IPART Independent Pricing and Regulatory Tribunal | NSW

NSW Energy Savings Scheme
Compliance and Operation in 2020

Report to the Minister

July 2021

ESS »

Tribunal Members

The Tribunal members for this report are:

Ms Carmel Donnelly, Chair
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The Independent Pricing and Regulatory Tribunal (IPART)

We make the people of NSW better off through independent decisions and advice. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Executive summary

This is the Independent Pricing and Regulatory Tribunal of NSW's (IPART's) annual report to the Minister for Energy and Environment on the NSW Energy Savings Scheme (ESS). As Scheme Regulator and Scheme Administrator, we are required to report annually on:

- the extent of compliance by Scheme Participants and Accredited Certificate Providers
- the number of Energy Savings Certificates (certificates) created and surrendered
- the estimated energy savings delivered by the scheme.

This report fulfills our statutory reporting requirements for the 2020 compliance year (1 January to 31 December 2020) and provides an overview of our operations during this period.

In 2020 the ESS continued to achieve its legislative objectives. The principal objective – to create a financial incentive to reduce energy consumption – was achieved through the energy savings target which established a demand for 4,546,509 certificates. This demand provided a financial incentive for Accredited Certificate Providers to create 4,967,296 certificates in 2020 by implementing energy savings activities. As in previous years, around three quarters of the certificates created in 2020 were due to energy savings from lighting activities in the commercial, small business and residential sectors.

Figure 1 illustrates how the objectives of the scheme – creating financial incentive to reduce energy consumption, helping households and businesses reduce energy consumption and costs, making the reduction of greenhouse gas emissions achievable at lower cost and reducing the cost of, and need for, additional energy infrastructure – were achieved in 2020.

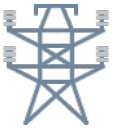
Figure 1 ESS performance against scheme objectives in 2020

Creating financial incentives to reduce energy consumption
The demand for certificates created by the energy savings target provided a financial incentive for Accredited Certificate Providers to carry out energy savings activities – representing 4,572,125 MWh of electricity savings and 309,855 MWh of gas savings.

Helping households and businesses reduce energy consumption
Households and businesses reduced electricity consumption by 3,107,554 MWh and gas consumption by 180,783 MWh in 2020 through energy savings activities implemented under the ESS.

Helping households and businesses reduce energy costs
The estimated bill savings for NSW households and businesses from reduced energy consumption was $395 million, The estimated net cost savings to NSW consumers was $264 million.

Reducing greenhouse gas emissions
2,807,785 tonnes of greenhouse gas emissions were avoided as a direct result of the energy savings realised through the ESS in 2020.



Reducing demand
Energy savings activities implemented under the scheme in 2020 reduced electricity demand which contributed to reducing the cost of and need for additional energy generation, transmission and distribution infrastructure.

Compliance by Scheme Participants and Accredited Certificate Providers was high and better than in 2019. Of the 102 Scheme Participants operating in NSW, 89 met their individual energy savings target for 2020. The remaining 13 Scheme Participants did not surrender enough certificates to meet their individual energy savings target but 11 complied with their energy savings shortfall obligation by electing to carry forward a small shortfall to 2021. The remaining 2 Scheme Participants elected to pay the shortfall penalty.

In 2020 50 active Accredited Certificate Providers were operating in the ESS. There were one or more material instances of non-compliance identified across 7 Accredited Certificate Providers. One of these instances resulted in enforcement action with 2 penalty notices issued against one Accredited Certificate Provider. As in previous years, almost all non-compliance involved improper creation of certificates, though the number of improperly created certificates was less than half the number in 2019.

The increasing number and diverse nature of Scheme Participants continues to present challenges for regulating their compliance. Similarly, while Accredited Certificate Providers' compliance is generally improving as they become more experienced in the scheme, there are a number of ongoing and emerging compliance issues related to their operations. We are addressing these compliance challenges by increasing our proactive engagement activities, improving our guidance and better targeting our compliance activity.

We estimate actual electricity savings of 3,107,554 megawatt hours (MWh) and actual gas savings of 180,783 MWh were realised under the scheme in 2020. In addition, an estimated 16,473,699 MWh of electricity savings and 856,053 MWh of gas savings will be delivered over the next 10 years from energy saving activities implemented since the scheme commenced.

Figure 2 summarises the scheme's performance against key reporting requirements for compliance year 2020. Compliance by Scheme Participants and Accredited Certificate Providers, and key certificate creation and energy savings data, are discussed further in chapters 2 to 4 of this report.

A number of scheme developments in 2020 will shape the future direction of the scheme and impact our compliance and operations, including introducing the Energy Security Safeguard (Safeguard) which came into effect in legislation passed in May 2020. The Safeguard extends the operation of the ESS to 2050 and makes provisions to expand the scheme to include a new peak demand reduction scheme (PDRS).

Chapter 5 of this report provides further detail on key scheme developments and an overview of our operations in 2020.

Figure 2 ESS performance against statutory reporting requirements during 2020

102

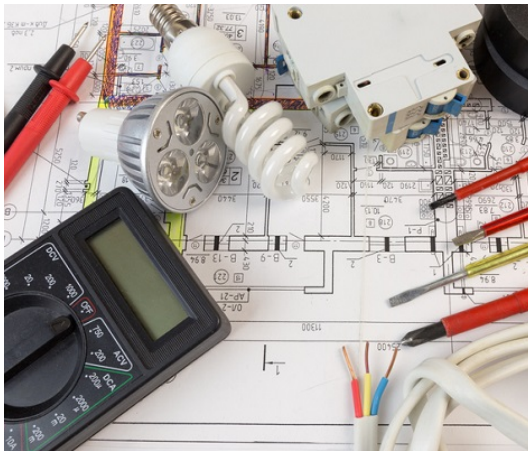
Scheme Participants

87% complied with their individual energy savings target

4.3

million certificates surrendered to meet 94.4% of overall energy savings target

Certificate surplus increased by 11% to 5.7m certificates.
Surplus for compliance year was 0.5m certificates



88

Accredited Certificate Providers

Compliance was high

5.0

million certificates created by Accredited Certificate Providers

4.5m notional MWh ESS target for 2020

equivalent to 4.5m certificates

3.1m MWh electricity and 0.2m MWh gas savings realised in 2020

16.5m MWh electricity and 0.9m MWh gas savings to be realised over next 10 years

Most Scheme Regulator and Scheme Administrator functions were delegated to the ESS Committee with some administrative functions delegated to the Secretariat

Contents

Chapter 1

Introduction

An overview of the Energy Savings Scheme, the role of IPART as Scheme Regulator and Scheme Administrator, and the key statutory reporting requirements.

01

The *Electricity Supply Act 1995* (Act), requires the Independent Pricing and Regulatory Tribunal of NSW (IPART), as Scheme Regulator of the Energy Savings Scheme (ESS), to provide an annual report to the Minister for Energy and Environment (Minister) by 31 July each year. This report addresses each of our key statutory reporting requirements (**Table 1.1**) and provides an overview of our operations – including key scheme developments and administration of the scheme – for information.

We have prepared this report for the Minister, key government agencies, and key industry stakeholders (including Scheme Participants, Accredited Certificate Providers and peak bodies), and assumed some background knowledge of the scheme. An overview of the ESS, IPART's role in regulating and administering the scheme, the governing legislation and the key reporting requirements is provided below to assist the reader. More detailed information about the ESS is available on our website.

1.1 About the ESS

The ESS reduces energy consumption in NSW by creating financial incentives for NSW households and businesses to invest in energy savings activities. Energy savings are achieved by installing, improving or replacing energy saving equipment and appliances. The ESS is established under Part 1 of Schedule 4A to the Act.

Financial incentives are in the form of tradeable Energy Savings Certificates (certificates). The Act provides for organisations – known as Accredited Certificate Providers – to be accredited to create certificates from energy saving activities recognised under the scheme. The notional megawatt hours attributed to energy savings activities determines the number of certificates that can be created. This activity creates the supply of certificates.

Under the Act, electricity retailers operating in NSW and other specified parties – known as Scheme Participants – are required to meet an energy savings target each year. Schedule 5 of the Act sets out the energy savings targets for each year to 2050. The energy savings target for a given year is a percentage of the electricity purchased by Scheme Participants for supply to end use customers in NSW during that year. Scheme Participants meet their individual energy savings target by purchasing and surrendering certificates equivalent to their target. This activity creates the demand for certificates.

1.2 Roles within the ESS

1.2.1 Role of IPART

IPART is both the 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 activities of Accredited Certificate Providers. IPART is responsible for:

- administering the scheme by applying the ESS legislation (section 1.3).
- reporting on the performance of the scheme and its participants to the Minister each year (section 1.4).

As Scheme Regulator, IPART monitors compliance of Scheme Participants with their obligations, including through independent audits.

As Scheme Administrator, IPART:

- assesses applications for accreditation to undertake eligible activities and create certificates
- assesses applications to be a Measurement & Verification Professional or member of the Audit Services Panel
- monitors compliance of Accredited Certificate Providers
- monitors the performance of Measurement & Verification Professionals and the Audit Services Panel
- assesses emerging lighting technologies and accepts them for use in the scheme
- manages an online ESS Registry and ESS Portal.

The functions of the Scheme Regulator and Scheme Administrator were exercised by the Tribunal, which comprised Dr Paul Paterson as Chair and Ms Deborah Cope and Ms Sandra Gamble as Tribunal Members.

For much of 2020 the Tribunal delegated its functions to the ESS Committee,[a] which comprised Ms Sandra Gamble as Chair and Dr Brian Spalding and Ms Fiona Towers as Committee Members.

The ESS Executive Director and ESS Directors performed certain administrative functions delegated to them by the Tribunal for administrative efficiency.

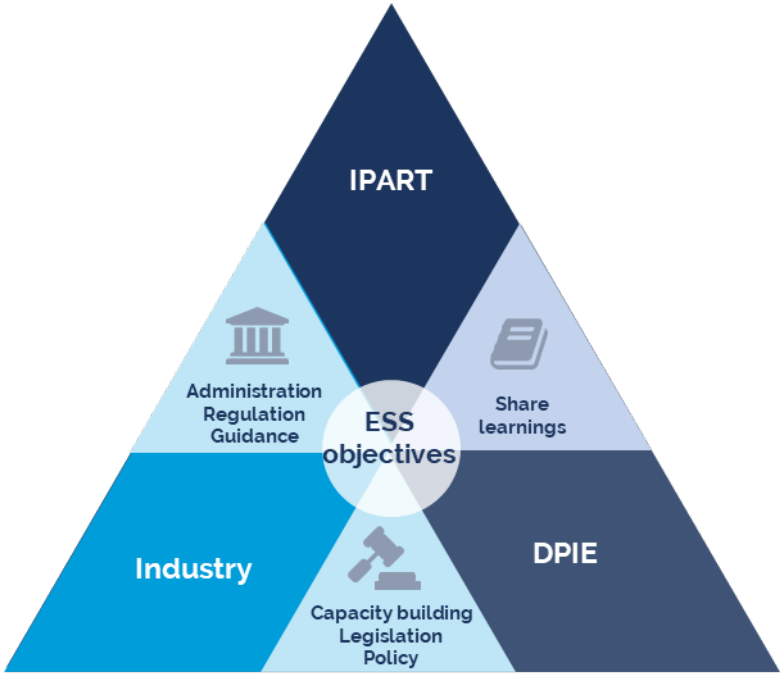
1.2.2 Key stakeholder relationships

Three key stakeholder groups contribute to the successful operation of the scheme (**Figure 1.1):**

- IPART – administers the scheme and regulates participating businesses.
- The NSW Department of Planning, Industry and the Environment (DPIE) – develops the policy behind, and maintains the legislation governing, the scheme.
- Industry – contributes in the roles of Scheme Participants, Accredited Certificate Providers, Measurement and Verification Professionals, members of the Audit Services Panel and through industry peak bodies.

