IPART
New South Wales

Independent Pricing and Regulatory Tribunal

NSW Energy Savings Scheme - Compliance and Operation in 2015

Annual Report to the Minister

NSW Energy Savings Scheme
July 2016

ESS Energy Savings Scheme

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The Tribunal members for this report are:

Dr Peter J Boxall AO, Chairman

Ms Catherine Jones

Mr Ed Willett

Inquiries regarding this document should be directed to a staff member:

Rob McKenna (02) 9113 7782

Sarah Balmanno (02) 9290 8486

Independent Pricing and Regulatory Tribunal of New South Wales
PO Box K35, Haymarket Post Shop NSW 1240
Level 15, 2-24 Rawson Place, Sydney NSW 2000

T (02) 9290 8400 F (02) 9290 2061

www.ipart.nsw.gov.au

Contents

1 Executive summary

This is the Independent Pricing and Regulatory Tribunal of NSW's (**IPART's**) seventh annual report on the NSW Energy Savings Scheme (**ESS**), as required by section 174 of the *Electricity Supply Act 1995* (**Act**). It summarises the scheme's performance, including the energy savings achieved and the compliance by Scheme Participants and Accredited Certificate Providers. It also outlines the key administration activities and developments during the 2015 calendar year.

Overall, the ESS has continued to perform well. The 2015 energy savings target was met and in general the compliance performance of both Scheme Participants and Accredited Certificate Providers was high, with some issues as noted.

We took a number of actions in 2015 to improve the administration of the ESS, which are outlined in section 5. Some of these actions involved strengthening our systems for preventing, detecting and responding to non-compliance.

Box 1.1 What is the Energy Savings Scheme?

The ESS is a state-based scheme that aims to reduce the consumption of electricity in NSW by encouraging the implementation of energy saving activities. It is established under Part 9 of the Act.

The Act sets out **annual energy savings targets** to 2025, and obliges all electricity retailers operating in NSW and other specified parties – known as **Scheme Participants** – to meet these targets by purchasing and surrendering Energy Savings Certificates (ESCs or certificates).

It also provides for parties to be accredited to create those certificates from recognised energy saving activities. These parties are voluntary participants in the ESS, and are known as **Accredited Certificate Providers**.

What is IPART's role?

IPART is both Scheme Regulator and Scheme Administrator for the ESS. The Scheme Regulator role relates to activities of Scheme Participants, while the Scheme Administrator role relates to the activities of Accredited Certificate Providers.

1.1 Energy savings target

In 2015, the ESS energy savings target was 5%. After deducting exemptions, the effective target was 4% of all electricity purchased for supply to end-users in NSW. This was equivalent to a total of 2,630,241 megawatt hours (MWh) of energy savings, or 2,788,055 certificates. Section 1.4 provides detail on how Scheme Participants have met this target.

Box 1.2 What is the ESS energy savings target?

In the ESS, the energy savings target is expressed as a percentage and is applied to each Scheme Participant's annual liable electricity acquisitions to determine its individual energy savings target for the year. The percentage of liable acquisitions, less any deductions in respect of partially exempt loads, is then converted from MWh to certificates required to be surrendered by each Scheme Participant to meet its individual target. The target started at 1% of liable acquisitions in 2009[a] and increased annually to reach 5% in 2014 and 2015. It will increase to 7% in 2016 following the recommendations of the 2015 ESS Review, and will then increase each year to reach 8.5% in 2019, after which it will remain steady until 2025.[b]

A Scheme Participant's liable acquisitions includes any electricity it purchases for supply to end-users in NSW **excluding** a specified part of the load[c] it supplies to entities in emissions-intensive and trade-exposed industries that have been granted an exemption from the ESS by the Minister for Industry, Resources and Energy.[d]

The energy savings target sets the demand for certificates by Scheme Participants in a year. Accredited Certificate Providers and their accredited energy savings projects create the supply.

a The first compliance period was the half year to 31 December 2009. The energy savings target was 0.5% for the half year or 1% as a nominal annual rate.

b The energy savings scheme target for each calendar year is set out in Schedule 5 of the Act.

c The level of exemption is specified in the relevant Ministerial Order.

d Section 119 of the Act; *Scheme Regulator Exemptions Rule No. 1 of 2016*.

1.2 Certificates created and actual energy savings achieved

Accredited Certificate Providers created 3,045,924 certificates in 2015, which is equivalent to 2,873,513 MWh of energy savings.[1] This was slightly higher than the number of certificates created in 2014, and greater than the number required to meet the energy savings target in 2015, and so increased the existing certificate surplus.

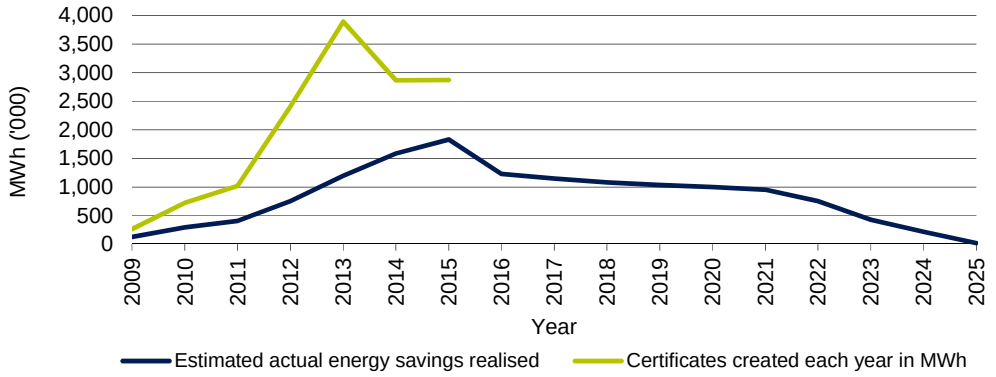
1 The certificate conversion factor (currently 1.06) is set out in Section 130 and Schedule 5B of the Act.

As in previous years, the majority of certificates created in 2015 were from lighting projects. However, there was an increase in the number of certificates created under the Sale of New Appliances method.

Since the ESS commenced in mid-2009, a total of 14,885,918 certificates have been created, equivalent to 14,043,319 MWh of energy savings. In general, certificates associated with an energy saving activity are created after the energy savings have occurred. However, the *Energy Savings Scheme Rule of 2009* (**ESS Rule)** allows certificates for certain types of activities to be created up to 25 years in advance of the savings occurring. This is known as deeming or forward-creation (see Box 2.1). When deeming and forward-creation are taken into account, we estimate that, for activities implemented during 2009-2015, the ESS has achieved (or will achieve) actual energy savings of:

- 4,362,949 MWh during the period 2009-2014
- 1,835,230 MWh during 2015, and
- 7,845,140 MWh over the next 10 years of 2016-2025 (Figure 1.1 and Table 2.1).[2]

Figure 1.1 Certificates created compared to estimated actual energy savings



1.3 Total certificate surplus and indicative certificate price

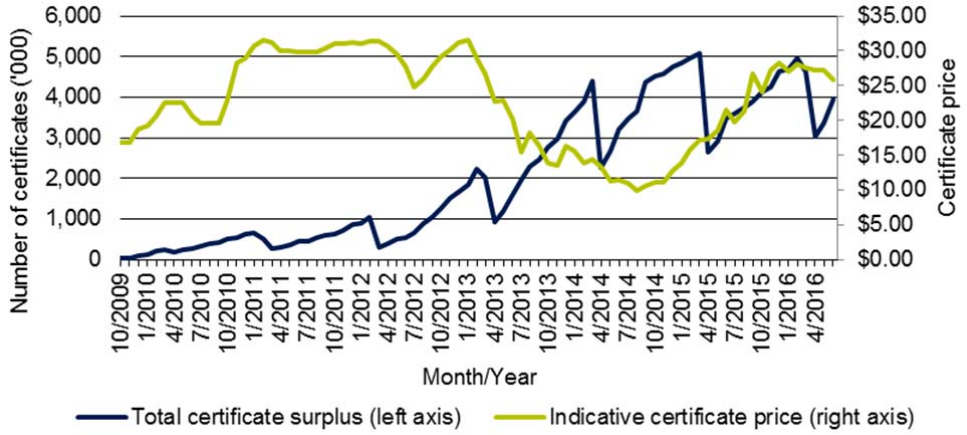
Typically, the total certificate surplus increases slowly throughout the year as Accredited Certificate Providers register certificates, and decreases sharply in March/April the following year when Scheme Participants surrender certificates to meet their compliance obligations. The total certificate surplus[3] continued to increase in 2015 due to the large number of certificates created in 2013 and supply exceeding demand each subsequent year (Figure 1.2).

2 Section 174 of the Act requires an estimate of the actual energy savings that have been, and will be, realised with regard to the number of certificates created.

3 Total surplus comprises all vintages, including 2016 certificates that are unable to be surrendered until after 30 June 2016.

The indicative certificate price[4] increased from a historical low of $9.55 in August 2014 to $28.75 in December 2015, which is the highest price since March 2013. It compares to a historical high of $32.35 in January 2013 (see Figure 1.2). We attribute the recent increase to the NSW government's announcement in October 2015 that the energy savings targets for 2016 and beyond would increase, which will increase future demand for certificates.

Figure 1.2 Total certificate surplus and indicative certificate price



Data source: ESS Registry as at 30 June 2016; The Green Room, published by Nextgen (see *www.nges.com.au*) and TFS Green Australia.

1.4 Scheme Participant compliance

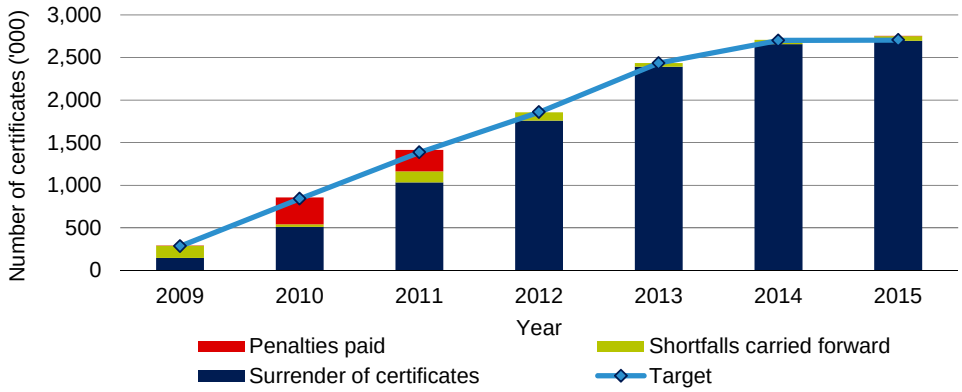
During 2015, 59 Scheme Participants were operating in NSW – an increase of six compared to 2014. Among these participants, 57 complied with their obligations:

- 39 met their individual target by surrendering certificates or carrying forward a shortfall of no more than 10% of their target
- one elected to meet its target by paying a penalty instead of surrendering certificates, and
- 17 reported no liable acquisitions in New South Wales.

One Scheme Participant had special circumstances resulting in a nil obligation, and one did not meet its individual target as it went into voluntary administration. Figure 1.3 shows how Scheme Participants have met their energy savings target each year since the ESS began.

