of the Tier 1 and 2 checks. The results of the survey can then be used to determine whether additional Tier 3 checks may be required.

H.1 Energy saver requirements (Tier 1 checks)

For each implementation the original energy saver must have:

- been the purchaser, and
- paid a net amount of at least $30 (excluding GST) for the implementation, assessment and other associated works carried out at the site (which was not reimbursed or credited by anyone, including the ACP or another party).

The $30 co-payment is not required for implementations undertaken as part of a designated low-income energy program. Currently one program has been designated as such, the Community Housing Provider (**CHP**) component of the Home Energy Action (**HEA**) Program. For implementations done under that program, the ACP must have a document signed by an authorised representative of the CHP that clearly shows the address of the site and affirms that the implementation was done as part of the CHP component of the HEA Program.

Clause 6.2 of the ESS Rule states that ACPs may only create ESCs for implementations where they were the energy saver at the implementation date, and that they were already accredited. As such, the nomination date for each implementation must be **on or before** the implementation date. In addition, the ACP must have conducted a site assessment on or before the implementation date.

[49] Refer: www.ess.nsw.gov.au/Methods_for_calculating_energy_savings/Home_Energy_Efficiency_Retrofits

H.2 Eligibility (Tier 1)

ACPs are accredited for specific activities under HEER and are required to meet certain high level eligibility requirements for each implementation. The auditor should check that:

- the ACP has only implemented activities for which they are accredited (ie, ACPs are only accredited in relation to particular activity definitions from Schedules D and E of the ESS Rule)
- a minimum of four ESCs can be, or have been, created per implementation for activities in Schedule E of the ESS Rule[50]
- the ACP has met any special conditions in the Accreditation Notice in relation to the reporting of implementation data to IPART (via email), and
- any Implementation Data Sheets or ESS Registry uploads are correct.[51]

H.3 Site requirements (Tier 1 and Tier 2 checks)

The auditor should also check each site is a residential building or small business building in NSW, where:

- A 'residential building' means a building classified by the Building Code of Australia (BCA) as a Class 1 or Class 2 building, and may include any non-habitable building (BCA class 10a or 10b) on the same site.
- A 'small business building' means a building comprising total floor space less than 200 square metres and classified by the BCA as a Class 6 building.

It is recommended that the building type be checked through the use of phone surveys of the purchasers (Tier 2).

H.4 Risk management, internal audit and installer management (Tier 1 checks)

Risk management and internal audit

ACPs under the HEER Method have a special audit condition in the Accreditation Notice:

> *"The audit must include in its scope at least the following …whether the ACP's risk management process and internal audit procedures are adequate to effectively review and monitor whether or not the RESA specified in Item 1 is implemented in compliance with the Act, the Regulation, the Scheme Rule and the conditions of this accreditation."*

Auditors should provide an opinion on whether the ACP's risk management policy is appropriate and whether the ACP is actively monitoring risk and keeping its risk register updated.

50 The amendments to the ESS Rule that commenced on 28 April 2017 removed the minimum four ESC requirement for Schedule D activities.

51 Note that additional data reporting requirements were included in the amendments to the ESS Rule that commenced on 28 April 2017 for HEER activities. ACPs are now required to separately report electricity and gas savings for each activity in their Implementation Data Sheet.

In addition, auditors should check that the ACP has appropriately implemented its internal audit procedure prior to external audit and provide an opinion on whether the internal audit procedure is sufficient to detect and control risks.

Conduct of representatives

Auditors must check that ACPs have complied with the minimum requirements for the conduct of installers – as stipulated in the ESS Notice 01/2013 *Minimum requirements for conduct of persons acting on behalf of ACPs V2.0 July 2014*.[52]

H.5 $30 co-payment (Tier 1 and Tier 2 checks)

Auditors should satisfy themselves that the required minimum $30 co-payment has been made and no reimbursement or credit has, or will, cause the net amount to fall below the minimum amount required. This will require checking the tax invoices and payment records held by ACPs and their contractors (Tier 1), and conducting additional verification checks directly with purchasers (Tier 2). It should also involve the use of phone surveys of purchasers (Tier 2).

In addition to the above required checks, it may also be necessary for auditors to review any contractual documents or other communications between the ACP and any person undertaking any aspect of the energy savings activity for which the ACP will create ESCs. For example, such documents could show an intention to offer upgrades without charging the co-payment, or demonstrate that no contractual mechanism was put in place to enforce the co-payment requirement.

If a different payment model has been used, such as a lease arrangement, auditors should also review any documents relating to the arrangements and verify these with the purchaser. This should include a check regarding any arrangement for the provision of a credit or reimbursement at a future date.

H.6 Calculation of energy savings (Tier 1 and Tier 2 checks)

The auditor should complete a thorough examination of the application of the HEER Method to the calculation of energy savings, in particular checking:

- the evidence provided to support the parameters used in the energy savings calculations, and
- the correct deemed activity energy savings formulas and factors have been used, as set out in Schedules D and E of the ESS Rule.

H.7 Activity definition - eligibility requirements (Tier 2 checks)

Each activity definition in Schedules D and E of the ESS Rule includes specific requirements that must be met for the relevant implementation to be eligible, including, but not limited to, the size, type and usage of the existing EUE.

52 Refer: www.ess.nsw.gov.au/Events_and_Updates/ESS_Notices

Auditors should check that the ACP has documentary evidence that the eligibility requirements were met. In particular, that a site assessment was done and a completed site assessor declaration (confirming the eligibility requirements were met) was completed based on the template provided in Appendix A of the Method Guide.