[a] Clause 55(4) of Schedule 4A to 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.

Figure 1.1 ESS stakeholder relationships



1.3 ESS Legislation

We administer the ESS in accordance with 3 key pieces of legislation:

- the *Electricity Supply Act 1995,* which sets out the legal framework of the ESS and the functions and responsibilities of the Scheme Regulator and Scheme Administrator
- the *Electricity Supply (General) Regulation 2014* (Regulation), which supports the Act and describes the core functions of the Scheme Regulator and Scheme Administrator including:
  - for the Scheme Regulator, the principles governing compliance with the individual energy savings targets for Scheme Participants
  - for the For the Scheme Administrator, the requirements for accrediting and auditing Accredited Certificate Providers, and rules around the creation and transfer of certificates
- the *Energy Savings Scheme Rule of 2009* (ESS Rule), which applies to Accredited Certificate Providers and their energy savings activities and provides details about:
  - eligibility requirements
  - calculation methods for determining the number of certificates that can be created.

1.4 Reporting requirements

The Act sets out the information and data that the Scheme Regulator and Scheme Administrator must report to the Minister. **Table 1.1** lists each statutory reporting requirement, its corresponding clause in Schedule 4A to the Act and where in this report the requirement is addressed.

The Act requires the Scheme Regulator prepare and forward the annual report to the Minister by 31 July each year. The Minister is required to table the report before both Houses of Parliament as soon as practicable after receiving it.

Table 1.1 Statutory reporting requirements

Requirement of the Act	Clause of Schedule 4A	Location in report
Annual reporting requirements		
Scheme Regulator to report to the Minister on the extent to which Scheme Participants have complied with individual energy savings targets	76(1)	Section 2.1
Name of each Scheme Participant and the performance of the Scheme Participant in relation to its individual energy savings target in the year to which the report relates	76(2)(a)	Table 2.2
Total number of certificates surrendered in the year to which the report relates	76(2)(b)	Section 2.2
Total number of certificates created in the year to which the report relates	76(2)(c)	Section 4.1
Total number of certificates created in previous years but not yet surrendered	76(2)(c1)	Section 4.1.3
Assessment of the extent of any over or under supply of certificates	76(2)(c2)	Section 4.1.3
Estimate of the actual electricity and gas savings that have been realised by end users under the scheme in the year to which the report relates	76(2)(d)	Section 4.2
Estimate of the actual electricity and gas savings that will be realised by end users under the scheme in the next 10 years (based on the number of certificates created)	76(2)(e)	Section 4.2
Functions delegated by the Scheme Regulator or Scheme Administrator and the person or body to whom they were delegated	76(3)	Section 1.2.1
Other reporting requirements		
Scheme Regulator to report to the Minister on the extent to which Scheme Participants comply with obligations imposed by or under the Act	55(1)(d)	Chapter 2
Scheme Administrator to report to the Minister on the extent to which Accredited Certificate Providers comply with the Act, Regulation, ESS Rule and conditions of accreditation	57(1)(b)	Chapter 3

Chapter 2

Compliance by Scheme Participants

A report on the extent to which Scheme Participants complied with their individual energy savings targets and obligations under the Act.

02

Scheme Participants include electricity retailers, direct suppliers of electricity and market customers.[b] Each Scheme Participant has legal obligations under the Act (**Box 2.1**) to surrender certificates to meet their individual energy savings target for each compliance year. This target establishes the demand for certificates and creates the financial incentive to reduce energy consumption that underpins the scheme.

A Scheme Participant's individual energy savings target is determined by multiplying their liable acquisitions[c] during the compliance year by the Energy Savings Scheme target (ESS target) for the year. In 2020 the ESS target was 8.5% of all electricity purchased for supply to end use customers in NSW. A Scheme Participant must surrender a number of certificates equivalent to their individual energy savings target to comply with the target. A Scheme Participant that does not surrender sufficient certificates has an 'energy savings shortfall' and may be liable to pay a penalty.

In December 2020 the NSW Government provided relief to small retailers through a Ministerial Order, *the Energy Savings Scheme (Small Retailer) Order 2020* (Small Retailer Order). The Small Retailer Order reduced the individual energy savings target of eligible small retailers[d] by 100% for the 2020 compliance year. This relief was provided because small retailers would likely be unable to meet their individual energy savings target for the year, because of the impacts of the COVID-19 pandemic.

In 2020 compliance by Scheme Participants was high. Of the 102 Scheme Participants operating in the scheme (**Table 2.1**), 89 complied with their individual energy savings target. The remaining Scheme Participants elected to either carry forward a small shortfall to 2021 or pay the shortfall penalty.

Table 2.1 Scheme Participants by type

	2016	2017	2018	2019	2020
Retailers	58	62	71	87	**97**
Direct suppliers of electricity	3	2	2	2	**1**
Retailer and direct supplier of electricity	–	–	–	–	**1**
Market customers	1	1	1	1	**3**
Total number of Scheme Participants	**62**	**65**	**74**	**90**	**102**

The number of Scheme Participants continues to rise each year. The increasing number of Scheme Participants presents challenges for us in regulating their participation in the scheme. We found newer Scheme Participants often do not understand, or are not aware of, their obligations. We continue to increase our support for Scheme Participants to help them understand and meet their compliance obligations. For the 2020 compliance year this included:

- facilitating an information session with Scheme Participants to outline their obligations under the scheme and the process and requirements for complying with these obligations

[b] Clause 4(2) of Schedule 4A to the Act defines all parties required to participate in the scheme

[c] A liable acquisition is any purchase of electricity by a Scheme Participant for supply to end use customers in NSW (Clause 10 of Schedule 4A to the Act)

[d] Clause 78(4) of Schedule 4A to the Act defines a small retailer as a Scheme Participant who supplies electricity to no more than 5,000 end users in NSW and makes liable acquisitions not exceeding 30,000 MWh of electricity.

- contacting Scheme Participants prior to the 30 April compliance deadline to remind them of their obligations under the scheme and prompt them to submit an Annual Energy Savings Statement or nil return.

Box 2.1 Scheme Participant obligations

To meet their obligations under the Act, each Scheme Participant that has made liable acquisitions in the compliance year must:

- calculate their individual energy savings target for the year
- meet their individual energy savings target by obtaining and surrendering certificates, or alternatively satisfy their obligations by:
  - carrying forward a maximum 10% energy savings shortfall to the following compliance year
  - paying an energy savings shortfall penalty
- lodge their Annual Energy Savings Statement by the compliance deadline, including:
  - the calculation of its individual energy savings target
  - the particulars of its liable 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
- lodge an independent audit report of the Annual Energy Savings Statement, if required.[a]

a. An audit is typically required if the Annual Energy Savings Statement includes data about liable acquisitions from non-market sources or seeks exemptions for any electricity loads (see section 2.4 and section 2.5). The electricity retailer must obtain details of the exempt load from the exempt entity to claim the exemption.

2.1 Scheme Participants' performance

In 2020 compliance by Scheme Participants with their individual energy savings targets was high (**Table 2.2**). Of the 102 Scheme Participants, 89 complied with their individual energy savings target: 20 surrendered sufficient certificates to meet their target; 36 had zero liable acquisitions; and 33 qualified for the Small Retailer Order and had their individual energy savings target reduced to zero. Of the remaining 13 Scheme Participants, 11 complied with their energy savings shortfall obligations by carrying forward a shortfall penalty to 2021 and 2 elected to pay a penalty. [e]

Table 2.2 Scheme Participant compliance with individual energy savings target

	2016	2017	2018	2019	2020
Number of Scheme Participants	62	65	74	90	102
Number of Scheme Participants that complied with their individual energy savings target[a]	52	54	63	73	89
Number of Scheme Participants that elected to carry forward an energy savings shortfall	6	7	8	7	11
Number of Scheme Participants that elected to pay a penalty	2	1	2	10	2
Number of Scheme Participants that failed to comply with their energy savings shortfall obligations	2	3	1	0	0

a. Includes Scheme Participants with an individual energy savings target of zero

Table 2.3 summarises the compliance performance of all Scheme Participants with their 2020 individual energy savings target obligations.

Table 2.3 Scheme Participant compliance with individual energy savings target in 2020

Compliance performance	Name of Scheme Participant	
Surrendered sufficient certificates to meet their 2020 individual energy savings target	1st Energy Pty Ltd Alinta Energy Retail Sales Pty Ltd Click Energy Pty Ltd CovaU Pty Limited CSR Building Products Limited Energy Locals Pty Ltd EnergyAustralia Pty Ltd EnergyAustralia Yallourn Pty Ltd Infigen Energy Markets Pty Limited M2 Energy Pty Ltd (trading as Dodo Power & Gas and trading as Commander Power & Gas)	Macquarie Bank Limited Momentum Energy Pty Limited Powershop Australia Pty Limited Progressive Green Pty Ltd (trading as Flow Power) ReAmped Energy Pty Ltd Shell Energy Retail Pty Ltd Stanwell Corporation Limited Sumo Power Pty Ltd Sunset Power International Pty Ltd (trading as Delta Electricity) Tomago Aluminium Company Pty Ltd
Did not directly purchase or sell electricity in NSW in 2020 so their individual energy savings target was zero	Active Utilities Retail Pty Ltd AGL ACT Retail Investments Pty Ltd AGL Macquarie Pty Limited Amber Electric Pty Ltd Apex Energy Holdings Pty Ltd Arc Energy Corporation Pty Ltd Aurora Energy Pty Ltd Balance Commodities and Energy Pty Ltd CleanCo Queensland Limited	International Power (Retail) Pty Limited Localvolts Pty Ltd Metered Energy Holdings Pty Ltd Microgrid Power Pty Ltd Neighbourhood Energy Pty Ltd OzGen Retail Pty Ltd Positive Energy TM Pty Ltd PowerHub Pty Ltd Real Utilities Pty Limited

[e] At the time of writing penalty payments from the 2 Scheme Participants that elected to pay penalties were outstanding (section 2.3.1)