[4] This analysis is based on price data provided by third parties, as indicated in Table 1.2. However, as it does not include price data for all certificate trades, it may not represent the actual average certificate price over time. Nevertheless, it provides a useful guide to broad movements in the certificate price.

Figure 1.3 How Scheme Participants met the energy savings target each year



1.5 Accredited Certificate Provider compliance

One of our key considerations in administering the ESS is ensuring that Accredited Certificate Providers create certificates only where genuine energy savings have occurred in compliance with the scheme requirements. We monitor their energy saving activities and use third-party audits to verify savings. We also use set-aside deeds to commit Accredited Certificate Providers to withhold from trade a percentage of the certificates they create until an audit of those certificates has been satisfactorily completed.

In 2015, the overall instances of non-compliance were low, although some significant instances were identified. We found that 221,512 certificates (of various vintages) had been improperly created, equivalent to 7.3% of all certificates created for 2015 activities (see Figure 1.4). Of the 221,512 improperly created certificates we:

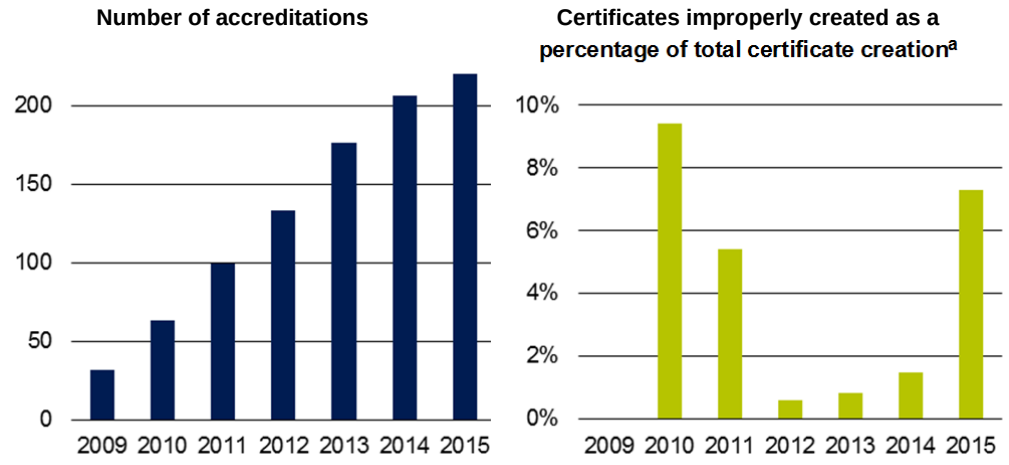
- have recovered or have a binding agreement to recover 193,950 certificates (87.6% of improperly created certificates)
- continue to seek recovery of 1,086 certificates (0.5% of improperly created certificates), and
- will not recover 26,476 certificates (11.9% of improperly created certificates).

Some of the certificates we identified in 2015 as improperly created were created from activities in previous years. This was identified through our interrogation of historical implementation data.

The two major instances of improper creation of certificates in 2015 involved:

- Energy Makeovers Pty Ltd (**Energy Makeovers**), we formed the view that it had contravened the Act, the ESS Rule and conditions of its accreditation by creating certificates prior to being nominated as the 'energy saver'. We suspended Energy Makeovers for five months (during which time it was unable to create certificates). We also sought, and Energy Makeovers agreed, to forfeit 137,278 improperly created certificates. In addition, we imposed a further condition on Energy Makeovers' accreditation, which requires that it have all certificates audited prior to registering them.
- Versace LED Low Energy Pty Ltd (**Versace**), we formed the view that it had contravened the Act by improperly creating 16,825 certificates. It had insufficient evidence to support this certificate creation. We secured Versace's agreement to voluntarily forfeit 1,501 of the improperly created certificates and enter a set-aside deed to forfeit a further 5,315 certificates.

Figure 1.4 Accredited Certificate Providers' compliance performance



a The majority of improperly created certificates have been voluntarily forfeited by Accredited Certificate Providers.

1.6 Administration activities

During 2015, we approved 24 new accreditations, most of which were for activities under the new Project Impact Assessment with Measurement and Verification method (such as the installation of more efficient equipment at commercial and industrial sites). Only one new accreditation was for commercial lighting activities, which has been the dominant activity for certificate creation since 2012.

We also approved 90 amendments to the conditions of existing accreditations,[5] which was higher than the average for previous years.[6] Many of these amendments were required to reflect changes made to the ESS Rule in 2014.

In addition, we:

- accepted 1,167 lighting products for use in the scheme, which increased the total number of products accepted since 2011 to 2,035, and
- approved two new members of the Audit Services Panel and cancelled one membership, which increased the total membership to 16 firms.

As part of our commitment to continual improvement, we implemented a number of initiatives to strengthen the administration of the ESS and improve compliance. We developed a process to better manage accreditations that have been inactive, or appeared to be ineligible to continue operating in the ESS. This resulted in the cancellation of 17 accreditations,[7] removing the risk of improper certificate creation from these accreditations.

We also improved the ESS Portal[8] to provide benefits such as:

- increased administrative efficiency
- more timely validation of Accredited Certificate Providers' activities, and
- a more user-friendly means for Accredited Certificate Providers to interact with us and track their compliance requirements.

We expanded our 'face-to-face' interaction with stakeholders to help improve their understanding of ESS requirements. In particular, we held three public consultation forums with 115 attendees. We also increased the number and scope of our workshops, and held workshops specifically for Accredited Certificate Providers.

5 Some accreditations had their conditions amended multiple times.
6 The average number of amendments each year for 2010 to 2015 is 66.
7 These accreditations were cancelled either at the request of the Accredited Certificate Provider, or as a result of a winding up order where an administrator had been appointed.
8 The ESS Portal is an online system we use to manage compliance activities.

1.7 Developments in the ESS

Following the completion of the ESS Review,[9] the NSW Government introduced changes to the ESS on 13 October 2015, which took effect on 1 January 2016.[10] These reforms included:

- expanding the ESS to include gas savings
- increasing the energy savings targets for 2016 and beyond
- extending the ESS to 2025
- increasing support for energy savings made by regional customers, and
- enhancing the scheme administration, compliance and enforcement arrangements.

In addition, we are working closely with other states and territories and the Commonwealth Government to align the operation of the ESS with other energy efficiency schemes, reduce red tape for participating businesses and address compliance issues.

1.8 Scheme Regulator and Scheme Administrator

IPART is both Scheme Regulator and Scheme Administrator of the ESS and may delegate the exercise of these functions to another person or body.[11] For the periods of 1 January to 8 March 2015 and 1 to 31 October 2015, the Tribunal exercised the functions of Scheme Regulator and Scheme Administrator. During this time, the Tribunal comprised:

- Dr Peter J. Boxall AO as Chairman, and
- Ms Catherine Jones and Mr Ed Willett as Tribunal Members.

For the remainder of 2015, the Tribunal delegated these functions to the ESS Committee, which comprised:

- Mr Ed Willett as Chairman, and
- Dr Brian Spalding and Ms Fiona Towers as Committee Members.

9 See the NSW government's *Review of the Energy Savings Scheme Position Paper*, published in October 2015 at *www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0008/580832/ESS-Review-Position-Paper.pdf*

10 These reforms were introduced via amendments to the Act and the Regulation.

11 Section 152(4) of the Act allows IPART, with the approval of the Minister, to delegate the exercise of its functions as Scheme Regulator and Scheme Administrator to another person or body.

In addition, on 25 November 2015, the Tribunal, with the approval of the Minister, delegated the exercise of a limited number of Scheme Administrator functions to the:

- General Manager, Licensing & Compliance
- Director, Licensing & Compliance (Compliance), and
- Director, Licensing & Compliance (Applications).

1.9 Report structure

The remainder of this report discusses the compliance performance and operation of the ESS during 2015 in more detail:

- Chapter 2 focuses on the scheme's performance in terms of energy savings achieved and certificate market activity
- Chapters 3 and 4 discuss the compliance performance of Scheme Participants and Accredited Certificate Providers
- Chapter 5 outlines our activities in administering the scheme, and
- the glossary provides a general guide to the terminology used in the ESS.

Further information about the ESS is available on our website.[12] For example, for an overview of the scheme, see "How the scheme works".[13]

12 See *www.ess.nsw.gov.au*.
13 See *www.ess.nsw.gov.au/How_the_scheme_works*.

2 Scheme performance

The principal objective of the ESS is to reduce the consumption of electricity by encouraging energy saving activities. To assess the scheme's performance against its objectives each year, we estimate the energy savings it has achieved and we monitor the compliance of activities from which certificates are created, as well as taking appropriate action against non-compliance to maintain scheme integrity.

2.1 Energy savings achieved

Our estimates indicate that as a result of certificates created between 2009 and 2015, the ESS achieved actual energy savings of 1,835,230 MWh during 2015, and will realise a further 7,845,140 MWh over the coming 10 years (see Table 2.1). The savings to be realised in future years relate to certificates created in advance of energy savings (see Box 2.1). To estimate these future savings, we pro-rated the certificates created in each year across the forward-creation, or deeming, period of the relevant energy saving activity.

Box 2.1 Certificate creation in advance of actual energy savings

In general, certificates are created in the year that the energy savings occurred. However, for some recognised energy savings activities (**RESAs**) certificates may represent energy savings over a number of years (up to 25 years). This is because the ESS Rule allows certificate creation in advance of actual energy savings where energy savings will continue into the future. This is referred to as 'forward creation' and 'deeming'.

Under the Project Impact Assessment Method and the Project Impact Assessment with Measurement and Verification Method, it is possible to forward-create, at the start of an activity, certificates for up to five years and 10 years, respectively, of estimated energy savings. In these cases, the certificates claimed are discounted by an approved percentage to account for some uncertainty, and may later be 'topped up' if additional actual savings can be verified.

Under the Deemed Energy Savings Method, which includes the Commercial Lighting Energy Savings Formula, the lifetime or deemed energy savings are estimated up-front and the certificates are forward-created from the time the activity is implemented. The deeming period depends on the type of activity, and ranges from 1.5 years to 25 years.