H.8 Activity definition - equipment requirements (Tier 2 checks)

Implementations must meet the equipment requirements for each activity as outlined in the relevant activity definitions in Schedules D and E of the ESS Rule, including, but not limited to:

- requirements for the existing EUE
- compliance of the new EUE with relevant Australian standards
- warranty requirements for the new EUE
- size and performance requirements for the new EUE, and
- specific installation requirements for the new EUE.

H.8.1 Lighting equipment acceptance requirements

Lighting equipment installed under the following activities have additional equipment requirements set by the Scheme Administrator:

- Activity Definition E1 – Replace halogen downlight with an LED luminaire and/or lamp
- Activity Definition E2 – Replace a linear halogen floodlight with a high efficiency lamp
- Activity Definition E3 – Replace parabolic aluminised reflector (PAR) lamp with efficient luminaire and/or lamp
- Activity Definition E5 – Replace and T8 or T12 luminaire with a LED luminaire, and
- Activity Definition E11 – Replace an edison screw or bayonet lamp with an LED lamp for general lighting purposes.

The equipment requirements are different to those for the Commercial Lighting Method and are outlined in *Lighting Requirements: HEER Method*.[53] Lighting products accepted for use under the Commercial Lighting Method are not automatically accepted for use under the HEER method. Lighting equipment that has been accepted for use under the HEER Method is published in a list on the website:
www.ess.nsw.gov.au/Projects_and_equipment/Lighting_Technologies/HEER_Lighting_Requirements

Auditors must confirm that relevant lighting equipment was accepted by the Scheme Administrator on or before the date the relevant application to register ESCs was made.

53 Available here:
www.ess.nsw.gov.au/Projects_and_equipment/Lighting_Technologies/HEER_Lighting_Requirements

H.9 Activity definition - implementation requirements (Tier 2 and Tier 3 checks)

Each activity definition in Schedules D and E includes specific implementation requirements that must be checked, including:

- the installation was done, or supervised, by an appropriately qualified installer, eg, electrician, plumber
- the installer and purchaser co-signed a post implementation declaration based on the template in Appendix B of the HEER Method Guide
- requirements for the installation of the new EUE, and
- requirements for the performance and compatibility of the new EUE.

The evidence requirements for each activity definition are specified in the *HEER Method Guide.*

It is recommended that some of these requirements be checked through the use of phone surveys of the purchasers (Tier 2) or site visits (Tier 3).

H.9.1 Lighting upgrade implementation requirements

Lighting equipment installed under the following activities have additional implementation requirements set by the Scheme Administrator:

- Activity Definition E1 – Replace halogen downlight with an LED luminaire and/or lamp
- Activity Definition E2 – Replace a linear halogen floodlight with a high efficiency lamp
- Activity Definition E3 – Replace parabolic aluminised reflector (PAR) lamp with efficient luminaire and/or lamp
- Activity Definition E5 – Replace and T8 or T12 luminaire with a LED luminaire, and
- Activity Definition E11 – Replace an edison screw or bayonet lamp with an LED lamp for general lighting purposes.

The additional requirements are specified in *Lighting Requirements: HEER Method*[54] and include, but are not limited to:

- declaration by the purchaser that they are satisfied with the light distribution of the new EUE
- a declaration by the electrician that installed dimmers are a compatible model listed in the relevant test report (note that only lighting equipment that has been accepted by the Scheme Administrator for use in installations with existing dimmers may be installed).

H.9.2 Lighting equipment recycling requirement

For the existing EUE reconciliation, check records authorising the removal of old or obsolete End-User Equipment with records detailed in signed Nomination Forms or other supporting

54 Available here: www.ess.nsw.gov.au/Projects_and_equipment/Lighting_Technologies/HEER_Lighting_Requirements

evidence like a disposal or recycling receipt or a certificate from a program such as 'Fluorocycle' or equivalent. Recycling is required for projects in a Metropolitan Levy Area (with a postcode listed in Table A25 of the ESS Rule).

I Scope items - Installation of High Efficiency Appliances for Business

Some audits of ESCs created using the Installation of High Efficiency Appliances for Business method may contain ESC registration or calculations that fall under two different versions of the ESS Rule,[55] as follows:

- the ESS Rule in force from 15 April 2016 until 27 April 2017 (previous Rule),[56] or
- the ESS Rule in force from 28 April 2017.

Auditors will need to consider the different requirements that apply for each version of the ESS Rule. Refer to section 2.3.3 for more information on transitional arrangements that may apply in relation to the most recent amendments to the ESS Rule.

If an audit covers ESCs from different versions of the ESS Rule, the DSW must:

- clearly identify the separate batches of sites and ESCs in the Schedule of Sites, and
- treat those batches separately for sampling purposes (ie, a three tier approach for each of the two batches).

The amendments to the ESS that commenced on 28 April 2017 included the following changes for the Installation of High Efficiency Appliances for Business method:

- Schedule F of the ESS Rule was amended to include new activity definitions for gas fired boilers and heaters and, as a result, Equation 17 was updated to include gas calculations.
- Installation requirements for high efficiency air conditioners (activity definition F4) were amended to allow eligible equipment to be installed in small businesses.
- Deemed hours for high efficiency liquid chilling packages (activity definition F2) and high efficiency air conditioners (activity definition F4) were amended.
- Data reporting requirements were expanded. ACPs are now required to separately report electricity and gas savings for each activity definition in their Implementation Data Sheet.

55 Previous versions of the ESS Rule can be found at: www.ess.nsw.gov.au/How_the_scheme_works/Legal_Framework_and_Rules/Rule_archive

56 Including minor amendments made to the ESS Rule on 30 September 2016