Compliance performance	Name of Scheme Participant	
	CleanTech Energy Pty Ltd CS Energy Limited EDL Retail Pty Ltd ElectrAg Pty Ltd Energy On Pty Ltd Evergy Pty Ltd EZI Power Pty Ltd GEE Power & Gas Pty Ltd Icon Retail Investments Limited (trading as ActewAGL Retail)	Savant Energy Power Networks Pty Limited Smart Energy Retail Pty Ltd Social Energy Australia Pty Ltd Starcorp Energy Pty Ltd Sustainable Savings Pty Ltd The Embedded Networks Company Pty Ltd Tilt Renewables Australia Pty Ltd Total Gas & Power Australia Pty Ltd YES Energy (SA) Pty Ltd
Qualified for the Small Retailer Order and had their 2020 individual energy savings target reduced to zero	Altogether Group Pty Ltd[a] Bright Spark Power Pty Ltd Cleanpeak Energy Retail Pty Ltd (formerly ReNu Energy Retail Pty Ltd) Cogent Energy Pty Ltd CPE Mascot Pty Ltd Darlington Point Solar Farm Pty Ltd Diamond Energy Pty Ltd Discover Energy Pty Ltd Electricity in a Box Pty Ltd Elysian Energy Pty Ltd Energy Services Management Pty Ltd Ergon Energy Queensland Pty Ltd GloBird Energy Pty Ltd Hanwha Energy Retail Australia Pty Ltd Infigen Energy Holdings Pty Limited Locality Planning Energy Pty Ltd	Lumo Energy (NSW) Pty Ltd Lumo Energy (QLD) Pty Ltd Lumo Energy (SA) Pty Ltd Lumo Energy Australia Pty Ltd Mojo Power Pty Ltd[a] MTA Energy Pty Limited Online Power and Gas Pty Ltd (trading as Future X Power) OVO Energy Pty Ltd People Energy Pty Ltd[a] Pooled Energy Pty Limited Power Club Limited Radian Holdings Pty Ltd Sanctuary Energy Pty Ltd[a] SmartestEnergy Australia Pty Ltd Tango Energy Pty Ltd WINconnect Pty Ltd Zen Energy Retail Pty Ltd
Surrendered certificates to meet part of 2020 individual energy savings target and chose to carry forward the remaining energy savings shortfall to 2021	AGL Sales (Queensland Electricity) Pty Limited AGL Sales Pty Limited AGL South Australia Pty Ltd Enova Energy Pty Ltd IPower Pty Ltd and IPower 2 Pty Ltd (trading as Simply Energy)	Next Business Energy Pty Ltd OC Energy Pty Ltd Origin Energy Electricity Limited Powerdirect Pty Ltd Red Energy Pty Limited Sun Retail Pty Ltd
Chose to carry forward a shortfall to 2021 and elected to pay an energy savings shortfall penalty against their remaining energy savings shortfall	Blue NRG Pty Ltd[a]	QEnergy Limited[a]

a. Failed to remedy shortfall carried forward from 2019 (section 2.3.2).

Seven Scheme Participants failed to comply with their other obligations under the Act (**Table 2.4**), all due to lodging an Annual Energy Savings Statement (or nil return) after the due date of 30 April 2021. Six of the late lodgements were nil returns and one was an Annual Energy Savings Statement with a small individual energy savings target.

A Scheme Participant that fails to lodge an Annual Energy Savings Statement (or nil return) in accordance with the Act is guilty of an offence and may be liable for a penalty. However, the Scheme Regulator decided not to take compliance action because all 7 Scheme Participants submitted an Annual Energy Savings Statement (or nil return) when prompted, and the impact on compliance with the overall energy savings target was minimal.

Table 2.4 Scheme Participant compliance with other obligations

	2016	2017	2018	2019	2020
Number of Scheme Participants	62	65	74	90	102
Number of Scheme Participants that complied with other obligations	60	60	70	78	95
Number of Scheme Participants that failed to comply with other obligations	2	5	4	7	7

2.2 Certificates surrendered

The energy savings target for 2020 was 4,562,688 certificates. This target was reduced by 0.4%, or 16,179 certificates, due to the Small Retailer Order which reduced the individual energy savings targets of small retailers to zero. This reduction resulted in a lower energy savings target for 2020 of 4,546,509 certificates.

Scheme Participants surrendered 4,293,346 certificates to comply with their individual energy savings targets, meaning 94.4% of the overall energy savings target was met by surrendering certificates. An additional 101,850 certificates were surrendered to remedy energy savings shortfalls carried forward from 2019.

A total of 4,395,196 certificates were surrendered by Scheme Participants in 2020. **Table 2.5** reconciles the certificates surrendered with the 2020 energy savings target.

Table 2.5 Reconciliation of certificates surrendered in 2020

Reconciliation of certificates	
Certificates required to meet 2020 energy savings target	**4,546,509**
Add: Certificates surrendered to meet shortfalls carried forward from 2019[a]	101,850
Less: Shortfall carried forward to 2021[b]	(235,855)
Less: Certificate equivalent value of penalties to be paid[b]	(17,308)
Total certificates surrendered	**4,395,196**

a. Discussed in section 2.3.2
b. Discussed in section 2.3.1

2.3 Energy savings shortfalls

When a Scheme Participant does not surrender sufficient certificates to meet their individual energy savings target, there is an energy savings shortfall. A Scheme Participant may elect to carry forward a shortfall of up to 10% of their target to the following year. Any shortfall carried forward must be met in the following compliance year. Alternatively, the Scheme Participant must pay a shortfall penalty.

2.3.1 Shortfalls for current compliance year

In 2020 13 Scheme Participants had energy savings shortfalls. The total energy savings shortfall was 5.6% of the overall energy savings target, equivalent to 253,163 certificates. Eleven Scheme Participants elected to carry forward an energy savings shortfall to 2021. This represented a total obligation of 235,855 certificates or approximately 5.2% of the overall energy savings target for 2020. This is more than double the 2.3% and 2.2% carried forward in 2019 and 2018 respectively.

Two Scheme Participants elected to pay an energy savings shortfall penalty. The total penalty payments are equivalent to 17,308 certificates, or approximately 0.4% of the overall energy savings target for 2020. One of these Scheme Participants was granted a payment extension to 30 June 2022. At the time of writing we are working with the second Scheme Participant to arrange payment of their outstanding penalty. Compliance by these Scheme Participants with their 2020 obligations will be reported in our 2021 annual report.

2.3.2 Shortfalls from previous compliance years

In 2019 13 Scheme Participants elected to carry forward an energy savings shortfall to the 2020 compliance year. Of these:

- 7 Scheme Participants surrendered a total of 101,850 certificates to remedy their 2019 shortfall
- 6 Scheme Participants did not surrender certificates to remedy their 2019 shortfalls totalling 2,638 certificates.

The six Scheme Participants with energy savings shortfalls from 2019 that were not remedied were issued penalty invoices for the outstanding shortfalls. Five Scheme Participants paid their penalties by the due date.

As part of the COVID-19 concessions offered to Scheme Participants in 2019, 5 Scheme Participants were granted an extension to 30 June 2021 to pay their 2019 energy savings shortfall penalty. Four Scheme Participants paid their penalties by the due date.

One Scheme Participant elected to carry forward an energy savings shortfall from 2019 and was also granted a payment extension for their 2019 energy savings shortfall. At the time of writing we are working with this Scheme Participant to arrange payment of the outstanding penalty. Compliance by this Scheme Participant with their 2019 obligations will be reported in our 2021 annual report.

At the start of 2020 4 Scheme Participants had outstanding shortfall penalties from previous compliance years totalling $330,844. One Scheme Participant has since repaid their outstanding debt of $37,263. Debts from the remaining 3 Scheme Participants totalling $293,581 were written off.[f, g]

[f] Outstanding debts were written off based on information provided to creditors under the Deeds of Company Administration that no funds remain to pay out creditors.

[g] All 3 Scheme Participants had their electricity retailer authorisations revoked by the Australian Energy Regulator and no longer participate in the ESS.

2.4 Deductions for exempt loads

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.[h] Exempt activities and locations are listed in a Ministerial Order published each year in the Government Gazette.[i] Scheme Participants that supply electricity to entities for exempt activities at these locations can deduct the exempt portion of their sales when calculating their annual liable acquisitions, which reduces their individual energy savings target.

During 2020 26 entities claimed exemptions for 33 locations (all with 90% exemptions of the load). Various manufacturing activities are undertaken at these locations, including aluminium smelting; integrated iron and steel manufacturing; and the production of various chemicals, and glass and paper products.

Thirteen Scheme Participants supplied electricity to these entities at these locations. In total, Scheme Participants claimed deductions for exempt loads of 10,742,254 MWh, equivalent to 16.7% of the total electricity supplied in NSW in 2020. This figure is the same as deductions claimed in 2019, which also represented 16.7% of the total load.

2.5 Audits of Annual Energy Savings Statements

Scheme Participants are required to have their Annual Energy Savings Statement audited when the statement includes an exempt electricity load claim or non-market acquisitions. Members of the ESS Audit Services Panel conduct these audits to confirm market liable acquisitions, non-market liable acquisitions and exemption claims, as well as general inputs and calculations. Audit reports must be submitted with the Scheme Participant's Annual Energy Savings Statement by 30 April each year.

In 2020 the Annual Energy Savings Statements of 31 Scheme Participants were audited. These audits covered 99% of the total liable acquisitions for the compliance year. Audit reports were all provided by the due date and were generally of a good standard. Auditors found some input errors, which were mostly corrected before Annual Energy Savings Statements were submitted. The errors primarily related to incorrectly applying transmission and distribution losses to exempt loads.

Scheme Participants that qualified for the Small Retailer Order were not required to have their Annual Energy Savings Statements audited. In lieu of an audit we assessed the Annual Energy Savings Statement of all Scheme Participants eligible for the Small Retailer Order.

[h] Clause 22 of Schedule 4A to the Act.

[i] 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 (90% for all loads in 2020). The Ministerial Order for 2020 was published on 13 December 2019 (NSW Government Gazette no. 173 of 2019).

2.6 Amended assessments from previous compliance years

In late 2020 AGL Sales Pty Ltd and AGL South Australia Pty Ltd (AGL) applied for an amendment to the assessment of its combined 2019 Annual Energy Savings Statement.[j] AGL failed to claim all exempt electricity loads that it was entitled to claim in its 2019 Annual Energy Savings Statement. As a result, it surrendered 34,816 certificates more than needed to meet its amended 2019 individual energy savings target.

The Scheme Regulator amended the assessment of AGL 2019 Annual Energy Savings Statement and revoked the cancellation of the 34,816 certificates. These certificates appear in the ESS Registry as certificates revived in the 2020 compliance year (**Table 4.3**).

[j] Amendment to an Annual Energy Savings Statement is allowed under clause 35(1) of the Regulation

Chapter 3

Compliance by Accredited Certificate Providers

A report on the extent to which Accredited Certificate Providers complied with the Act, the Regulation and the ESS Rule.

03

Accredited Certificate Providers include all organisations accredited to create certificates from recognised energy saving activities in NSW. Accredited Certificate Providers have a range of legal obligations under the Act, Regulation and ESS Rule (**Box 3.1**). We actively monitor Accredited Certificate Provider's compliance with these obligations. A major focus of our compliance activity is the use of audits to provide assurance over certificates created for energy savings. We also receive and act on information from other sources, including customers. Where we detect non-compliance, we act to protect the integrity of the ESS.

In 2020 the level of compliance by most Accredited Certificate Providers was high. As in previous years, most identified non-compliances related to improper creation of certificates. Typical reasons for improper creation in 2020 are discussed further in section 3.2.1. **Table 3.1** summarises the numbers of Accredited Certificate Providers and accreditations for the period 2016 to 2020.

Table 3.1 Accredited Certificate Providers and accreditations

	2016	2017	2018	2019	2020
Accredited Certificate Providers[a]	90	91	93	91	**88**
Active Accredited Certificate Providers[b]	50	56	63	56	**50**
Accreditations[a]	171	175	172	177	**177**
Active accreditations[c]	70	77	93	82	**81**
New accreditations	22	26	15	13	**8**
Cancelled accreditations	51	22	18	8	**8**

a. At 31 December of the calendar year.
b. Active Accredited Certificate Providers are those that registered certificates in 2020.
c. Active accreditations are those for which the Accredited Certificate Provider registered certificates for implementations conducted in 2020.

Box 3.1 Accredited Certificate Provider obligations

An Accredited Certificate Provider's key obligations include complying with:

- The requirements of the Act, Regulation and ESS Rule
- The conditions of accreditation set out in its Accreditation Notice, such as engaging an auditor to undertake the audit of its certificate creation and record keeping.