Table 2.1 Estimated actual energy savings (in MWh) by calculation method[a]

Calculation method	2009-14[b]	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025[c]	Total
Project Impact Assessment Method	**617,605**	**189,704**	**120,718**	**98,727**	**71,228**	**24,938**	**0**	**0**	**0**	**0**	**0**	**0**	**1,122,919**
Project Impact Assessment with Measurement and Verification Method	**0**	**858**	**858**	**858**	**858**	**858**	**858**	**858**	**858**	**858**	**858**	**0**	**8,575**
Deemed Energy Savings Method													
Commercial Lighting Formula	1,647,868	956,797	956,947	956,947	956,947	956,555	953,966	910,034	715,142	384,975	180,158	3,813	9,580,147
Default Savings Factors	456,712	98,451	95,936	39,140	405	319	289	120	0	0	0	0	691,372
Sale of New Appliances	2,533	37,377	37,377	37,377	37,377	37,377	37,377	37,377	37,375	37,365	36,857	11,999	387,771
Removal of Old Appliances	28,546	14,625	14,625	14,625	14,625	9,881	3,749	1,698	0	0	0	0	102,374
Installation of High Efficiency Appliances for Business	0	182	202	202	202	202	202	202	202	130	12	0	1,739
High Efficiency Motor Formula	0	135	135	135	135	135	135	135	135	135	135	135	1,480
Power Factor Correction Formula	69	22	22	22	22	22	22	17	0	0	0	0	215
1-for-1 Residential Downlight Replacement	3	4	4	4	4	4	4	4	4	4	0	0	37
Deemed Energy Savings Total	**2,135,730**	**1,107,591**	**1,105,246**	**1,048,450**	**1,009,716**	**1,004,495**	**995,744**	**949,587**	**752,857**	**422,608**	**217,163**	**15,947**	**10,765,134**
Metered Baseline Method[d]													
Baseline per unit of output	1,082,243	330,563	0	0	0	0	0	0	0	0	0	0	1,412,807
Normalised baseline	260,004	145,924	0	0	0	0	0	0	0	0	0	0	405,927
NABERS baseline	214,895	33,995	0	0	0	0	0	0	0	0	0	0	248,891
Baseline unaffected by output	52,471	26,595	0	0	0	0	0	0	0	0	0	0	79,066
Metered Baseline Total	**1,609,613**	**537,077**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,146,691**
Total estimated energy savings	**4,362,949**	**1,835,230**	**1,226,822**	**1,148,035**	**1,081,801**	**1,030,291**	**996,601**	**950,444**	**753,715**	**423,465**	**218,020**	**15,947**	**14,043,319[e]**
			(Equivalent to **7,845,140** MWh over the next 10 years of 2016 to 2025)										

Notes: Totals may not add exactly due to rounding. All data is in MWh. While the ESS closes at the end of 2025 (Section 178 of the Act), energy savings continue to be realised beyond that date.

a Methods for which certificates are yet to be created (eg, Aggregated Metered Baseline method) are not included in this table.

b For the period from 1 July 2009 to 31 December 2014.

c Section 174(2)(e) of the Act requires the Scheme Administrator to estimate energy savings over the next 10 years having regard to the number of certificates created.

d Forward creation or deeming does not apply for certificates created under the Metered Baseline Method.

e Represents total energy savings achieved under the ESS based on total certificates created.

2.2 Certificate market activity

As Scheme Administrator, we maintain publicly available registers of Accredited Certificate Providers and energy savings certificates on the ESS Registry.[14] This Registry records information about all Accredited Certificate Providers, their RESAs and the certificates they create. It also records information about each certificate, including the creator, vintage, energy saving calculation method used and activity undertaken. In addition, it tracks the status of a certificate – live (available for transfer or surrender), surrendered or forfeited.

2.2.1 Creation of certificates

The ESS Registry recorded the creation of 3,045,924 certificates of 2015 vintage,[15] which is 0.2% more than 2014 and 26.2% less than 2013 (see Figure 2.1 and Table 2.2). We attribute some of this decrease in creation to the time taken for Accredited Certificate Providers to adjust to new requirements introduced as part of changes to the ESS Rule in 2014, such as the enhanced additionality requirements[16] and the closure of the Project Impact Assessment Method for new applications.[17]

Out Performers Pty Ltd continued to be the largest certificate creator: it has created more than two million certificates since the ESS began. Other large creators were Demand Manager Pty Ltd, The Green Guys Group Pty Ltd, Low Energy Supplies and Services Pty Ltd[18] and Maxee Innovations Pty Ltd – each of which have created more than 900,000 certificates (see Figure 2.2). The 10 largest creators of certificates account for 61% of the total number of certificates created under the ESS to date.

14 See *https://www.ggas-registry.nsw.gov.au*.

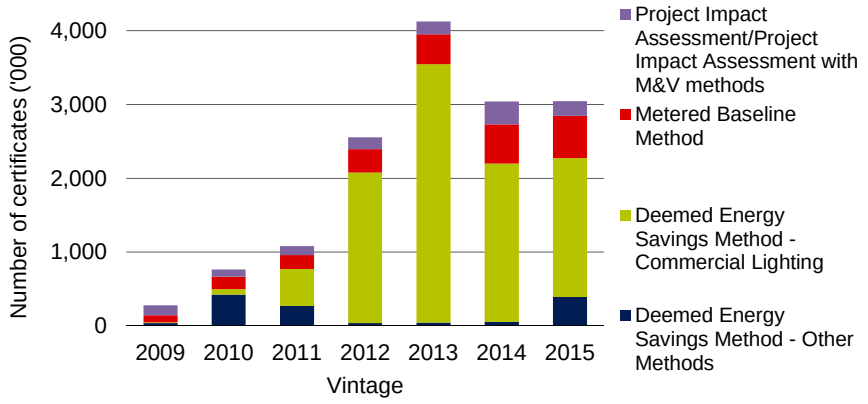
15 2015 vintage certificates relate to energy saving activities undertaken during the 2015 calendar year. However, certificates may be created up to six months after the end of the calendar year. Therefore, a 2015 vintage certificate can be registered from 1 January 2015 to 30 June 2016.

16 Certificates may now only be created where the project implementation occurs after the date the Accredited Certificate Provider is accredited for the activity, and where the Accredited Certificate Provider is the energy saver at the time of project implementation.

17 Applicants may instead apply to be accredited to use either the Project Impact Assessment with Measurement and Verification method, or one of the Metered Baseline sub-methods.

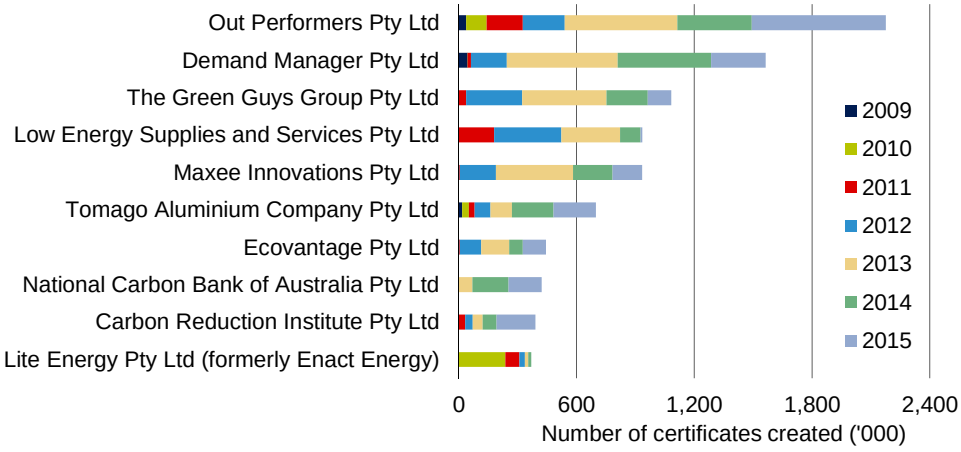
18 Note that for Low Energy Supplies and Services, a liquidator was appointed to wind up the company on 1 July 2015 and subsequently its accreditations were cancelled on 1 April 2016.

Figure 2.1 Creation of certificates by calculation method and vintage



Data source: ESS Registry as at 30 June 2016.

Figure 2.2 Accredited Certificate Providers – 10 largest certificate creators



Data source: ESS Registry as at 30 June 2016.

Table 2.2 Number of certificates created, by energy savings calculation sub-method

	2009-2012[a]	2013	2014	2015	Total
Commercial Lighting Formula (DESM)	2,625,061	3,499,593	2,146,283	1,884,019	10,154,956
Sale of New Appliances (DESM)[b]	143	83	36,174	374,637	411,037
Baseline per unit of output (MBM)	621,071	198,155	327,952	350,397	1,497,575
Project Impact Assessment Method	513,655	176,032	307,743	192,864	1,190,294
Normalised baseline (MBM)	19,185	117,878	138,541	154,679	430,283
NABERS baseline (MBM)	113,454	74,114	40,221	36,035	263,824
Baseline unaffected by output (MBM)	13,925	14,201	27,493	28,191	83,810
Removal of Old Appliances (DESM)[b]	35,196	45,500	15,220	12,600	108,516
Project Impact Assessment with Measurement and Verification Method	0	0	0	9,090	9,090
Installation of High Efficiency Appliances for Business (DESM)	0	0	0	1,843	1,843
High Efficiency Motor Formula (DESM)	0	0	0	1,569	1,569
1-for-1 Residential Downlight Replacement (DESM)[b]	0	0	39	0	39
Aggregated Metered Baseline (MBM)	0	0	0	0	0
Default Savings Factors (DESM)[b]	732,854	0	0	0	732,854
Power Factor Correction Formula (DESM)	228	0	0	0	228
Home Energy Efficiency Retrofits (DESM)	0	0	0	0	0
Total	**4,674,772**	**4,125,556**	**3,039,666**	**3,045,924**	**14,885,918**

a Refer to previous ESS Annual Reports for a breakdown of the number of certificates created during these years.

b As part of changes to the Rule in 2014, the Default Savings Factors sub-method was replaced with three new sub-methods: 1-for-1 Residential Downlight Replacement, Removal of Old Appliances and Sale of New Appliances. Some existing accreditations under the Default Savings Factors sub-method transitioned into the new sub-methods (see section 6.1 of *NSW Energy Savings Scheme - Compliance and Operation in 2014* available on our website).

Notes: Small differences in data compared to previous annual reports reflect certificates that have been forfeited after the report was released.

DESM stands for Deemed Energy Savings Method, MBM stands for Metered Baseline Method.

Data source: ESS Registry as at 30 June 2016.

Table 2.3 Number of certificates created, by project type

	2009-2012[a]	2013	2014	2015	Total
Lighting	2,784,790	3,517,033	2,202,863	1,899,223	10,403,909
New Appliances	1,102	83	36,174	374,637	411,996
Process Change/Control Systems	667,624	145,988	306,459	306,902	1,426,973
Multiple activities	106,099	189,464	258,450	277,260	831,273
HVAC	95,533	64,963	76,437	57,490	294,423
Refrigeration	34,730	39,254	42,203	40,292	156,479
Compressed Air	78,195	23,899	14,896	29,451	146,441
Building Upgrade	112,368	72,014	32,429	26,316	243,127
Fans/Pumps	30,882	21,083	30,385	19,062	101,412
Refrigerator & freezer removal	35,196	45,500	15,220	12,600	108,516
High Efficiency Motors	0	3,970	0	1,569	5,539
Power Systems	0	2,305	24,150	1,122	27,577
Showerheads	728,025	0	0	0	728,025
Power Factor Correction	228	0	0	0	228
Power Systems	0	0	0	0	0
Air Handling-Fans-Ventilation	0	0	0	0	0
Industrial Refrigeration and Freezing	0	0	0	0	0
Number of certificates created each year	**4,674,772**	**4,125,556**	**3,039,666**	**3,045,924**	**14,885,918**

a Refer to previous ESS Annual Reports for a breakdown of the number of certificates created during these years.