The Act sets out offences relating to non-compliance with these obligations, including:

- improperly creating certificates (clause 36 of Schedule 4A)
- contravening the conditions of accreditation (clause 41 of Schedule 4A)
- obstructing the Scheme Administrator (clause 60 of Schedule 4A)
- supplying false or misleading information (clause 61 of Schedule 4A).

3.1 Audits of Accredited Certificate Providers

Audits of Accredited Certificate Providers help us regulate compliance (**Box 3.2**). We use pre-registration and post-registration audits to provide assurance that certificates will be or have been created in accordance with the legislation.

In 2020 the Audit Services Panel conducted 135 audits of Accredited Certificate Providers, covering 77 accreditations.

Table 3.2 Audits of Accredited Certificate Providers

	2016	2017	2018	2019	2020
Post-registration – volumetric	43	47	60	75	**74**
Post-registration – periodic	20	20	15	12	**11**
Post-registration – spot	3	0	0	2	**0**
Pre-registration	23	40	55	54	**49**
Record keeping	3	2	1	2	**1**
Total number of audits	**92**	**109**	**131**	**145**	**135**

In 2020 the number of audits decreased, after steady increases in previous years. Our assessment is that this is due to the stabilisation and maturation of Accredited Certificate Providers operating under the scheme which has resulted in:

- an increase in certificate creation limits of Accredited Certificate Providers on volumetric audit regimes[k]
- a reduction in the number of pre-registration audits as Accredited Certificate Providers move across to post-registration audit regimes.

Both outcomes generally result in audits being conducted less frequently.

[k] Most Accredited Certificate Providers are on volumetric audit regimes that limit the number of certificates they can create between audits.

Box 3.2 How we regulate Accredited Certificate Providers' compliance

All Accredited Certificate Providers are subject to auditing and reporting requirements as conditions of accreditation. We determine these requirements using a risk-based approach which includes the assessing the compliance performance of the Accredited Certificate Provider and referring to our *Accredited Certificate Provider Compliance Guide.*[a]

We have four types of audit regimes but typically impose a pre-registration or volumetric audit regime. Pre-registration audits are conducted before certificates can be registered. Volumetric audits are conducted after certificates have been registered but there is a limit to the number of unaudited certificates that can be registered, and audits must be conducted at least once every 12 months. All audits are conducted by members of the Audit Services Panel.

We require applicants for accreditation to give an undertaking[b] to withhold from transfer a portion of unaudited certificates pending the result of an audit. Withheld certificates must be forfeited to address improper certificate creation identified in an audit. Undertakings mitigate the risk of improperly created certificates entering the market.

We may also:

- order an Accredited Certificate Provider to forfeit certificates for non-compliance
- amend conditions of accreditation
- suspend or cancel accreditations, and
- issue penalty notices in certain circumstances.

a. Prior to the introduction of mandatory set-aside undertakings under clause 40 of the Regulation in 2016, we requested Accredited Certificate Providers to enter into a voluntary deed, which has the same requirements.
b. The portion to be set aside starts at 10% and is adjusted in response to audit outcomes.

3.2 Accredited Certificate Providers' performance

In 2020 we identified 61 instances of non-compliance by Accredited Certificate Providers. **Table 3.3** provides a breakdown of the types of non-compliance detected.

Table 3.3 Non-compliance by Accredited Certificate Providers

Type of non-compliance[a]	2016	2017	2018	2019	2020
Improper creation of certificates (clause 36 of Schedule 4A to the Act)	36	49	51	63	**56**
Failure to meet record keeping requirements (clause 46 of the Regulation)	5	4	2	2	**2**
Failure to engage an auditor by the required deadline (clause 41 of Schedule 4A to the Act)	6	4	0	2	**3**
Failure to meet other Accreditation Notice conditions (clause 41 of Schedule 4A to the Act)	0	2	0	0	**0**
Total	**47**	**59**	**53**	**67**	**61**

a. The statistics provided in this table reflect decisions made by the Scheme Administrator.

We address instances of non-compliance through various actions. In some instances, we impose accreditation conditions, such as requiring pre-registration audits of proposed certificate creation, or reducing the number of certificates that can be registered before an audit is required. In more serious cases of non-compliance, we may refer the matter to an enforcement officer to consider whether enforcement action is required.

We identified 56 instances of improper creation of certificates in 2020, involving 34,493 certificates of various vintages. These improperly created certificates are equivalent to 0.7% of all certificates created from 2020 activities. Nine of these instances were material,[l] accounting for 58% of the total number of improperly created certificates.

Table 3.4 Improper creation of certificates identified in 2020[a]

Type of error and means of identification	Number of instances[b]	Certificates improperly created
Material improper creation identified by audit	9	20,025
Non-material improper creation identified by audit	46	12,192
Improper creation identified by other means	1	2,276
Total	**56**	**34,493**

a. Improper creation of certificates identified in 2020 involved certificates of various vintages.
b. An audit or review that identifies improper creation is reported as a single instance. An instance may include multiple cases of improper creation (e.g. an audit might identify multiple projects with instances of improper creation however it is reported as only one instance).

Fewer instances of non-compliance were identified in 2020 than in 2019, with 50% fewer certificates improperly created compared to the 69,454 improperly created certificates identified in 2019.

[l] Improper creation is considered material if the number of improperly created certificates exceeds 5% of the certificates audited.

In 2020 we resolved several material instances of non-compliance and took a range of actions to recover improperly created certificates (discussed further in section 3.2.2).

3.2.1 Reasons for improper creation

Typical reasons for non-compliance included Accredited Certificate Providers:

- not meeting the requirements of the method used to calculate the energy savings, which most commonly involved:
  - incorrect classification of space types under the Commercial Lighting Energy Savings Formula method
  - incorrect classification of small business sites under the Home Energy Efficiency Retrofits method
  - failing to meet the co-payment requirement under either the Commercial Lighting Energy Savings Formula method or the Home Energy Efficiency Retrofits method
  - creating additional certificates under the Project Impact Assessment Method from projects for which the Accredited Certificate Provider was not eligible to create additional certificates
- not providing sufficient or consistent evidence to support claims for certificate creation (including modifying evidence)
- creating certificates before the project's implementation date or before accreditation
- not being nominated as the energy saver on the implementation date.

3.2.2 Material instances of improper creation identified by audit

Through post-registration audits, we identified 9 material instances of improper creation involving 7 Accredited Certificate Providers (**Table 3.5**). These instances resulted in the improper creation of 20,025 certificates, or 0.4% of all certificates created in 2020.

Table 3.5 Material instances of improper creation identified by audit in 2020

Accredited Certificate Provider	Accreditation method	Improperly created certificates	Error rate (%)	Certificate forfeiture
Accredited Power Saver Co Pty Ltd	Home Energy Efficiency Retrofits	2,105	6.0	2,265
GPRD Global Pty Ltd	Project Impact Assessment with Measurement and Verification	2,734	15.0	2,734
Save Wise Pty Ltd	Commercial Lighting Energy Savings Formula	3,170	36.6	0[a]
Shell Energy Engineering Pty Ltd	Project Impact Assessment Method	2,658	12.2	2,658

Accredited Certificate Provider	Accreditation method	Improperly created certificates	Error rate (%)	Certificate forfeiture
Shell Energy Engineering Pty Ltd	Project Impact Assessment Method	1,433	42.5	1,433
Shell Energy Engineering Pty Ltd	Project Impact Assessment Method	1,951	21.7	1,951
The University of New South Wales	Project Impact Assessment with Measurement and Verification	87	100.0	0[b]
University of Technology Sydney	Metered Baseline Method	1,043	6.0	1,043
Versace LED Low Energy Pty Ltd	Commercial Lighting Energy Savings Formula	4,844	19.5	0[c]

a. Save Wise Pty Ltd agreed to forfeit the 3,170 improperly created certificate by 31 August 2021.
b. The Scheme Administrator did not require certificates to be forfeited as the auditor found that these certificates represented genuine energy savings.
c. At the time of writing forfeiture of these certificates is the subject of a NSW Civil and Administrative Tribunal review.

In some cases, the number of certificates forfeited is less than the number of certificates improperly created. In these instances, the certificates are yet to be forfeited, are under review or we did not require the certificates to be forfeited.[m]

Accredited Power Saver Co Pty Ltd

Accredited Power Saver Co Pty Ltd (APS) was found to have improperly created 2,105 certificates from 132 lighting upgrades that had not been supervised by a licensed electrician. The audit identified that the licence of the contractor completing the works had expired before the upgrades were carried out. A review of previous audits also identified a further 160 certificates that had been created from upgrades conducted by the same unlicensed contractor. APS forfeited a total of 2,265 certificates improperly created from these implementations.

GPRD Global Pty Ltd

GPRD Global Pty Ltd (GPRD) created 2,734 certificates from one project in the incorrect vintage. These certificates were therefore improperly created. GPRD forfeited the 2,734 certificates and recreated them in the correct vintage.

Save Wise Pty Ltd

Save Wise Pty Ltd (Save Wise) applied an incorrect version of the ESS Rule, resulting in non-compliance with the co-payment requirements and the improper creation of 3,170 certificates. We agreed to Save Wise's request to forfeit the certificates over a period of 6 months and issued an order for the certificates to be surrendered by 31 August 2021.[n]

[m] We account for mitigating factors when considering whether forfeiture of certificates is required.
[n] Clause 45 of Schedule 4A to the Act allows the Scheme Administrator to order an Accredited Certificate Provider to surrender certificates where the Scheme Administrator is satisfied that the certificates have been improperly created.

Shell Energy Engineering Pty Ltd

Shell Energy Engineering Pty Ltd (Shell)° were found to have improperly created a total of 6,042 certificates across 3 Project Impact Assessment Method audits. The reasons for improper creation were similar across the 3 audits, with certificates created from implementations the auditor found were ineligible to create additional energy savings. The auditor also identified 256 certificates where Shell incorrectly calculated and created additional energy savings certificates. Shell did not agree to forfeit these 256 certificates but forfeited the other 5,786 improperly created certificates. We issued an order for surrender of the remaining 256 certificates which Shell complied with.

The University of New South Wales

The University of New South Wales (UNSW) improperly created 87 certificates because it did not engage a Measurement and Verification Professional to review the implementation, as required by the ESS Rule. The audit found, other than failing to meet the Measurement and Verification Professional requirement, the 87 certificates were correctly calculated based on energy savings that had occurred. Based on this finding, and because UNSW did not appear to have deliberately breached the ESS Rule, we decided not to request forfeit of the improperly created certificates.

The University of Technology Sydney

The University of Technology Sydney (UTS) was found to have improperly created 1,043 certificates across 6 sites under its Metered Baseline Method accreditation. The reasons for improper creation included calculation errors, data discrepancies and incorrect consideration of measurement periods. UTS agreed to forfeit the 1,043 certificates. We amended the conditions of UTS's accreditation to require pre-registration audits, because we identified a high risk of future improper creation based on UTS's inconsistent compliance history.

Versace LED Low Energy Pty Ltd

Versace LED Low Energy Pty Ltd (Versace) was found to have improperly created a substantial number of certificates. The auditor attributed the majority of the improper creation to Versace's failure to comply with the co-payment requirement which stemmed from Versace:

- modifying the inputs to energy savings calculations to reduce the energy savings claimed from an implementation
- incorrectly determining the 'control gear' for the lighting system replaced
- incorrectly determining the 'space type' where the implementation took place
- incorrectly determining the lamp type used in the lighting system replaced.