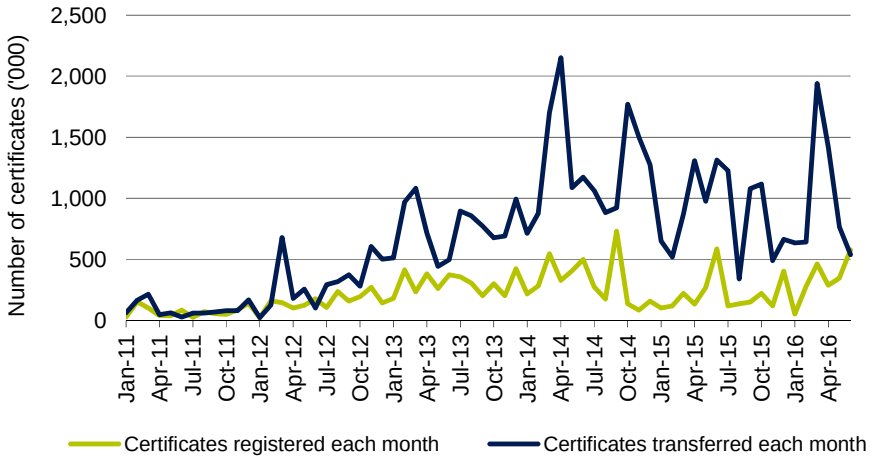
Note: Small differences in data compared to previous annual reports reflect certificates that have been forfeited after the report was released.

Data source: ESS Registry as at 30 June 2016.

2.2.2 Certificate registration activity

Monthly certificate registration has varied considerably over time (see Figure 2.3). In 2015, the average monthly certificate registration was 215,082, with peaks in June (586,121 certificates registered) and December (403,343 certificates registered).

Figure 2.3 Number of certificates registered and transferred each month for 2011-2016



Source: ESS Registry as at 30 June 2016.

2.2.3 Transfer of certificates

During 2015, the ESS Registry recorded 1,017 transfer events, involving 10.6 million certificates.

The volume of certificates transferred has increased substantially since the period prior to 2013, when the number of certificates transferred each year was similar to the number of certificates registered. In contrast, the annual number of certificates transferred in 2014 and 2015 was approximately four times the number of certificates registered in both of those years (see Figure 2.3).

2.2.4 Surrender of certificates

The surrender of certificates occurs where an owner offers valid certificates for surrender which IPART accepts and cancels in the ESS Registry (removing them from the market), typically to meet an obligation. The ESS Registry recorded the surrender of 2,706,669 certificates for 2015. Almost all were surrendered by Scheme Participants to meet their compliance obligations. The remaining 261 certificates were surrendered (forfeited) by an Accredited Certificate Provider for compliance purposes.

2.2.5 Forfeiture of certificates

The voluntary forfeit of certificates occurs where certificates that are considered invalid are cancelled in the ESS Registry (removing them from the market) at the request of the Accredited Certificate Provider or under a set-aside deed agreement.[19] There were 51 instances where Accredited Certificate Providers voluntarily forfeited certificates in 2015, involving 54,591 certificates. These certificates were forfeited to:

- address improper certificate creation identified through audit
- correct errors identified during the certificate registration process, such as registering a certificate as the incorrect vintage, or
- correct errors identified by the Accredited Certificate Provider.

2.2.6 Certificates available for surrender in future compliance years

At 30 June 2016, there were 3,265,220 certificates of 2015 vintage or older available for surrender in future compliance years. This figure is the sum of valid certificates created, less certificates surrendered since the scheme began, plus any revived certificates that remain live and available for surrender (see Table 2.4).

Table 2.4 Supply and surplus of certificates

Year	Total certificates created[a]	Total certificates surrendered	Surplus for the compliance year	Revived certificates[b]	Cumulative surplus
2009	276,942	148,928	128,014	0	128,014
2010	764,385	651,655	112,730	0	240,744
2011	1,079,407	1,063,564	15,843	0	256,587
2012	2,554,038	1,885,240	668,798	0	925,385
2013	4,125,556	2,491,055	1,634,501	0	2,559,886
2014	3,039,666	2,700,190	339,476	26,603	2,925,965
2015	3,045,924	2,706,669	339,255	0	3,265,220

a Small differences in data compared to previous annual reports reflect certificates that have been forfeited after the report was released.

b See section 3.3 of *NSW Energy Savings Scheme – Compliance and Operation in 2014* available on our website.

Data source: ESS Registry as at 30 June 2016.

Further information about creation, transfer and surrender of certificates is available on the ESS Registry.[20]

[19] In some cases, certificates were identified as invalidly created after the Accredited Certificate Provider had transferred them to another owner. In these cases, other valid certificates owned by the Accredited Certificate Provider at the time were cancelled to meet the forfeit.

[20] See *https://www.ggas-registry.nsw.gov.au*.

3 Compliance by Scheme Participants

Scheme Participants include all holders of NSW electricity retail licences; NSW electricity generators that supply directly to retail customers in NSW; and market customers in NSW that purchase electricity directly from the National Electricity Market. Scheme Participants have legislated obligations under the scheme (see Box 3.1). To assess each participant's compliance performance each year, we check whether it met these obligations, including meeting its individual energy savings target and submitting its Annual Energy Savings Statement (**AESS**) by the compliance date.

Box 3.1 Scheme Participant obligations

Scheme Participants' key compliance obligations include:

- Calculating their individual energy savings target for the year.
- Meeting their individual energy savings target by either obtaining and surrendering certificates, carrying forward an energy savings shortfall (within the 10% limit) to the next year, or paying an energy savings shortfall penalty.
- Lodging their AESS by the compliance date, and ensuring it is complete and correct, covering:
  - the Scheme Participant's calculation of its individual energy savings target
  - the particulars of its liable electricity acquisitions and any deductions in respect of exempt loads
  - the extent to which it met the target by surrendering certificates
  - any energy savings shortfall it is carrying forward, and
  - any penalty it is required to pay.
- Lodging an independent audit report of the AESS, if required.[a]

We assess each AESS by reviewing the data it contains (and any audit report), cross-checking certificate numbers with the ESS Registry, and undertaking a reasonableness check. Where an error or misstatement is identified, the Scheme Regulator may make an amendment. We advise Scheme Participants that the certificates they have offered for surrender have been accepted on the ESS Registry, and of any energy savings shortfall penalties they must pay.

a An audit is typically required if the AESS includes data about liable acquisitions from non-market sources or seeks exemptions for any electricity loads (see sections 3.2 and 3.4). The exempt person must provide details of their exempt load to the electricity retailer in order to claim the exemption.

3.1 Scheme Participants' performance

During 2015, there were 59 Scheme Participants in the ESS (compared to 53 in 2014), including 55 retail electricity suppliers, three direct suppliers, and one market customer. All except one Scheme Participant met their obligations (Table 3.1).

Table 3.1 Scheme Participants' performance in 2015

Surrendered certificates to fully meet their individual energy savings target	32
Not required to surrender certificates as no direct purchases or sales of electricity were made	17
Surrendered certificates to meet at least 90% of their target and carried forward a shortfall of no more than 10% of their target to 2016[a]	7
Elected to carry forward a shortfall of <10% of their target and pay penalty for the remaining shortfall[b]	1
Did not submit an AESS and did not surrender certificates[c]	1
Other[d]	1
Total Scheme Participants	**59**

[a] See section 3.3.

[b] Sanctuary Energy Pty Ltd (see section 3.3).

[c] GoEnergy Pty Ltd.

[d] Tomago Aluminium Company (see section 3.2).

The Scheme Participant that did not meet its obligations was GoEnergy Pty Ltd (**GoEnergy**). It went into voluntary administration at the beginning of 2016 and failed to submit an AESS or meet its individual energy savings target. We made a default assessment (under clauses 33(1) and 33(2) of the *Electricity Supply (General) Regulation 2014* (**Regulation**)) and issued an invoice for the amount of the resulting energy savings shortfall penalty to the administrator of GoEnergy, to whom we are an unsecured creditor.

We note that one retailer, Savant Energy Power Networks Pty Limited (**Savant Energy**), did not comply with the requirement to submit an AESS by the compliance deadline. We wrote to Savant Energy noting the non-compliance and it subsequently submitted a signed copy of its AESS (as a nil return) after the compliance deadline. Given this participant is a new retailer, and it subsequently complied with its obligations, the Scheme Regulator decided not to take any further action for its late submission. Other minor compliance issues included:

- OC Energy Pty Ltd and Powershop Australia Pty Limited did not comply with the requirement to submit an AESS by the compliance date of 30 April 2016, but did so shortly after this date.
- AGL Macquarie Pty Limited was given an extension to the deadline to submit its AESSuntil mid-June, which it met.

As discussed in section 1.1, the energy savings target for 2015 was equivalent to 2,788,055 certificates. Table 3.2 reconciles the certificates required to meet Scheme Participants' combined compliance obligation for 2015 with the certificates they surrendered. Table 3.3 summarises the compliance performance of individual Scheme Participants.

Table 3.2 Reconciliation of certificates required to meet combined compliance obligations and certificates surrendered, 2015

Certificates required to meet 2015 compliance obligations	**2,788,055**
Add: Certificates required to meet shortfalls carried forward from 2014	50,318
Less: Shortfall carried forward to 2016	(55,484)
Less: Certificate equivalent value of penalties to be paid in lieu of certificate surrender (Sanctuary Energy Pty Ltd and GoEnergy)	(4,800)
Less: Certificate equivalent value of penalties to be paid but reduced to nil[a]	(71,681)
Total certificates surrendered	**2,706,408**

a Refer to section 3.2 for further information.

Table 3.3 Individual Scheme Participant compliance in 2015

Surrendered sufficient certificates to meet 2015 energy savings target	
1st Energy Pty Ltd	Macquarie Bank Limited
Alinta Energy Retail Sales Pty Ltd	Mojo Power Pty Ltd
Aurora Energy Pty Ltd	Momentum Energy Pty Ltd
Brookfield District Energy (formerly GridX Pty Ltd)	Next Business Energy Pty Ltd
Click Energy Pty Ltd	Origin Energy Electricity Limited
Cogent Energy Pty Ltd	Origin Uranquinty
Cova U Pty Ltd	Pooled Energy Pty Ltd
COzero Energy Retail Pty Ltd	Powershop Australia
Delta Electricity[a]	Progressive Green Pty Ltd
Diamond Energy	Red Energy Pty Ltd
EnergyAustralia Pty Ltd	Simply Energy
EnergyAustralia Yallourn Pty Ltd	Stanwell Corporation
ERM Power Retail Pty Ltd	Sun Retail Pty Ltd
Infigen Energy Markets Pty Limited	Sunset Power International Pty Ltd (previously Delta Electricity up to 17 December 2015)[a]
Lumo Energy (NSW) Pty Ltd	Urth Energy Pty Ltd
M2 Energy Pty Ltd	WINenergy
Did not directly purchase or sell electricity in NSW in 2015 so were not required to surrender certificates	
ActewAGL Retail Ltd	Metered Energy Holdings Pty Ltd
Ausgrid	Neighbourhood Energy Pty Ltd
Australian Power and Gas (NSW)	OC Energy Pty Ltd
CS Energy	Ozgen Retail Pty Ltd
EDL Retail Pty Ltd	Pacific Hydro Retail Pty Ltd
ElectrAg Pty Ltd	People Energy Pty Ltd
Infigen Energy Holdings	Savant Energy Power Networks Pty Limited
International Power (Retail) Pty Ltd	Trustpower Australia Holdings Ltd
Locality Planning Energy Pty Ltd	
Surrendered certificates to meet part of 2015 energy savings target and chose to carry forward the remaining energy savings shortfall to 2016	
AGL Macquarie[a]	Blue NRG Pty Ltd
AGL Sales Pty Ltd	Powerdirect Pty Ltd
AGL Sales (Queensland Electricity) Pty Ltd	Qenergy Pty Ltd
AGL South Australia	
Carried forward part of its shortfall to 2016 and chose to pay a shortfall penalty against the remainder of its 2015 energy savings target	
Sanctuary Energy Pty Ltd	
Did not submit an annual energy savings statement	
GoEnergy Pty Ltd[b]	
Other	
Tomago Aluminium Company Pty Ltd[c]	

a A direct supplier of electricity.
b In voluntary administration.
c A market customer. See section 3.2.

3.2 Deductions for exempt loads

Under Section 119 of the Act, the Minister can grant exemptions from the ESS for part of the electricity load used by entities in emissions-intensive and trade-exposed industries or activities.[21] The entities with an exemption are listed in a Ministerial Order published each year in the Government Gazette.[22,23] Scheme Participants that supply electricity to these entities are entitled to deduct the exempt portion of their sales when calculating their annual liable acquisitions, thereby reducing their individual energy savings target (in MWh).

During 2015, 25 entities claimed exemptions for 31 specified locations, including:

- **Nine locations with exemptions for 60% of the load**. The activities undertaken at these locations included the production of polyethylene, glass containers, high purity ethanol, reconstituted wood-based panels, hydrogen peroxide, magnetite concentrate and tissue paper.
- **21 locations with exemptions for 90% of the load**. The activities undertaken at these locations include the manufacture of paper, newsprint, packaging and glass wool, the production of chlorine gas, sodium hydroxide, lime, clinker, magnesia, ethylene and polyethylene, coke and iron, as well as integrated iron and steel making, rolling and aluminium smelting and petroleum refining.
- **One location with an exemption for 100% of the load**. The activity undertaken at this location is aluminium smelting.

Twelve Scheme Participants supplied electricity to these entities at these locations. In total, the deductions they claimed for exempt loads represented approximately 23% of the total electricity supplied in NSW in 2015.

There was one matter of note in relation to deductions for exempt loads, which concerned Tomago Aluminium Company (**Tomago**).

Due to an anomaly in the Ministerial Order declaring exemptions from the ESS for 2015, the Scheme Regulator amended Tomago's assessment of its liability to pay an energy savings shortfall penalty for 2015. The anomaly had the consequence that part of Tomago's load was assessed to be not exempt from the ESS. This, in turn, meant that Tomago technically did not meet its individual energy savings target and became liable to pay an energy savings shortfall penalty for 2015.

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21 These entities must provide details of their exempt load to the electricity retailer in order to claim the exemption. The retailer then deducts this proportion of the load from its annual liable electricity acquisitions, thereby reducing its individual energy savings target (in MWh). It is then a matter for the exempt party and the retailer to negotiate any adjustment to pass through costs.

22 The Ministerial Order lists each exempt entity (company or business name), the trade exposed activity it undertakes, the site where the activity takes place, and the proportion of the load that is exempt under the ESS (either 60%, 90% or 100%).

23 The amended Ministerial Order published on 30 December 2014 applied for the 2015 year. See NSW Government Gazette no. 131 of 2014 at *www.nsw.gov.au/gazette*.

However, the Scheme Regulator had regard to the policy intent of the ESS that emissions-intensive, trade-exposed industries like aluminium smelting should be exempt from the ESS. It also had regard to the fact that Tomago had become liable to pay an energy savings shortfall penalty due to an anomaly in the Ministerial Order, rather than because of any government decision to deliberately depart from that long-established policy. The Scheme Regulator therefore exercised its discretion to reduce Tomago's liability to pay an energy savings shortfall penalty for 2015 to nil. The Act has now also been amended to ensure it reflects the long established policy for future compliance years.

More information on the Ministerial Order and the Exemptions Rule is available on our website.[24]

3.3 Energy savings shortfalls carried forward and shortfall penalties paid

A Scheme Participant with an energy savings shortfall in a given year can elect to carry forward at least some of this shortfall to the next year – up to a maximum of 10% of its individual energy savings target. Any shortfall carried forward must be met in the following compliance year.

In 2015, seven Scheme Participants elected to carry forward a total of 55,484 certificates to the 2016 compliance year. This represents around 2% of Scheme Participants' combined compliance obligation for 2015.

One of these Scheme Participants (Sanctuary Energy Pty Ltd) elected to carry forward 9.9% of its shortfall to 2016 and pay the penalty against the remainder of its 2015 individual energy savings target.

3.4 Audits of Annual Energy Savings Statements

As Scheme Regulator, we streamlined the requirements related to auditing AESSs in 2015. Previously, all Scheme Participants were required to have their AESS audited by a member of the ESS Audit Services Panel, and submit the audit report alongside the AESS unless they had applied for, and been granted, an exemption. Now, Scheme Participants are only required to have their AESS audited where the statement includes either of the following data inputs:

- data relating to non-market purchases, or
- data relating to exempt electricity loads (ie, in relation to emissions-intensive trade-exposed exemptions).

[24] See *www.ess.nsw.gov.au/Scheme_Participants*.

In 2015, 28 Scheme Participants had their AESSs audited. These audits were undertaken by members of the ESS Audit Services Panel in early 2016, prior to the compliance deadline of 30 April 2016, and verified that:

- inputs and arithmetical calculations were correct
- claims for exemptions for electricity sold to exempt parties were supported by appropriate evidence, and
- any energy savings shortfalls had been calculated correctly.

30 Scheme Participants did not have their AESS audited:

- 16 submitted nil returns,[25] and
- 14 met the audit exemption criteria outlined above.

One Scheme Participant, GoEnergy, did not submit an AESS.

[25] A nil return is an alternative form of AESS that may be submitted by Scheme Participants that made no liable acquisitions during the relevant compliance year.

4 Compliance by Accredited Certificate Providers

Accredited Certificate Providers include all organisations accredited to create certificates from RESAs in NSW, and have a range of legislated obligations. To maintain the integrity of the ESS, we actively manage their compliance with these obligations (see Box 4.2 and Chapter 5). To assess their performance, we monitor their compliance with their obligations and use independent third-party audits to verify the energy savings they claim. Where we detect non-compliance, we take action to bring Accredited Certificate Providers into compliance and ensure the integrity of energy savings certificates they create.

4.1 Accredited Certificate Providers' performance

During all or part of 2015, there were 128 Accredited Certificate Providers in the ESS holding a total of 220 accreditations. Of these, 50 providers and 76 accreditations were active and created certificates from energy saving activities at thousands of sites across NSW.[26]

Among the majority of Accredited Certificate Providers, the level of compliance was good. Most instances of non-compliance were satisfactorily addressed.

However, the number of certificates we identified this year as being improperly created increased significantly and was equivalent to 7.3% of all certificates created from 2015 activities. Some of this increase was due to improvements in our systems for detecting non-compliance. In addition, 62% of the identified certificates were improperly created by one Accredited Certificate Provider. This provider, Energy Makeovers, also failed to comply with other conditions in its Accreditation Notice. We took action to address all its non-compliance, including securing its agreement to forfeit the improperly created certificates (see section 4.5 for more detail).

We have now recovered or have a binding agreement to recover most of the improperly created certificates identified during 2015.[27] Those still to be recovered are equivalent to 0.91% of all certificates created from 2015 activities. We continue to identify and seek forfeiture of improperly created certificates, regardless of the year in which those certificates were created.

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[26] For comparison, there were 73 providers and 105 accreditations active in 2014.

[27] The recovery of improperly created certificates identified in 2015 continued during 2016.

Box 4.1 Accredited Certificate Provider obligations

Accredited Certificate Providers' key obligations include complying with the:

- requirements of the Act, the Regulation and the ESS Rule, and
- conditions of accreditation set out in their Accreditation Notices, such as engaging auditors to undertake the audits of their certificate creation and record keeping.

The Act also sets out a range of actions that constitute non-compliance with Accredited Certificate Provider obligations, and may result in apparent breach notices, or suspension or cancellation of accreditation. These include:

- contravening the conditions of accreditation (Section 138)
- improperly creating certificates (Section 133)
- obstructing the Scheme Administrator (Section 157), and
- supplying false or misleading information (Section 158).

Box 4.2 How we manage Accredited Certificate Providers' compliance

When we accredit an organisation as an Accredited Certificate Provider with respect to a RESA, we impose audit and reporting requirements as part of the conditions of accreditation. We determine these requirements using a risk management approach and with reference to our Compliance and Performance Monitoring Strategy.[a] Where we consider the risk of improper creation to be high, we may require pre-registration audits. These audits must be completed (with a satisfactory result) before the Accredited Certificate Provider can register (and sell) certificates.

We can also seek for the Accredited Certificate Provider to enter voluntarily into a set-aside deed to mitigate these risks. In general, the deed requires the Accredited Certificate Provider to:

- withhold from trade a portion of the certificates it creates[b] until an audit is completed, and
- surrender certificates that it has withheld from trade to address any improper creation identified by an audit.

From 1 January 2016, we can also require, by order, that an Accredited Certificate Provider surrender certificates.[c]

We can also suspend the accreditation of an Accredited Certificate Provider. Typically, we would consider this approach when we have serious concerns about the activities and evidence of serious instances of non-compliance.

a See *www.ess.nsw.gov.au/Audits_and_Compliance/Audit_and_compliance_guides*

b Typically, the portion to be set-aside depends on the risk rating of the accreditation, and reduces to zero after three successive audits with no material error.

c This follows the amendments made to the Regulation, in particular to clause 40(b), which took effect on 1 January 2016.

Table 4.1 Instances of non-compliance by Accredited Certificate Providers

	2010	2011	2012	2013	2014	2015
Improper creation of certificates (Section 133 of the Act)	11	14	21	45	**50**	**39**
Failing to submit a report statement by required deadline (Section 138 of the Act)	3	15	19	14	**57**	**N/A**[a]
Failing to engage an auditor by the required deadline (Section 138 of the Act)	0	1	4	3	**25**[b]	**4**
Failing to meet other Accreditation Notice conditions (Section 138 of the Act)	0	0	1	3	**0**	**1**
Total	**14**	**30**	**45**	**65**	**132**	**44**

a The requirement to submit periodic reports was removed during 2015 due to the requirement to submit implementation data before applying for certificate registration (see section 4.3).

b The higher number in 2014 was due to an extensive review of Accredited Certificate Provider compliance with audit requirements.

4.2 Improper creation of certificates

We continue to improve our systems for detecting non-compliance and this allows us to identify improperly created certificates in current and previous years. In 2015, we identified 221,512 improperly created certificates of various vintages (see Table 4.2). These instances arose for a range of reasons resulting in us taking a range of administrative responses. Nine instances were considered to be material,[28] and accounted for more than 80% of the total number of improperly created certificates. A further eight instances, which accounted for around 18%, were due to Accredited Certificate Providers creating certificates of the incorrect vintage and were identified through our interrogation of historic data.