The surrender of certificates is equivalent to a forfeit and differs to surrender of certificates by Scheme Participants to meet their individual energy savings targets.

° Formerly ERM Power Engineering Pty Ltd

We issued 2 penalty notices to Versace – a $20,000 penalty notice for the improper creation of certificates and a $2,500 penalty notice for contravention of the ESS Rule. Versace paid the $22,500 in fines.

The first penalty notice related to incorrectly classifying the building space type for a lighting upgrade. Versace conducted a lighting upgrade in an office space but claimed certificates for a manufacturing space. By modifying the space type input, Versace was able to create a greater number of certificates than they were entitled to create for the project.

The second penalty notice related to modifying the Lamp Circuit Power (**LCP**) variable when calculating baseline consumption for a lighting upgrade. Versace improperly adjusted the LCP inputs to meet the co-payment requirements. Accredited Certificate Providers are required to enter accurate information into calculations and are not permitted to alter calculation inputs.

We also issued an order to surrender about half of the certificates identified by the auditor as improperly created. For implementations where genuine energy savings could be demonstrated, we exercised discretion and did not order surrender of the improperly created certificates. At the time of writing, the order to surrender is the subject of a NSW Civil and Administrative Tribunal review in accordance with Clause 73(4) of Schedule 4A to the Act.

3.2.3 Instances of improper creation identified by other means

One instance of improper creation was identified by the Accredited Certificate Provider through its own internal review process. Through site audits and discussions with the installer, the Accredited Certificate Provider identified one of its installers had been significantly over-claiming the energy savings from implementations. The Accredited Certificate Provider revised the certificate claim and voluntarily forfeited the 2,276 certificates identified as being over-claimed from 16 projects undertaken by the installer. Subsequent audit of these projects provided assurance over the revised claim.

3.2.4 Other non-compliance due to failure to meet other obligations

We identified 2 material instances where Accredited Certificate Providers failed to keep records required under the Act, Regulation and their conditions of accreditation. In each instance, we required the Accredited Certificate Provider to detail the steps it would undertake to rectify the issue, and that its next audit examine whether it had implemented these actions.

We also identified 3 material instances where Accredited Certificate Providers failed to engage an auditor by the required deadline. We cancelled the Accredited Certificate Providers' accreditations on the grounds the Accredited Certificate Providers had contravened the Regulation and their conditions of accreditation by failing to conduct an audit as required. We considered the recurring and ongoing failure to conduct an audit presented an unacceptable risk of improper certificate creation and cancellation of the accreditation was the appropriate regulatory response.

3.2.5 Material errors identified by pre-registration audit

Seven pre-registration audits (**Box 3.2**) identified material errors in the number of certificates Accredited Certificate Providers proposed to create. This was equivalent to 29,693 certificates. As a result of pre-registration audits, we avoided the improper creation of 33,889 certificates, demonstrating the effectiveness of pre-registration audits as a tool for mitigating improper creation.

3.3 Emerging compliance issues

In 2018 and 2019 we identified a range of non-compliance issues involving the Project Impact Assessment with Measurement and Verification Method. This typically involved Accredited Certificate Providers selecting inappropriate measurement periods, site boundaries and independent variables, or including ineligible activities within the measurement boundary. We published new *Project Impact Assessment Measurement and Verification Method Requirements* on 21 February 2020 which came into effect when the new ESS Rule commenced on 30 March 2020. These requirements aim to increase clarity and certainty for stakeholders using this complex method.

In 2020 we observed an 86% reduction in the number of certificates improperly created under the Project Impact Assessment with Measurement and Verification Method. This reduction indicates the new method requirements have been effective in assisting Accredited Certificate Providers to understand and meet their compliance obligations.

In 2019 we identified emerging non-compliance issues related to the increasing uptake of the Home Energy Efficiency Retrofits method. We saw a similar level of non-compliance related to this method in 2020, as well as recurring issues of non-compliance related to the Commercial Energy Savings Formula method. For both methods, the issues were typically associated with a failure to comply with the co-payment or nomination requirements, a lack of evidence to support the energy savings being claimed, or general calculation errors.

We also observed an increase in non-compliance resulting from the improper creation of additional certificates from ineligible projects under the Project Impact Assessment Method.

While in most cases the instances of improper creation were not material and overall the extent of non-compliance was low, we observed the following trends:

- Careless or opportunistic modification of records, such as nomination forms, is an ongoing issue that seems to be occurring as a result of increased digitisation of records.
- Accredited Certificate Providers having insufficient oversight of their contractors, despite being responsible for their conduct and compliance with ESS requirements, remains a concern.
- Increased reliance on software packages to track certificate creation evidence and data, together with a lack of understanding of how the software works, is resulting in errors and leading to improper certificate creation.

- 60% of post-registration audits of Commercial Lighting Energy Savings Formula accreditations returned findings of improper certificate creation. The 15,084 improperly created certificates from these accreditations represents 44% of the total number of improperly created certificates.
- The number of improperly created certificates related to Project Impact Assessment Method accreditations (6,042 certificates) was 66% lower than last year (17,518 certificates).
- Improper certificate creation relating to the Home Energy Efficiency Retrofits method remains an issue, with 43% of post-registration audits of these accreditations including findings of improper certificate creation. The total number of improperly created certificates from these accreditations (5,581 certificates) increased by 14% compared with last year (4,904 certificates).

In response to these emerging compliance issues we:

- increased direct engagement with stakeholders through targeted workshops and consultation with industry peak body, the Energy Savings Industry Association
- released clarifications and guidance on key eligibility requirements (e.g. small business site definition)
- continued to focus on identifying careless or opportunistic modification of records and investigated instances of record modification
- continued to focus on compliance activity relating to Accredited Certificate Providers attempting to devolve accountability to third parties.

Our focus on these issues is continuing in 2021.

Chapter 4

Scheme performance

A report on the number of certificates created and surrendered, the certificate surplus and the estimated energy savings delivered by the scheme.

04

Each year we analyse the supply and demand of certificates and estimate the energy savings achieved from certificate creation according to our statutory reporting requirements. This information also allows us to assess the scheme's performance against the scheme objectives. In 2020 the ESS continued to achieve the objectives set out in the Act[p] by:

- **Creating financial incentives to reduce energy consumption:** The energy savings target was 8.5% of all electricity purchased for supply to end use customers in NSW in 2020, equivalent to 4,546,509 notional megawatt hours (MWh) or 4,546,509 certificates.[q] This demand for certificates provided a financial incentive for Accredited Certificate Providers to create 4,967,296 certificates by implementing energy savings activities. These 2020 vintage certificates represented 4,572,125 MWh of electricity savings and 309,855 MWh of gas savings.[r]
- **Helping households and businesses reduce energy consumption and costs:** Households and businesses reduced electricity consumption by 3,107,554 MWh and gas consumption by 180,783 MWh in 2020 through energy savings activities implemented under the scheme. The estimated cost savings for NSW consumers was $264 million.[s]
- **Reducing greenhouse gas emissions:** 2,807,785 tonnes[t] of greenhouse gas emissions were avoided as a direct result of the energy savings realised through the ESS in 2020. This result complements carbon reduction schemes by making targeted greenhouse gas reductions achievable at lower cost.
- **Reducing demand:** Energy savings activities implemented under the scheme in 2020 reduced electricity demand which contributed to reducing the cost of and need for additional energy generation, transmission and distribution infrastructure.

4.1 Certificate supply and demand

In 2020 4,967,296 certificates were created by Accredited Certificate Providers, 2% more than in 2019. The number of certificates created was 11% more than the number of certificates surrendered in 2020 (4,458,119 certificates), resulting in an 11% increase in the certificate surplus.

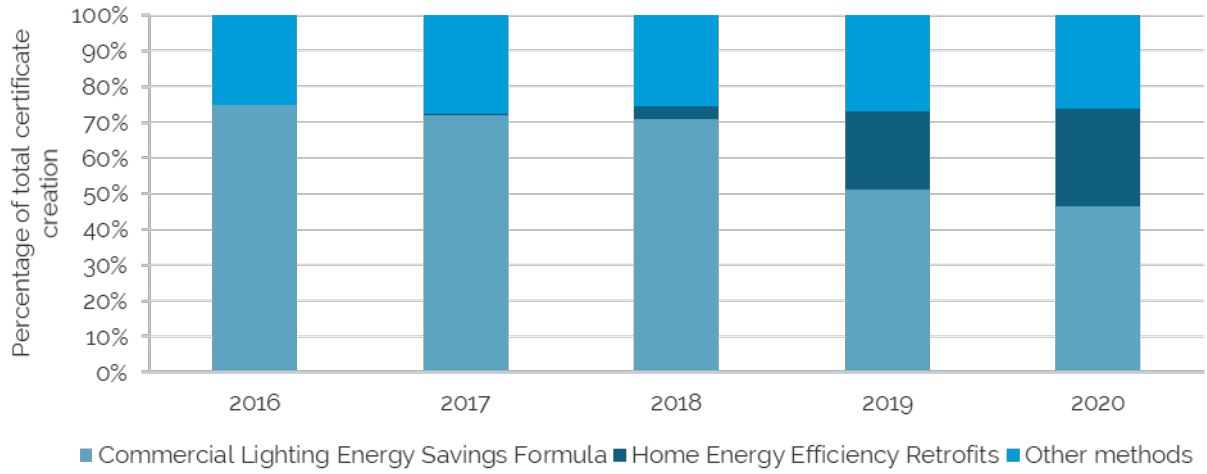
p The objectives of the ESS are specified in clause 1 of Schedule 4A to the Act.
q Number of certificates required to meet the ESS target after deducting allowed exemptions.
r To calculate certificates, the electricity and gas savings achieved (in MWh) are multiplied by the relevant certificate conversion factor (1.06 for electricity and 0.39 for gas) as per clause 33 of Schedule 4A to the Act.
s Net savings based on estimated bill savings from reduced energy consumption less charges passed through by electricity retailers ($113–131 million).
t Based on full fuel cycle factors in Department of the Environment and Energy, *National Greenhouse Accounts Factors, October 2020*, September 2020.

4.1.1 Certificate creation by calculation method

As in previous years, the majority of certificates created in 2020 were due to energy savings from lighting activities in the commercial, small business and residential sectors (**Table 4.1**). Before 2019 most of this creation came from commercial lighting activities under the Commercial Lighting Energy Savings Formula method[u] (**Table 4.2**). However, over the past 2 years, lighting activity in the commercial sector has declined, with a clear shift toward residential and small business lighting activities under the Home Energy Efficiency Retrofits method.

In 2020 the number of certificates created using the Commercial Lighting Energy Savings Formula method decreased by 10% compared with 2019. Commercial lighting activities represented 45% of the total certificates created. The number of certificates created from lighting activities under the Home Energy Efficiency Retrofits method increased by 19% compared with 2019, representing 25% of the total certificates created. **Figure 4.1** illustrates the increasing proportion of activity under the Home Energy Efficiency Retrofits method over the past 3 years.

Figure 4.1 Percentage of certificate creation from lighting activities



Certificate creation activity across other methods and project types remained relatively consistent with previous years.

[u] ESS calculation methods are described in **Box 4.2**.