As previously noted, to date, we have recovered or will recover all but 27,562 of the improperly created certificates through compliance action, with action underway to recover more.

Table 4.2 Improper creation of certificates identified in 2015

Type of error and means of identification	Number of instances	Number of certificates improperly created
Material error identified by audit	9	178,162
Non-material error identified by audit	22	4,083
Error identified by other means[a]	8	39,267
Total	39	221,512

a These errors involved the registration of certificates as the incorrect vintage, and were identified through our analysis of implementation data that Accreditation Certificate Providers are required to submit.

[28] Material errors are defined as an error rate that exceeds 5% of the certificates audited.

4.2.1 Reasons for improper creation

As in previous years, we found a wide range of reasons for the improper creation of certificates. These included Accredited Certificate Providers:

- using incorrect data or calculation factors
- making input errors or rounding errors in calculations
- retaining insufficient or inconsistent evidence to support certificate claims
- creating certificates before the implementation date
- not being nominated as the energy saver as at the implementation date
- not being accredited as at the implementation date
- creating certificates from a project where a reduction in service and/or production levels had occurred
- creating certificates in relation to equipment that had not been accepted for use, and
- creating certificates of the incorrect vintage.

In some instances, where certificates were created prior to equipment being accepted for use, the original certificates were voluntarily forfeited and new certificates were registered after the equipment was accepted.

4.2.2 Material instances of improper creation identified by audit

We identified nine material instances of improper creation through volumetric and periodic audits of Accredited Certificate Providers. Although this is comparable to previous years,[29] together these instances resulted in the improper creation of 178,162 certificates. In each of the nine material instances, we notified the Accredited Certificate Provider and asked it to voluntarily forfeit all improperly created certificates. In the majority of cases, the Accredited Certificate Provider agreed to this and implemented the auditor's recommendations to resolve the issues that led to the over-creation (see Table 4.3 for more detail).

In addition, in four pre-registration audits, we identified material errors in the number of certificates the Accredited Certificate Provider proposed to create, which involved a total of 18,026 certificates. As a result, the affected Accredited Certificate Providers registered 18,026 certificates fewer than they initially proposed, but no certificates were improperly created as the errors were identified prior to certificate creation (see Table 4.4 for more detail).

[29] For comparison, there were six instances of material improper creation of certificates in 2014 and 2013.

Table 4.3 Material instances of improper certificate creation identified by post-registration audits

Accredited Certificate Provider	Accreditation	Number of improperly created certificates	Error rate (%)	Reason for error	Certificate forfeiture
Apathco Group Pty Ltd	Commercial and Industrial Lighting DESM	750	7.19	Insufficient evidence to support some certificate creation	Forfeited full amount
Autonomous Energy	Lighting Energy Efficiency Upgrade in Commercial Buildings	8,411	25.74	Did not meet eligibility requirements[b]	Forfeited 7,325 certificates (further recovery action pending)
Easy Being Green Pty Ltd	Commercial Lighting Project	1,651	7.15	Did not meet eligibility requirements and created certificates of incorrect vintage	Forfeited 37 certificates[a]
Energy Makeovers Pty Ltd	Aggregator Appliance Retail Sales	137,378	78.92	Refer section 4.5	Refer section 4.5
Global Sustainability Initiatives Pty Ltd	ABESP Commercial Lighting Replacement Program	983	7.60	Insufficient evidence to support some certificate creation[c]	Forfeited 636 certificates[a]
Knowledge Global Pty Ltd	Hotels Energy Efficiency Verification Program	1,808	15.90	'Duplicate' certificate creation	Entered a set-aside deed to forfeit certificates over time
Oakley Greenwood Pty Ltd	High Pressure Grinding Rolls	1,672	9.26	Error in energy savings calculations	Forfeited the full amount
Robert F McMahon & Associates Pty Ltd t/as Energy Conservation	Energy Conservation Lighting Projects	8,684	29.30	Created certificates of incorrect vintage	Forfeited the full amount
Versace LED Low Energy Pty Ltd	Commercial Lighting Upgrade Program	16,825	56.14	Insufficient evidence to support some certificate creation	Forfeited 1,501 certificates and entered a set-aside deed to forfeit a further 5,315 certificates over time[a]
Total	**9**	**178,162**			

a In some instances Accredited Certificates Providers were not required to forfeit the full number of improperly created certificates due to the circumstances in each case.

b Certificate creation was prior to the implementation date and Autonomous Energy did not obtain a nomination to be the energy saver before the implementation date.

c The certificate creation for a 'whole of site' project included energy savings for a previous commercial lighting implementation for which another Accredited Certificate Provider had created certificates.

Table 4.4 Material errors in proposed certificate creation identified by pre-registration audits

Accredited Certificate Provider	Accreditation	Number of certificates	Error rate (%)	Reason for error
Apathco Group Pty Ltd	Commercial and Industrial Lighting DESM	1,614	42.01	Lack of acceptance of equipment[a]
Demand Manager Pty Ltd	Lighting Aggregation Project – PIAM	4,661	10.64	Changes to some sites meant they were no longer eligible for certificate creation
Roads and Maritime Services	Traffic Light Globe Replacement Project	2,003	7.46	Errors identified in records for some implementations[b]
Tooheys Pty Ltd	Tooheys Lighting Upgrade	9,748	50.68	Lack of acceptance of equipment[a] and small discrepancies in the number of lights used in some calculations
Total	**4**	**18,026**		

a Equipment that is classified in the ESS Rule as an emerging lighting technology needs to be accepted for use by the Scheme Administrator.

b This error was identified as part of an audit that examined 20,000 certificates that had been created and 6,840 certificates proposed to be created. As the number of certificates identified as invalid (2,003 certificates) was less than the 6,840 proposed to be created, Roads and Maritime Services registered 2,003 fewer certificates but did not have to forfeit certificates.

4.2.3 Creation of incorrect vintage certificates

In 2015, we identified eight instances of improper creation where the Accredited Certificate Provider had created certificates of the incorrect vintage (ie, the year attached to the certificates, or vintage, was not consistent with the year in which the energy savings occurred).

These instances involved 39,267 certificates of various vintages that were identified through our analysis of the implementation data that all Accredited Certificate Providers are required to submit. As Table 4.5 shows, the instances can be divided into three groups, based on the incorrect vintage of the certificates created and the year in which the energy savings occurred.

Table 4.5 Instances of incorrect vintage certificate creation

Error group	Number of instances	Number of Accredited Certificate Providers	Number of improperly created certificates	Certificate forfeiture
1) 2015 vintage certificates created for energy savings occurring in 2014	2	2	306	Forfeiture not requested – see detail below
2) 2014 vintage certificates created for energy savings occurring in 2012 and 2013	1	1	6,415	Fully forfeited
3) 2014 vintage certificates created for energy savings occurring in 2015	5	5	32,546	Partial forfeiture – see detail below
Total	**8**	**7**[a]	**39,267**	

a One error in group 1 and one error in group 2 related to the same accreditation.

To address this type of improper creation, the Accredited Certificate Provider can voluntarily forfeit the certificates involved, and then reregister them as the correct vintage. However, reregistration is only possible if the certificate creation deadline for the correct vintage has not passed.[30]

The instances in Groups 1 and 2 were only identified after this deadline, so the improperly created certificates could not be reregistered as the correct vintage. For Group 1, we did not request that the Accredited Certificate Providers forfeit the improperly created certificates. For Group 2, we did seek forfeiture, and the Accredited Certificate Provider agreed and forfeited all 6,415 certificates.

[30] Certificates for each vintage may be registered up to six months after the end of the calendar year. This means that the deadline for registering certificates of 2015 vintage is 30 June 2016.

The five instances in Group 3 were identified before this deadline so the improperly created certificates could be reregistered. We requested these Accredited Certificate Providers to forfeit certificates equivalent to the improperly created certificates, and advised them they had the option to reregister an equivalent number of certificates as the correct vintage. In response:

- Three Accredited Certificate Providers agreed, forfeited a total of 18,296 certificates, and then reregistered the same number as the correct vintage. The certificate registration fee was paid for both the improperly created and reregistered certificates.[31]
- National Carbon Bank of Australia did not forfeit the 13,231 certificates it had improperly created, which now forms part of its compliance record.
- Low Energy Supplies and Services did not forfeit the 1,019 certificates it had improperly created, as a liquidator had been appointed to wind up the company.

To reduce instances of incorrect vintage certificate creation in the future, we improved our compliance system to prevent Accredited Certificate Providers accredited under the Deemed Energy Savings Method submitting data that results in this incorrect vintage creation (this method accounts for the majority of certificates created to date). We continue to make other improvements to our compliance systems for all methods to prevent similar issues from arising.

4.3 Failure to submit a report by the required deadline

We removed the requirement to submit periodic or annual reports from the conditions of accreditation for all Accredited Certificate Providers in 2015. This requirement was no longer needed, as amendments to the ESS Rule in 2014 introduced a new requirement for them to submit data before applying to register certificates. We retain the power to request information from an Accredited Certificate Provider at any time.

4.4 Failure to engage an auditor by the required deadline

In 2015, there were four instances where an Accredited Certificate Provider failed to engage an auditor by the required date. In each instance we wrote to the Accredited Certificate Provider notifying it that failure to engage an auditor was a breach of its conditions of accreditation and requested that it address the non-compliance.

[31] The registration fee was $0.70 per certificate during 2015 but increased to $0.80 per certificate from 1 January 2016.

We also took action to reduce non-compliance with this condition of accreditation in the future. This included an administrative process to amend the conditions of accreditation of all Accredited Certificate Providers to make audit requirements clearer, and the implementation of a system to remind Accredited Certificate Providers of their approaching audit deadlines.

4.5 Failure to meet other Accreditation Notice conditions

During 2015, there was one instance of an Accredited Certificate Provider, Energy Makeovers, failing to meet its other conditions of accreditation. Acting on information provided to us, and through subsequent investigations, we suspended the accreditation of Energy Makeovers as an Accredited Certificate Provider on 29 September 2015, in relation to its *Aggregator Appliance Retail Sales* RESA. We formed the view that Energy Makeovers had contravened the Act, the ESS Rule and conditions of its accreditation by creating certificates prior to being nominated as the 'energy saver', as required under the ESS.

On 23 December 2015, we further suspended the accreditation until 29 February 2016. In total, Energy Makeovers' accreditation was suspended for a period of approximately five months, during which it was unable to create certificates. We sought, and Energy Makeovers agreed, to:

- forfeit 137,378 certificates over a specified timeframe
- formalise its agreement to forfeit these certificates in a set-aside deed,[32] and
- a further condition being imposed on its accreditation, requiring it to comply with the terms of this voluntary agreement.

In addition, to mitigate the risk of improper creation in the future, we imposed a further condition on Energy Makeovers' accreditation that requires it to have all certificates audited prior to their registration.

As at 30 June 2016, Energy Makeovers had forfeited 87,616 of the 137,378 certificates, in line with the terms of the set-aside deed.

[32] This set-aside deed requires Energy Makeovers to withhold from trade a portion of the certificates it creates until they have been audited.

5 Scheme administration

In our role as Scheme Administrator, we continued to improve the administration of the ESS, in addition to conducting the following core activities:

- assessing applications for accreditation as an Accredited Certificate Provider
- amending existing accreditations, as required
- assessing applications to have emerging lighting technologies accepted for use in the ESS
- managing the membership of the Audit Services Panel
- conducting regular audits of Accredited Certificate Providers, and
- working with governments in other jurisdictions to align the ESS with other energy efficiency and emissions reduction schemes.

5.1 Actions to improve ESS administration

During 2015, we undertook a range of actions towards our goal of continually improving the administration of the ESS and reducing non-compliance by Accredited Certificate Providers.

5.1.1 Improving management of inactive and ineligible accreditations

We developed a process to more actively manage accreditations that have been inactive or appeared to be ineligible to continue operating in the ESS.

We identified 45 accreditations that had been inactive or appeared to be ineligible, and contacted the relevant Accredited Certificate Providers. Subsequently, we cancelled 17 of these accreditations where the Accredited Certificate Provider either:

- requested cancellation,[33] or
- was the subject of a winding up order and an administrator had been appointed.[34]

[33] Clause 42(1)(b), Regulation.
[34] Clause 42(1)(e), Regulation.

As a result, we have removed the risk of improper certificate creation from these accreditations and re-allocated resources previously spent managing these accreditations to managing active accreditations. In 2016, we are continuing to identify and actively manage accreditations that appear to be inactive or ineligible.

5.1.2 Further developing the ESS Portal

We continued to develop the ESS Portal[35] to improve the efficiency of our administration of the ESS and our interactions with Accredited Certificate Providers. In particular, we added:

- an audit management system
- an events manager that tracks key dates such as audit deadlines
- improved validation of implementation data, such as checking that key requirements of the ESS Rule are being met[36]
- functionality to integrate the ESS Portal with our records management system, and
- a system for managing applications for amendment of conditions of accreditation.

Further improvements will be completed in 2016. These include improvements to the audit management system; revisions to the implementation data submission process to reflect the requirements of amendments made to the legislation in 2016; better compliance and performance management functions; and increased reporting functionality.

5.1.3 Revising our Compliance and Performance Monitoring Strategy

We made several changes to the Compliance and Performance Monitoring Strategy in 2015 to streamline reporting and adjust some of our requirements. In particular, we:

- removed the superseded quarterly and annual reporting requirements for Accredited Certificate Providers
- adjusted the audit regimes that are set for Accredited Certificate Providers and new applicants, and
- included new requirements for the Home Energy Efficiency Retrofits method.

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35 The ESS Portal was launched for external users in November 2014. Its initial functions enabled Accredited Certificate Providers to upload data about their activities (which improved both processing times and data quality through automated data validation) and IPART to report to the Office of Environment and Heritage on scheme activity.

36 This includes checking that the implementation date occurs after accreditation, that minimum customer co-payment requirements are being met, and checking that the vintage of the certificates registered is correct.

5.1.4 Improving understanding of ESS legislation and obligations

We continued to hold in-person and online workshops for potential Accredited Certificate Providers and auditors to help applicants understand the ESS legislation and obligations it places on them.

In 2015, we held 13 online workshops and one in-person auditor workshop with 95 participants across all sessions. We revised and updated the content of our existing workshops to cover the amendments made to the ESS Rule in 2014 along with changes and enhancements to our administrative processes. We also introduced three new online workshops to cover aspects not covered by the existing workshops.

In addition, we held three in-person consultation forums in 2015 with 115 participants. These follow on from our inaugural consultation forum in December 2014. We amended administrative processes in response to useful feedback received at the forums from both Accredited Certificate Providers and auditors. We hold these forums regularly to improve the administration of the ESS, to discuss current issues, and assist us to be more efficient and effective.

Further information about our workshops and forums, and registration for all of our events, is available on our website.[37]

5.2 Approvals of new accreditations

To be accredited as an Accredited Certificate Provider, an applicant needs to provide sufficient information to demonstrate that it meets the eligibility requirements.[38] The applicant also needs to demonstrate that it will be able to implement a RESA and calculate energy savings in accordance with one of the calculation methods set out in the ESS Rule (see Box 5.1). Once an application is deemed complete and the application fee is paid, we review the information provided against the requirements of the Act, the Regulation, the ESS Rule and our published policies.

During 2015, we approved 24 new accreditations, including:

- 17 using the new Project Impact Assessment with Measurement and Verification Method. This method covers a broad range of activities that involve energy savings at commercial and industrial sites.
- One using the Commercial Lighting Formula, which is a sub-method of the Deemed Energy Savings Method and involves replacing inefficient lights with more efficient lights. It is simple to apply, and makes use of deeming (claiming future energy savings) at the time of certificate creation.

[37] See *www.ess.nsw.gov.au/online_workshops*.
[38] Clause 38, Regulation.

- Four using the other sub-methods of the Deemed Energy Savings Method. These methods cover activities such as the sale or installation of more energy efficient appliances, and power factor correction activities.
- Two using the Metered Baseline Method, which covers activities such as upgrades to high efficiency motors or installing control systems on existing fans or motors.

As Figure 5.1 shows, the number of new accreditations in 2015 was lower than in previous years. There was also a shift in the calculation methods used in new accreditations, away from the Commercial Lighting Formula to the Project Impact Assessment with Measurement and Verification Method. However, the Commercial Lighting Formula under the Deemed Energy Savings Method continues to be the dominant calculation sub-method across all current accreditations.

Figure 5.1 New accreditations each year by calculation method

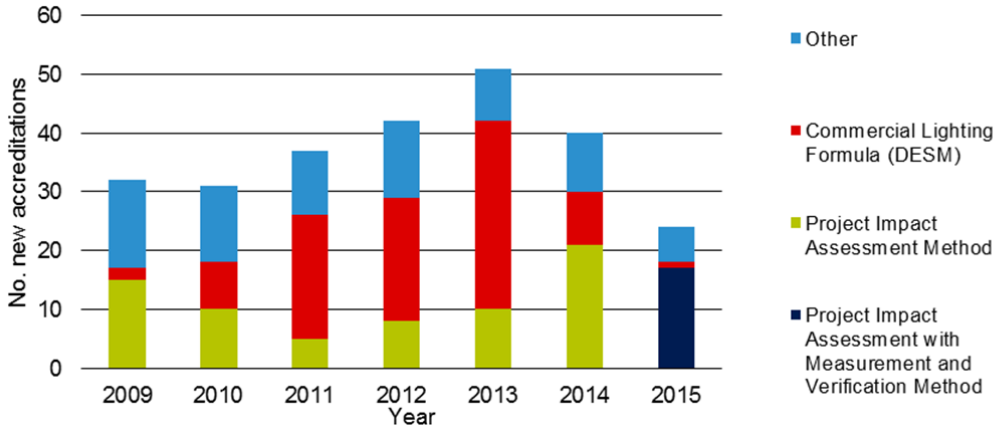

Figure 5.2 Current accreditations by calculation sub-method as at 31 December 2015

Method	Number of accreditations
Commercial Lighting Formula (DESM)	80
Project Impact Assessment Method	50
Project Impact Assessment with Measurement and Verification Method	17
NABERS baseline (MBM)	11
Baseline unaffected by output (MBM)	10
Default Savings Factors (DESM)	5
Project Impact Assessment Method & Project Impact Assessment with Measurement and Verification Method[a]	5
Sale of New Appliances (DESM)	4
1-for-1 Residential Downlight Replacement (DESM)	4
Baseline per unit of output (MBM)	4
Normalised baseline (MBM)	3
Power Factor Correction Formula (DESM)	2
Installation of High Efficiency Appliances for Business (DESM)	2
Default Savings Factors (DESM) & 1-for-1 Residential Downlight Replacement (DESM)[a]	1
High Efficiency Motor Formula (DESM)	1
Removal of Old Appliances (DESM)	1
Total	**200**

a These accreditations comprise both calculation methods.

Notes: Residential lighting and whitegoods includes three sub-methods under the Deemed Energy Savings Method: Default Savings Factors, 1-for-1 Residential Downlight Replacement and Sale of New Appliances.

DESM stands for Deemed Energy Savings Method, MBM stands for Metered Baseline Method.

Our average time for processing accreditation applications was 87 calendar days. This compares with 72 days in 2014, 103 days in 2013 and 125 days in 2012.[39] The increase in the average processing time in 2015 relative to 2014 is primarily due to the substantial number of applications under the new Project Impact with Measurement and Verification Method, which is more complex than other methods.

Further information about Accredited Certificate Providers and their accreditations is available from the ESS Registry.[40]

Further information about the application process is available on our website.[41]

39 Processing times include days taken by the applicant to respond to requests for information.

40 See *https://www.ggas-registry.nsw.gov.au*.

41 See *www.ess.nsw.gov.au/How_to_apply_for_accreditation*.

Box 5.1 How do the calculation methods relate to energy saving activities?

The ESS Rule outlines how energy savings, and consequently certificates, are determined. It comprises four calculation methods, some of which include a number of sub-methods, that detail how energy savings are measured and calculated depending on the type of energy saving activity.

The **Deemed Energy Savings Method** provides a wide range of energy savings activities, most of which can be applied in the residential sector. These calculation methods deem that energy savings commence at implementation and continue into the future (see Box 2.1). Deemed methods are specific to the type of activity as follows:

- **Sale of New Appliances** encourages retailers to sell energy efficient appliances over less efficient ones.
- **Commercial Lighting Energy Savings Formula** encompasses the replacement of inefficient lights with more efficient lights.
- **High Efficiency Motor Energy Savings Formula** offers an incentive for purchasers of motors to choose high efficiency models.
- **Power Factor Correction Energy Savings Formula** covers the installation of capacitors to more efficiently manage the power supply to commercial or industrial sites.
- **Removal of Old Appliances** encourages the removal and destruction of old inefficient fridges and freezers.
- **Home Energy Efficiency Retrofits** provides for activities that improve the energy efficiency in homes and small businesses.
- **Installation of High Efficiency Appliances for Business** covers the installation of energy efficient heating, cooling and refrigeration units.

The **Project Impact Assessment Method** is designed to calculate energy savings from an engineering assessment or from modelling of reduced electricity consumption of an activity. This method is not available for activities that are implemented after 30 October 2015, as the new **Project Impact Assessment with Measurement and Verification** method provides more rigour around the calculation of energy savings using modelling and measurement for the same activities.

The **Metered Baseline Method** encompasses a range of sub-methods designed to achieve energy savings by measuring electricity consumption before and after an activity is carried out. This includes the **NABERS baseline** method, which uses commercial buildings ratings from the National Australian Built Environment Rating System to measure improvements in energy efficiency. The **Aggregated Metered Baseline** method provides for measured energy savings across a group of electricity users using statistical techniques.

5.3 Amendment and cancellation of accreditations

From time to time, we amend the conditions of accreditation imposed on Accredited Certificate Providers. During 2015, we approved amendments to the conditions of 90 existing accreditations.[42]

Most of the amendments were to:

- change the limit on the number of certificates that can be created and the audit regime
- reflect changed requirements resulting from amendments to the ESS Rule in 2014, or
- reflect the change of an organisation name.