Table 4.1 Number of certificates created by project type

Project type	2009–2017[b]	2018	2019	2020	Total
Lighting	17,000,057	3,808,228	3,136,538	**3,159,499**	27,104,322
Multiple activities[a]	1,555,283	610,655	666,392	**734,117**	3,566,447
Process change/control systems	1,799,992	98,728	117,257	**141,788**	2,157,765
New appliances	1,042,041	290,714	380,251	**449,374**	2,162,380
Heating, ventilation and air-conditioning	500,101	118,979	194,317	**88,373**	901,770
Showerheads	728,025	0	0	**0**	728,025
Building upgrade	0	5,139	265,271	**277,745**	548,155
Refrigeration	328,257	67,247	38,655	**21,607**	455,766
Home retrofit	226,296	50,676	27,941	**48,235**	353,148
Compressed air	191,463	33,317	1,734	**8,530**	235,044
Fans/pumps	173,556	22,896	4,906	**23,901**	225,259
Refrigerator and freezer removal	143,796	0	0	**0**	143,796
Air handling, fans, ventilation	25,702	20,187	23,515	**14,127**	83,531
Power systems	29,650	17,367	5,795	**0**	52,812
Industrial refrigeration and freezing	7,376	6,737	0	**0**	14,113
High efficiency motors	5,539	0	0	**0**	5,539
Power factor correction	228	0	0	**0**	228
Total	**23,757,362**	**5,150,870**	**4,862,572**	**4,967,296**	**38,738,100**

a. Multiple activities may also include lighting activities completed under the Home Energy Efficiency Retrofits method

b. Previous ESS Annual Reports provide a breakdown of the number of certificates created during these years.

Note. Figures are rounded to nearest integer (this rounding may result in 'zero' certificates for some years with small certificate creation). Totals may not add exactly due to rounding. Small differences in data compared with previous annual reports reflect certificates that have been forfeited after the report was released.

Table 4.2 Number of certificates created by energy savings calculation sub-method[a]

Calculation method	2009–2017[b]	2018	2019	2020	Total
Deemed Energy Savings Method					
Commercial Lighting Energy Savings Formula	16,715,232	3,649,380	2,493,486	**2,241,031**	25,099,129
Home Energy Efficiency Retrofits	11,843	188,422	1,055,282	**1,251,356**	2,506,903
Sale of New Appliances	1,041,082	280,908	350,169	**385,766**	2,057,925
Default Savings Factors	732,854	0	0	**0**	732,854
Public Lighting Energy Savings Formula	40,048	64,907	113,326	**266,992**	485,273
Removal of Old Appliances	18,992	25,655	55,710	**108,439**	208,796
Installation of High Efficiency Appliances for Businesses	143,796	0	0	**0**	143,796
High Efficiency Motor Energy Savings Formula	1,569	0	0	**0**	1,569
Power Factor Correction Energy Savings Formula	228	0	0	**0**	228
1-for-1 Residential Downlight Replacement	0	0	0	**0**	0
Metered Baseline Method					
Baseline per unit of output	2,075,950	186,721	159,229	**156,211**	2,578,111
Normalised baseline	754,317	166,722	150,468	**23,527**	1,095,034
NABERS baseline	327,282	20,330	14,518	**13,200**	375,330
Baseline unaffected by output	134,702	9,380	8,137	**1,212**	153,431
Aggregated Metered Baseline	0	0	0	**0**	0
Project Impact Assessment Method	1,434,209	163,898	50,585	**48,940**	1,697,632
Project Impact Assessment with Measurement and Verification Method	325,258	394,547	411,662	**470,622**	1,602,089
Total	**23,757,362**	**5,150,870**	**4,862,572**	**4,967,296**	**38,738,100**

a. **Box 4.2** explains the calculation methods. Methods for which certificates are yet to be created are not included in this table.

b. Previous ESS Annual Reports provide a breakdown of the number of certificates created during these years.

Note. Figures are rounded to nearest integer (this rounding may result in 'zero' certificates for some years with small certificate creation). Totals may not add exactly due to rounding. Small differences in data compared with previous annual reports reflect certificates that have been forfeited after the report was released.

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4.1.2 Certificate surrender

In 2020 4,395,196 certificates were surrendered by Scheme Participants to meet their regulatory obligations. Of these, 4,293,346 were surrendered by Scheme Participants to meet their individual energy savings targets for 2020 and 101,850 were surrendered to remedy shortfalls carried forward from 2019 (section 2.2).

A further 62,923 certificates were voluntarily surrendered by the Department of Planning, Industry and Environment as part of its Small Business Upgrade Program – taking the total number of certificates surrendered in 2020 to 4,458,119.

4.1.3 Cumulative certificate surplus

At 30 June 2021 the certificate surplus was 5,664,835 certificates of 2020 vintage or older.[v] These certificates are available for surrender in future compliance years (**Table 4.3**). Typically, the surplus rises throughout the year as Accredited Certificate Providers register certificates and falls sharply in March/April of the following year when Scheme Participants surrender certificates to meet their compliance obligations (**Figure 4.2**).

Table 4.3 Supply and surplus of certificates

Year	Net certificates created[a]	Certificates surrendered	Revived certificates	Surplus for the compliance year	Cumulative surplus
2009	276,942	148,928	0	128,014	128,014
2010	764,385	651,655	0	112,730	240,744
2011	1,079,407	1,063,564	0	15,843	256,587
2012	2,553,627	1,885,240	0	668,387	924,974
2013	4,121,802	2,491,055	0	1,630,747	2,555,721
2014	3,023,249	2,700,190	26,603[b]	349,662	2,905,383
2015	2,971,703	2,706,669	0	265,034	3,170,417
2016	4,280,155	3,766,762	0	513,393	3,683,810
2017	4,686,092	4,063,989	0	622,103	4,305,913
2018	5,150,870	4,331,734	0	819,136	5,125,049
2019	4,862,572	4,866,779	0	-4,207	5,120,842
2020	4,967,296	4,458,119	34,816[c]	543,993	5,664,835

a. Small differences in data compared with previous annual reports reflect certificates forfeited after the reports were released. In 2020 36,718 certificates were voluntarily forfeited by Accredited Certificate Providers.
b. The certificates revived in 2014 increased the cumulative surplus at the end of 2014 (sections 2.2.6 and 3.3 of the *2014 ESS Annual Report* provide further details).
c. The certificates revived in 2020 increased the cumulative surplus at the end of 2020 (Section 2.6).

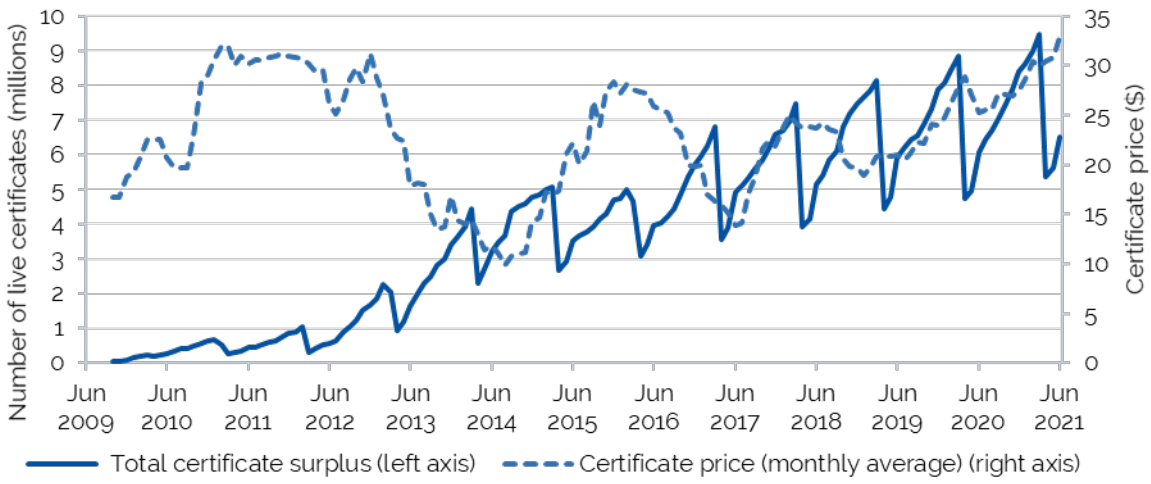
[v] At 30 June 2021 the total cumulative surplus, including certificates of 2021 vintage, was 6,496,069 certificates.

Prior to 2019 the cumulative surplus increased steadily each year as annual certificate creation exceeded the number of certificates surrendered. In 2019 the cumulative surplus remained steady as the number of certificates created was almost equal to the number of certificates surrendered. In 2020 we again observed an increase in the cumulative surplus as the number of certificates created exceeded the number of certificates surrendered by 11%. It is likely the current surplus will exceed the number of certificates required to be surrendered for the 2021 compliance year.

4.1.4 Certificate price

The indicative certificate price[w] varied in 2020, from a low of $25 in early 2020 to a high of $29 in April 2020 (**Figure 4.2**). These prices are notably higher than indicative prices observed in 2019 which ranged from $19 to $24.

Figure 4.2 Total certificate surplus and indicative certificate price[a]



a. Based on data provided by the financial brokers, Nextgen and TFS Green Australia, for all certificates traded through brokers in both the spot market and the forward market.

In the first half of 2021 we have observed further increases in the certificate price with prices higher than those seen in the past 10 years. This increase is despite a significant certificate surplus. At the end of June 2021 the certificate price reached $34. As the certificate price approaches the effective penalty rate,[x] Scheme Participants may choose not to comply with their individual energy savings targets, instead electing to pay the shortfall penalty. This poses a risk that the scheme will not meet the target set out in the Act.[y]

Further analysis is needed to understand the reasons for increasing certificate prices.

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[w] The price data is provided by third parties. Because 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.

[x] As civil penalties are not tax deductible, the effective penalty rate paid is typically higher than the legislated rate.

[y] Schedule 5 of the Act sets out the energy savings targets for each year to 2050.

4.2 Estimated actual energy savings

We use certificate creation data to estimate the actual energy savings achieved by the scheme. For some energy savings activities, certificates may be created in advance of the savings occurring (**Box 4.1**). The projections for energy savings in future years are based on the number of certificates that Accredited Certificate Providers have 'forward created'. To estimate these future savings, we pro-rate the certificates created in each year across the forward creation or deeming period of the relevant energy saving activity. This approach allows us to report against the statutory reporting requirements by providing an estimate of the actual energy savings realised in 2020. It also provides an estimate of the savings that will be realised in the next 10 years from certificates that have already been created.

Box 4.1 Forward creation of certificates

For some recognised energy saving activities, certificates may be created in advance of the actual energy savings occurring, where those savings will continue for up to 15 years 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 certificates (at the start of the energy savings period) for up to 5 years and 10 years respectively, based on estimated energy savings. The certificates are discounted by an approved percentage to account for some uncertainty and may later be 'topped up' if additional savings can be verified.

Under the Deemed Energy Savings Method – which includes the Commercial Lighting Energy Savings Formula and Home Energy Efficiency Retrofits method – the lifetime or deemed energy savings are estimated up front. The certificates are forward created from the time the activity is implemented. The deeming period depends on the type of activity and is typically 7 to 15 years.

Table 4.4 summarises the actual electricity and gas savings we estimate will be realised as a result of certificates created between 2009 and 2020.

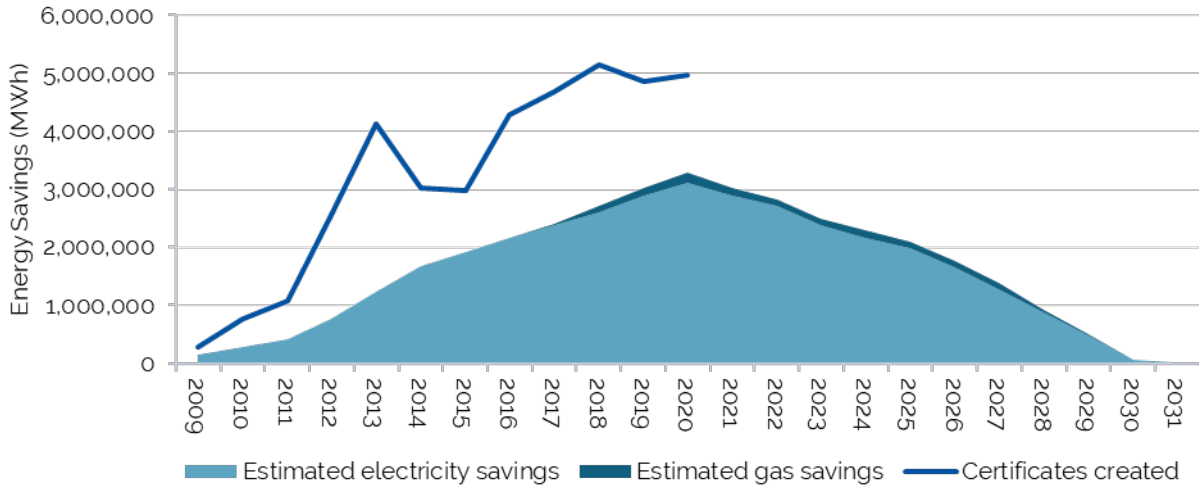
Table 4.4 Estimated actual energy savings (MWh)

	2009-2019	2020	2021-2030	Total
Electricity	16,456,326	**3,107,554**	16,473,699	36,037,580
Gas	286,282	**180,783**	856,053	1,323,119

The estimated actual energy savings for the year increased by 9% for electricity and 25% for gas compared with 2019. This is due to the increase in certificate creation as well as the deemed energy savings from activities implemented in previous years continuing to be realised in 2020.

Figure 4.3 illustrates the actual electricity and gas savings the ESS has achieved, or will achieve, based on the number of certificates created between 2009 and 2020.

Figure 4.3 Certificates created and estimated actual energy savings



The ESS allows energy savings to be calculated using a number of calculation methods designed for particular sectors and activities. **Table 4.5** and **Table 4.6** detail the actual electricity and gas savings that have occurred or are estimated to be realised over the next 10 years, by calculation method.

Box 4.2 How the calculation methods relate to energy saving activities

The **Deemed Energy Savings Method** provides for a wide range of energy saving activities, many of which can be applied in the residential sector. These calculation methods deem that energy savings commence at implementation and continue into the future (**Box 4.1**). Deemed methods are specific to the type of activity (**Table 4.5**).

The **Project Impact Assessment with Measurement and Verification Method** requires the development of complex energy models to accurately predict energy savings at commercial and industrial sites.

It replaced the **Project Impact Assessment Method,** which allows an engineering assessment, measurement or modelling to be used to calculate energy savings. Accredited Certificate Providers accredited to use the Project Impact Assessment method on or before 30 September 2014 may still use it to calculate energy savings for certain projects.

The **Metered Baseline Method** encompasses a range of sub-methods designed to achieve energy savings by measuring electricity or gas consumption before and after an activity is carried out. Unlike the other methods, it does not allow deeming, or forward creation, of certificates. It includes the **NABERS Baseline** sub-method, which uses commercial buildings ratings from the National Australian Built Environment Rating System (NABERS) to measure improvements in energy efficiency.

Table 4.5 Estimated actual electricity savings by calculation method ('000 MWh)[a]

Calculation method	2009–2019[b]	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030[d]	Total
Deemed Energy Savings Method													
Commercial Lighting Formula	9,537	2,360	2,313	2,120	1,790	1,588	1,411	1,109	791	447	211	0	23,678
Sale of New Appliances	439	176	176	176	176	176	174	146	116	87	63	33	1,941
Default Savings Factors	691	0	0	0	0	0	0	0	0	0	0	0	691
Removal of Old Appliances	114	9	6	5	2	0	0	0	0	0	0	0	136
Installation of High Efficiency Appliances for Businesses	9	15	15	15	15	15	15	15	14	13	9	0	152
Public Lighting Formula	29	38	38	38	38	38	38	38	38	38	35	30	437
Home Energy Efficiency Retrofits	138	236	236	236	236	236	236	236	235	218	118	0	2,365
Power Factor Correction Formula	0	0	0	0	0	0	0	0	0	0	0	0	0
High Efficiency Motor Formula	1	0	0	0	0	0	0	0	0	0	0	0	1
Subtotal	**10,959**	**2,798**	**2,749**	**2,555**	**2,222**	**2,018**	**1,839**	**1,507**	**1,158**	**766**	**400**	**55**	**29.026**
Metered Baseline Method[c]													
Baseline per unit of output	2,250	125	0	0	0	0	0	0	0	0	0	0	2,375
Baseline unaffected by output	144	1	0	0	0	0	0	0	0	0	0	0	145
NABERS baseline	342	12	0	0	0	0	0	0	0	0	0	0	354
Normalised baseline	1,006	21	0	0	0	0	0	0	0	0	0	0	1,028
Subtotal	**3,742**	**159**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,901**
Project Impact Assessment with Measurement and Verification Method	**154**	**113**	**113**	**113**	**113**	**113**	**112**	**106**	**88**	**70**	**37**	**0**	**1,133**
Project Impact Assessment Method	**1,602**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,602**
Total	**16,456**	**3,108**	**2,899**	**2,705**	**2,372**	**2,168**	**1,988**	**1,650**	**1,283**	**873**	**473**	**63**	**36,038[e]**

a. **Box 4.2** explains the calculation methods. Methods for which certificates are yet to be created (e.g. Aggregated Metered Baseline method) are not included in this table.

b. For the period from 1 July 2009 to 31 December 2019.

c. Certificates can only be created under the Metered Baseline Method after the savings have occurred resulting in 'zero' savings for 'future' years (**Box 4.1**).

d. Clause 76(2)(e) of Schedule 4A to the Act requires the Scheme Administrator to estimate electricity savings over the next 10 years having regard to the number of certificates created.

e. Represents total electricity savings achieved under the ESS based on total certificates between 2009 and 2020.

Note. Figures are rounded to nearest integer (this rounding may result in 'zero' certificates for some years with small certificate creation). Totals may not add exactly due to rounding. Small differences in data compared with previous annual reports reflect certificates that have been forfeited after the report was released.

Table 4.6 Estimated actual gas savings by calculation method ('000 MWh)[a]

Calculation method	2009–2019[b]	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030[d]	Total
Deemed Energy Savings Method													
Installation of High Efficiency Appliances for Businesses	18	12	12	12	12	12	12	12	10	6	3	0	123
Subtotal	**18**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**10**	**6**	**3**	**0**	**123**
Metered Baseline Method[c]													
Baseline per unit of output	94	62	0	0	0	0	0	0	0	0	0	0	156
NABERS baseline	0	2	0	0	0	0	0	0	0	0	0	0	2
Normalised baseline	12	2	0	0	0	0	0	0	0	0	0	0	15
Subtotal	**106**	**66**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**172**
Project Impact Assessment with Measurement and Verification Method	**162**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**89**	**36**	**21**	**0**	**1,028**
Total	**286**	**181**	**115**	**115**	**115**	**115**	**115**	**115**	**99**	**42**	**24**	**0**	**1,323[e]**

a. **Box 4.2** explains the calculation methods. Methods for which certificates are yet to be created are not included in this table.

b. For the period from 1 July 2009 to 31 December 2019.

c. Certificates can only be created under the Metered Baseline method after the savings have occurred resulting in 'zero' savings for 'future' years (**Box 4.1**).

d. Clause 76(2)(e) of Schedule 4A to the Act requires the Scheme Administrator to estimate gas savings over the next 10 years having regard to the number of certificates created.

e. Represents total gas savings achieved under the ESS based on total certificates created between 2009 and 2020.

Note. Figures are rounded to nearest integer (this rounding may result in 'zero' certificates for some years with small certificate creation). Totals may not add exactly due to rounding. Small differences in data compared with previous annual reports reflect certificates that have been forfeited after the report was released.

Chapter 5

Scheme operations

An overview of our operations in 2020 including key scheme developments and scheme administration activities

05

In our roles as Scheme Regulator and Scheme Administrator, we are responsible for the regulation, compliance and administration of the scheme. This section outlines key scheme developments impacting the scheme and provides an overview of our operations in 2020 including our stakeholder engagement, improvements to processes and systems and our core administrative functions.

In 2020 our operations, and those of our stakeholders, were heavily impacted by the COVID-19 pandemic. Our response to COVID-19 is also discussed.

5.1 Scheme developments

A number of significant scheme developments in 2020 will shape the future direction of the scheme and impact compliance and operations. These key developments are outlined below. The risks and opportunities that these developments present are also considered.

5.1.1 Energy Security Safeguard

The NSW Government released the NSW Electricity Strategy (Strategy) in late 2019 which marked the beginning of a period of major reform for the ESS. The Strategy proposed extension and expansion of the ESS under a new name, the Energy Security Safeguard (Safeguard), to include:

- an energy efficiency scheme that will run to 2050, include more ambitious energy savings targets, and support technologies that reduce the consumption of electricity or gas from the wholesale market
- a new peak demand reduction scheme (PDRS) to support technologies that can shift demand away from peak periods.

On 13 May 2020 the *COVID-19 Legislation Amendment (Emergency Measures—Miscellaneous) Bill 2020* was passed in the Parliament of NSW. The Bill amended and restructured the Act to:

- establish the overarching Safeguard
- establish the ESS as the first scheme under the Safeguard
- insert provisions to allow for regulations to be made to establish new schemes under the Safeguard until the end of 2021.

The NSW Government has announced the PDRS will be one such scheme to be established under the Safeguard.

The overarching objective of the Safeguard is to "improve the affordability, reliability and sustainability of energy through the creation of financial incentives that encourage the consumption, contracting or supply of energy in particular ways." This objective is to be met through the operations of the schemes which are required to have objectives that align with the Safeguard objective. The objectives of the ESS remain unchanged and the objectives of the PDRS are yet to be defined.

5.1.2 Amendments to the ESS Rule

The NSW Government has committed to regularly updating the ESS Rule. Updates are managed by DPIE and aim to:

- incorporate stakeholder feedback
- maintain the effectiveness of the ESS Rule through updates to savings factors and requirements and by adding activity schedules for new technologies
- complement changes to building and equipment standards
- incorporate new energy savings methods, and
- maintain the effectiveness and integrity of the ESS Rule.

The key policy shifts being contemplated as part of upcoming rule changes involve the introduction of new hot water heating activities and reduced incentives for existing lighting activities. Further detail of the proposed changes is provided below.

New hot water heating activities

Replacing existing electric and gas hot water heaters with heat pump and solar hot water heaters in households and small businesses is proposed for inclusion as a recognised energy savings activity under the scheme. Installing and replacing heat pump hot water heaters in commercial and industrial premises is also being considered. This amendment is an opportunity to incentivise new activities that will complement the expanded ESS under the Safeguard.

The Victorian Energy Upgrades (VEU) program already incentivises the installation of heat pump and solar hot water heaters in residential premises in Victoria. The NSW Government has elected to align the new activities with the VEU activities as much as possible, providing process efficiencies for Accredited Certificate Providers. It also provides an opportunity to adopt the existing VEU product register or develop a joint registry with the VEU program rather than developing a standalone ESS product register for these new products. Again, this provides efficiencies for Accredited Certificate Providers and manufacturers, as well as minimising costs.