We also cancelled 19 accreditations, including 17 accreditations cancelled as a result of our more active management of accreditations that appeared to be inactive and ineligible (see section 5.1.1).

5.4 Approvals for emerging lighting technologies

Applicants can apply to have emerging lighting technologies (**ELTs**) accepted for use in the ESS. To be accepted, the applicant must show that the product meets lighting equipment requirements specified in the ESS Rule.

During 2015, we processed 711 ELT applications covering 1,842 products, and accepted 1,167 of these products for use in the scheme. These included 92 products approved under the Victorian Energy Efficiency Target (**VEET**) scheme that we accepted for use under the ESS. This took the total number of products accepted for use since 2011 to 2,035.

Our average time for processing ELT applications, which includes the time for an applicant to respond to requests for further information, was 41 days. This is an improvement on 2014, when the average was 47 days.

Further information about applying for acceptance of ELTs is available on our website.[43]

42 This is the second largest number of amendments in a year after 2014.

43 See *www.ess.nsw.gov.au/Projects_and_equipment/Emerging_lighting_technologies*.

5.5 Approvals for membership of the Audit Services Panel

All audits must be undertaken by a member of our ESS Audit Services Panel, with IPART (either as Scheme Administrator or Scheme Regulator) as the principal client. Applications for panel membership may be made at any time. We assess applicants against specific selection and eligibility criteria to ensure that they have both the institutional capacity to support the audit process and lead auditors with demonstrated qualifications, skills and experience.

During 2015, we approved two new memberships to the Audit Services Panel and cancelled one. These changes increased the total number of members to 16 firms, with a total of 31 lead auditors.

We also introduced a specialised auditor category for audits of Accredited Certificate Providers using the Project Impact Assessment with Measurement and Verification method. Members of the Audit Services Panel must now apply to have their auditors approved to conduct audits in relation to this method.

Further information about the Audit Services Panel, including a list of panel members, is available on our website.[44]

5.6 Audits of Accredited Certificate Providers

Audits provide assurance that certificates have been validly created and are supported by appropriate records. They are a primary tool to maintain the integrity of the ESS.

In 2015, the Audit Services Panel undertook 83 audits of Accredited Certificate Providers, covering 61 accreditations, comprising:

- 36 volumetric audits
- 26 periodic audits
- 18 pre-registration audits, and
- three spot audits.

On average, these audits took 47 days to complete.

In comparison, there were 92 audits conducted in 2014.

[44] See *www.ess.nsw.gov.au/For_Auditors*.

Box 5.2 Why and how we audit Accredited Certificate Providers

When we accredit an Accredited Certificate Provider to carry out a RESA, we impose audit requirements as part of the conditions of accreditation. Audits provide assurance that:

- certificates have been properly created and are supported by sufficient records, and
- the number of certificates created is accurate, based on valid information that is free from material misstatement.

These auditing functions maintain the integrity of certificates created under the ESS by ensuring that certificates are created in accordance with the Act, the Regulation, the ESS Rule and conditions of accreditation.

The timing and type of audits varies by accreditation depending on our risk assessment. For example, audits may be required on a **periodic** or **spot** basis, or on a **volumetric** basis (ie, when a threshold number of certificates has been created). If the risk is assessed as high, **pre-registration** audits may be required.

Pre-registration audits are conducted prior to certificates being registered on the ESS Registry. This reduces the likelihood of invalid certificate creation, but requires the Accredited Certificate Provider to pay the audit costs before certificates can be registered and sold.

5.7 Alignment with other state or territory energy efficiency schemes

Following the ESS Review, the NSW Government is working with other jurisdictions with energy efficiency schemes to align activities and reduce red tape, while maintaining the integrity of the ESS.

This includes a number of proposed initiatives:

- expanding accrediting and crediting functions to be used in other jurisdictions,[45] and
- continuing to investigate means of harmonising methods with the VEET scheme.

Since July 2014, we have been incorporating VEET scheme approved lighting products into the ESS public list of accepted lighting products. This means that certain categories of VEET approved products may also be accepted for use under the ESS. The VEET scheme also recognises products that have been accepted for use in the ESS.

[45] Energy savings generated outside NSW could not be used to meet ESS targets.

The two scheme administrators are also working closely to address compliance issues with product acceptance. This includes investigating issues that are emerging in relation to the documentation submitted for some lighting products.

We have also refined our existing process for considering an organisation's compliance performance in the VEET scheme when it applies to be accredited under the ESS.

5.8 ESS and the Emissions Reduction Fund

The Emissions Reduction Fund was established by the Commonwealth Government to create incentives for businesses and communities across the economy to reduce greenhouse gas emissions. It covers a range of activities, some of which are also covered by the ESS – including upgrading commercial buildings and improving the energy efficiency of industrial facilities. We continue to work with the Clean Energy Regulator to ensure the two schemes operate together and complement each other. More information on the Emissions Reduction Fund is available on the Clean Energy Regulator's website.[46]

[46] See *www.cleanenergyregulator.gov.au*.

Glossary

This glossary provides a general guide to the terminology used in ESS. It is designed to be read in conjunction with the Act, Regulation and ESS Rule. This glossary should not be relied upon as a substitute for legal advice, and does not override the true definitions of these terms in the Act, Regulation or ESS Rule.

Term	Meaning
Accredited Certificate Provider	A person accredited by the Scheme Administrator to create Energy Savings Certificates relating to a Recognised Energy Saving Activity.
Act	The *Electricity Supply Act 1995*, which establishes the ESS.
Base Penalty Rate	Is listed in Schedule 5A of the Act in force at 31 December 2015.
Baseline	The level of energy consumption or energy intensity against which improvements are measured, and from which the calculation of Energy Savings Certificates is made.
Carbon Dioxide Equivalent (CO_2-e)	The standard unit for the quantification of all greenhouse gases.
Certificate Conversion Factor	Was listed in Schedule 5B of the Act as 1.06 (prior to the amendments to the Act that commenced on 1 January 2016), and was used to convert the number of MWh of Energy Savings from a Recognised Energy Saving Activity to tonnes of carbon dioxide equivalent. This was done by multiplying the MWh saved by the Certificate Conversion Factor.
Default Savings Factors	A default figure which may be used to calculate the number of Energy Savings Certificates (ESCs) for each activity listed in Schedule A of the ESS Rule. The use of Default Savings Factors allows all the energy savings associated with the activities listed in Schedule A to be brought forward to the point at which the activity takes place.
End-user Equipment	End-user equipment refers to the electricity consuming equipment, processes, or systems, including equipment directly consuming electricity and any other equipment which controls or influences the consumption of electricity.
Energy Saver	The person who has the right to create certificates for particular Energy Savings arising from an implementation of a RESA, as defined in the relevant calculation method of the ESS Rule.
Energy Savings	The calculated reduction in electricity consumption arising from implementation of a RESA and calculated according to the ESS Rule.

Term	Meaning
Energy Savings Certificate (ESC)	A transferable certificate under Part 9 of the Act, which is created in accordance with the ESS Rule. A certificate represented the Energy Savings associated with the abatement of one tonne of carbon dioxide equivalent (tCO_2-e).
ESS Rule	The *Energy Savings Scheme Rule of 2009* made by the Minister for Industry, Resources and Energy, sets out the primary eligibility requirements, calculation methodologies and arrangements for the creation of Energy Savings Certificates. This rule is amended from time to time.
Energy Savings Target	The Energy Savings Target refers to a figure, specified in Schedule 5 of the Act, that is applied to the total Liable Acquisitions in NSW to determine each Scheme Participant's Individual Energy Savings Target for each calendar year.
Energy Savings Shortfall	If a Scheme Participant fails to surrender enough Energy Savings Certificates to meet its Individual Energy Savings Target for the year, it has an Energy Savings Shortfall for that year and is liable to pay a penalty for each Energy Savings Certificate it has failed to surrender.
Exempt Electricity Load	An Exempt Electricity Load is the load attributed to a person or class of person which has been granted exemption (60%, 90% or 100%) from the scheme by the Minister, as specified in the Ministerial Order.
Implementation Date	The Implementation Date is generally the date on which the Energy Savings from the RESA commence and is defined for each calculation method in the ESS Rule.
Individual Energy Savings Target	The Individual Energy Savings Target is the value (in MWh) of energy savings that a Scheme Participant must meet each year. This target is determined by multiplying the Energy Savings Target for that year by the total liable acquisitions in that year and the certificate conversion factor.
Liable Acquisition	Any purchase of electricity by a Scheme Participant which is purchased from the Market Operator, or from parties not registered with the Market Operator for supply to end users in NSW whose loads have not been listed as Exempt Electricity Loads.
Market Operator	The entity responsible for the administration and operation of the wholesale national electricity market in accordance with the National Electricity Law (currently the Australian Energy Market Operator (AEMO)).
Ministerial Order	The Ministerial Order is published annually, or when required, and lists all emissions intensive trade exposed industries, their location and proportion of electricity load granted an exemption (either 60%, 90% or 100%) under the ESS.
National Australian Built Environment Rating System (NABERS)	A ratings methodology administered by the NABERS Administrator (currently the Office of Environment and Heritage (OEH)) which can be used to calculate Energy Savings under the Metered Baseline Method. This method can be used for new or existing buildings.
Penalty Conversion Factor	Was specified in Schedule 5A of the Act (prior to being amended on 1 January 2016), and is 0.94 for the duration of the Scheme.

Term	Meaning
(ESS) Penalty Rate	Calculated by multiplying the Base Penalty Rate per MWh by the Penalty Conversion Factor. The ESS Penalty Rate is the amount per certificate that is applied to a Scheme Participant's Energy Savings Shortfall to calculate the monetary penalty as a result of the shortfall. The ESS Penalty Rate was listed in Schedule 5A of the Act (prior to being amended on 1 January 2016).
Recognised Energy Saving Activity (RESA)	A specific activity implemented by an Energy Saver that increases the efficiency of electricity consumption or reduces electricity consumption with no negative effect on production or service levels.
Regulation	The *Electricity Supply (General) Regulation 2014*.
Retail Supplier	A Scheme Participant under the Energy Savings Scheme. Includes all holders of an electricity retail licence for operation in NSW.
Scheme Administrator	The body responsible for administering functions such as accrediting Accredited Certificate Providers, verifying Energy Savings activity and maintaining a registry of certificates. The NSW Independent Pricing and Regulatory Tribunal (IPART) is the Scheme Administrator for the Energy Savings Scheme.
Scheme Participant	A person who is required to comply with an Individual Energy Savings Target. Scheme Participants include all Retail Suppliers of electricity in NSW, any person directly supplying a customer in NSW or any person directly purchasing electricity from the Market Operator (other than a Retail Supplier).
Scheme Regulator	The body that monitors the compliance of Scheme Participants with their Individual Energy Savings Targets under the Act. The NSW Independent Pricing and Regulatory Tribunal (IPART) is the Scheme Regulator for the Energy Savings Scheme.
Victorian Energy Efficiency Target (VEET)	Similar to the ESS, the VEET scheme is a Victorian Government initiative designed to make energy efficiency improvements more affordable, contribute to the reduction of greenhouse gases, and encourage investment, employment and innovation in industries that supply energy efficiency goods and services.