Reduced incentives for lighting activities

In 2020 DPIE conducted a review of lighting activities in the ESS and found the energy efficiency of lighting technologies has advanced significantly since the scheme commenced. It questioned whether an incentive should still be provided for the installation of energy efficient lighting (i.e. LEDs), which is now industry standard practice. The review recommended reducing the incentives available for lighting activities from 2022 to reflect the reduced energy savings now offered by energy efficient lighting.

The proposal to wind down lighting activities aligns with the principle of the scheme to only incentivise activities where energy savings are additional. However, it may also present some compliance challenges. Three-quarters of certificate creation for the past 5 years has been from lighting activities in the commercial, small business and residential sectors. Reducing support for lighting activities is likely to have a significant impact on the scheme and drive the uptake of other existing or new activities. Historically non-compliance has increased as Accredited Certificate Providers become experienced in new activities and methods. This is a risk that will need to be managed through increased guidance and support.

5.2 Stakeholder engagement

In 2020 stakeholder communication and engagement remained a priority. Empowering stakeholders by developing engagement strategies, information products and tools improves understanding of ESS requirements and facilitates compliance.

Our focus on stakeholder engagement is reinforced by the IPART strategic plan which establishes stakeholder engagement as one of 4 key focus areas. The strategic plan aspires that stakeholders:

- know when we're doing something that affects them
- are kept informed in a way they can easily understand
- are listened to when they express their views and concerns
- can see how their views and ideas were considered in our decisions
- understand that we followed a fair process.

Our approach to stakeholder engagement will continue to align with these key principles.

5.2.1 Stakeholder Engagement Charter

In 2020 we developed the ESS Engagement Charter in consultation with stakeholders.[z] The charter sets out our commitment to engage with stakeholders, how we will engage and who to approach about different aspects of the ESS (i.e. IPART or DPIE). The charter is the first phase in developing our Stakeholder Management Plan. Consultation on stakeholder engagement will continue in 2021 as we seek to understand our stakeholders needs and how best to meet them.

[z] *IPART*, Energy Savings Scheme Engagement Charter, *March 2021*

5.2.2 Stakeholder consultation

We also conducted 2 other consultations with stakeholders in 2020, with the following outcomes:

- We removed from the public list lighting products with switchable wattage settings that were submitted for acceptance at a wattage level other than the highest wattage setting after consultation in December 2020.[aa],[bb] We worked with stakeholders and the Victorian Essential Services Commission to ensure our position was, as far as possible, consistent with the VEU program and industry practices.
- We introduced a standard detailed scope of works (DSW) for audits of Scheme Participant's Annual Energy Savings Statements.[cc]

5.2.3 Increasing engagement with key stakeholders

Throughout the year we hold various events including stakeholder updates, information sessions and consultations. These events are held as needed and based on demand. In 2020 the IPART Chair, CEO and ESS Committee attended our annual Stakeholder Update. The session included presentations on our draft ESS Engagement Charter, business improvements to assist stakeholders, and our decision-making process. With COVID-19 Public Health Orders in place, the forum was held online for the first time. Holding the forum online resulted in increased participation with more than 130 stakeholders attending.

In 2020 we also increased our engagement with key government and industry peak bodies by:

- increasing our collaboration with the Victorian Essential Services Commission to align ESS and VEU rules and processes for new activities where possible, explore joint product registries for new hot water activities and share information and outcomes from consultations
- working collaboratively with DPIE on forthcoming changes to the ESS Rule
- commencing a series of Project Impact Assessment with Measurement and Verification Method workshops with the Energy Savings Industry Association.

These ongoing collaborations aim to benefit our stakeholders by providing clearer requirements and guidance, improving efficiencies and minimising red tape.

[aa] IPART, Energy Savings Scheme Notice 05/2020 – *Cease acceptance of luminaires at lower wattage settings*, 4 December 2020
[bb] IPART, Information Paper – *Removal of LCPs not at rated power*, 29 March 2021
[cc] IPART, Fact Sheet – *Standard approach to submitting DSW - AESS*, 28 January 2021

5.3 Scheme administration

5.3.4 Improvements to processes and systems

We are committed to finding ways to make it easier for our stakeholders to do business with us and continuously look for opportunities to streamline our processes, increase efficiency and reduce red tape. As part of this ongoing review and in response to stakeholder feedback, we introduced a number of business process and systems improvements in 2020 and early 2021, including:

- the Minister approving the delegation of certain accreditation, amendment, audit and cancellation related decisions to the ESS Executive Director
- improving our website content and guidance material to improve usability and accessibility and increase clarity about ESS requirements
- streamlining and simplifying the process for new accreditation applications, including a shorter application guide and form and a streamlined path for qualifying 'lower risk' applicants with existing ESS accreditations
- releasing a new feature on the ESS Portal to track audit recommendations.
- updating the ESS Registry to make it easier for Accredited Certificate Providers to find out how many certificates they can register before their limits are reached.
- using of e-signatures in our formal documentation.

5.3.5 Core administrative tasks

Our administrative function involves facilitating the day-to-day operation of a scheme that is legally complex and changes frequently. Our core administrative tasks include assessing applications, managing Accredited Certificate Provider accreditations, and managing the membership of our Audit Services Panel and Measurement and Verification Professionals. In 2020 we:

- approved 8 applications and refused one application for accreditation across 3 calculation methods (**Figure 5.1**). Processing time for applications for accreditation decreased by 16% compared with 2019 and we anticipate further reductions in 2021
- approved 41 amendments to the conditions of existing accreditations. Most amendments were requests by Accredited Certificate Providers to change the limit on the number of certificates that can be created between audits, expand or change the activity description, or change the audit requirement or audit due date
- cancelled 8 accreditations. Five cancellations were at the request of the Accredited Certificate Provider in response to our ongoing process of identifying and actively managing accreditations that were either inactive, or no longer eligible to create certificates. Three cancellations were in response to non-compliance (section 3.2.4)
- accepted 1,265 emerging lighting technologies for use under the ESS
- administered the Audit Services Panel

- approved 3 new Measurement and Verification Professionals.

Key statistics of our core administrative functions are detailed in **Table 5.1**.

Figure 5.1 New accreditations by calculation method

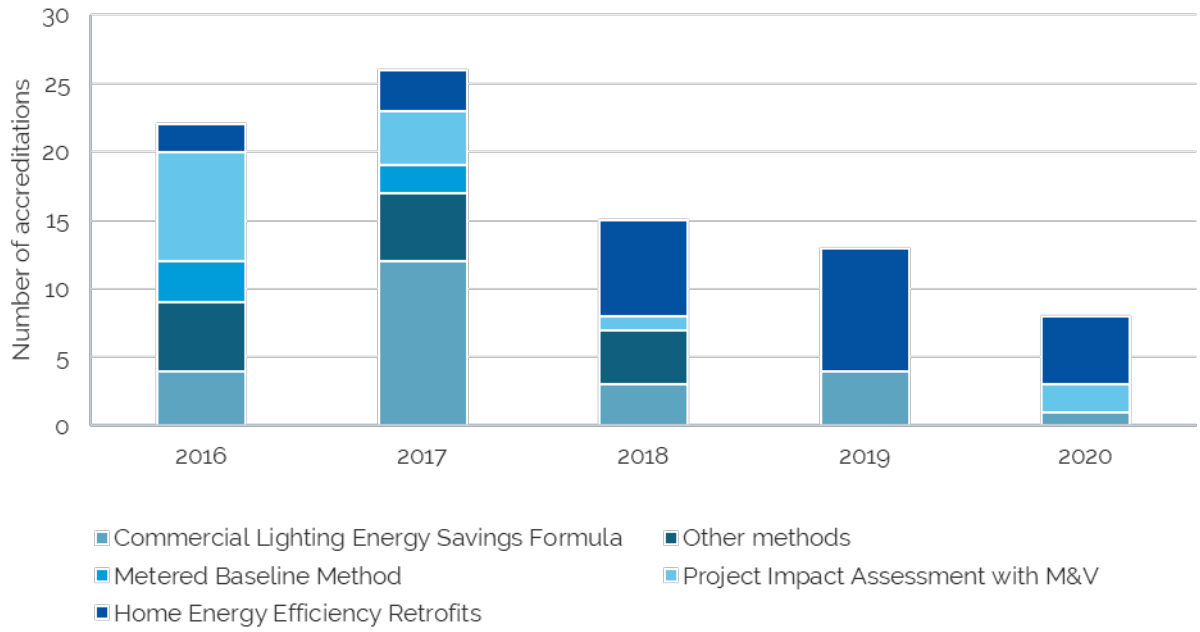


Table 5.1 Core administrative functions – statistics

Function	2016	2017	2018	2019	2020
Administration of Accredited Certificate Provider accreditations					
Number of applications approved	22	26	15	13	**8**
Number of applications refused	0	0	1	0	**1**
Number of amendments to conditions of accreditation	96	64	45	53	**41**
Number of cancellations of accreditation	51	22	18	8	**8**
Number of accreditations as at 31 December	171	175	172	177	**177**
Average number of days to process applications for accreditation[a]	92	118	139	171	**144**[b]
Applications for acceptance of emerging lighting technologies					
Number of products accepted for use under the Commercial Lighting Energy Savings Formula method[c]	2,399	1,887	1,792	1,409	**1,128**
Number of products accepted for use under the Home Energy Efficiency Retrofits method	N/A	N/A	90	105	**137**
Average number of days to process applications[a]	35	15	17	16	**15**
Administration of Audit Services Panel					
Number of lead auditors approved	3	0	0	1	**0**
Number of PIAM&V auditors[d] approved	7	0	0	0	**0**
Number of lead auditors removed	1	1	4	0	**0**
Number of PIAM&V auditors[d] removed	0	1	0	0	**0**
Number of lead auditors as at 31 December	33	32	29	30	**30**
Number of PIAM&V auditors[d] as at 31 December	7	6	6	6	**6**
Number of auditor firms as at 31 December	17	16	16	17	**17**

Function	2016	2017	2018	2019	2020
Applications for approval as a Measurement and Verification Professional					
Number of M&V Professionals approved	8	3	2	1	**3**
Number of M&V Professional approvals withdrawn	0	0	0	2	**0**
Number of Measurement and Verification Professionals as at 31 December	8	11	13	12	**15**

a. Processing times include days taken by the applicant to respond to requests for information.
b. Does not include the time taken to complete the application that was refused because there were significant matters to consider.
c. Includes applications accepted via the Victorian Energy Upgrades program pathway.
d. These auditors have been approved by the Scheme Administrator as being suitably qualified to conduct audits of certificates created under the Project Impact Assessment with Measurement and Verification (PIAM&V) method

5.4 COVID-19 response

In early 2020, key compliance and certificate deadlines for the 2019 compliance year fell within a period of heightened COVID-19 restrictions. Our 2019 Annual Report detailed the assistance we provided to Scheme Participants and Accredited Certificate Providers, including providing extensions to the audit and certificate surrender deadlines for Scheme Participants and allowing flexibility in some aspects of audits for Accredited Certificate Providers.

For the 2020 compliance year, relief for small retailers was provided through a Ministerial Order (chapter 2) and we redesigned our processes to accommodate the exemptions with minimal red tape. We continue to account for the impacts of the pandemic when making decisions and considering requests for audit waivers, amendments and extensions. However, we also expect businesses that wish to retain accreditation in the ESS to make necessary adjustments in response to the pandemic.

We continue to monitor and respond to the impacts of COVID-19 on a case by case basis.

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