IPART Energy Sustainability Schemes

Energy Security Safeguard Schemes 2022–23

SCHEMES UPDATE

March 2024

Acknowledgment of Country

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

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

1.

About us

The Independent Pricing and Regulatory Tribunal (**IPART**) is an independent, strategic agency of NSW Government that regulates key markets and government services to ensure effective social, environmental, and economic outcomes. We have statutory and commissioned roles in the energy, water, local government and transport sectors, but also provide reviews of other services as needed.

We were appointed by the Minister for Energy to administer and regulate the Energy Security Safeguard (**Safeguard**) schemes. The NSW Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) is responsible for developing Safeguard policy and the legislation that is the legal framework of the schemes.

1.1 About the schemes

The Safeguard includes the Energy Savings Scheme (**ESS**), the Peak Demand Reduction Scheme (**PDRS**) and the Renewable Fuel Scheme (**RFS**), which is set to commence in 2025.

The ESS and PDRS work by creating a market for certificates:

HOUSEHOLDS AND BUSINESS

- Engage ACP to do activity
- Assign energy saving or peak reduction capacity to ACP
- Receive discount from ACP

ACCREDITED CERTIFICATE PROVIDERS

- Create certificates
- Sell certificates

SCHEME PARTICIPANTS*

- Purchase certificates
- Surrender certificates to meet target

* Scheme Participants (mainly electricty retailers) are legally required to participate in the schemes and must surrender certificates to meet an individual annual target.

Eligible activities include efficient household equipment such as lighting, air conditioners and water heaters and upgrades at commercial and industrial sites. For more information on the schemes see our website.

1.2 This paper

Our terms of appointment as Scheme Regulator and Scheme Administrator include reporting requirements. This paper meets this requirement and provides information about Accredited Certificate Provider (**ACP**) activities and certificate creation as well as the number of Scheme Participants in the ESS up to 31 December 2022.[a]

As the PDRS recently commenced, we have provided ACP and certificate creation information over the first year of operation (up to 31 March 2023)[b] and for the first 6 months of the current compliance year (1 April to 30 September 2023). Scheme Participant numbers at 31 March 2023 are reported in this paper.

This paper doesn't include data on Scheme Participant compliance as reporting has not been finalised for the 2022 compliance year. This information will be reported in the Safeguard Annual Report, which will be published in mid-2024.

This paper presents selected data graphically and describes highlights. Detailed data tables for accreditations, certificate creation and energy savings realised and forecast for different calculation methods, activities and fuels are provided in a supplementary Excel spreadsheet.

a The deadline for creating certificates from ESS activities implemented in 2022 was 30 June 2023.

b The deadline for creating certificates from PDRS activities implemented to 31 March 2023 was 30 September 2023.

1.3 How the paper is structured

Chapters 2 and 3 of this paper provide high level information about the ESS and PDRS respectively. Chapter 4 discusses our approach to compliance.

2.

The Energy Savings Scheme

The Energy Savings Scheme (**ESS**) provides financial incentives to install or modify equipment in NSW households and businesses to be more energy efficient. Read more about the ESS on our website. The ESS uses the calendar year for compliance reporting. All ESS data reported here relates to the 2022 calendar year.

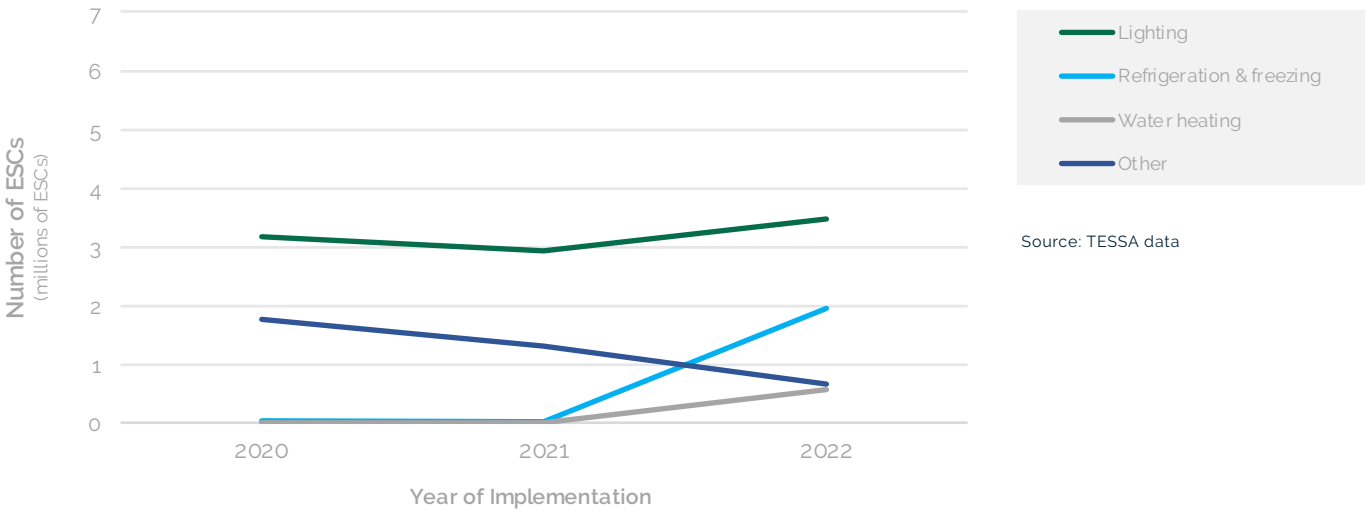
2.1 Activity in the ESS

In 2022, 6.64 million Energy Savings Certificates (**ESCs**) were created, an increase of 55% from 2021. This surpassed the anticipated 2022 certificate target of 4.9 million ESCs to be met by 119 Scheme Participants. Counting the existing surplus, 12 million ESCs are available to meet the target.

As in past years most certificates were created from lighting projects, however as refrigerated cabinets and heat pump hot water activities have started to contribute, the percentage of certificates from lighting projects has dropped for the first time. The refrigerated cabinet activity initially drove activity and, in some instances, resulted in complaints and undesirable behaviour. To address this behaviour the Government made changes to the Energy Savings Scheme Rule of 2009 (**ESS Rule**) in August 2022 to reduce incentives and introduce a co-payment. These changes significantly reduced these activities. Figure 2.1 provides a breakdown of certificate creation by activity.

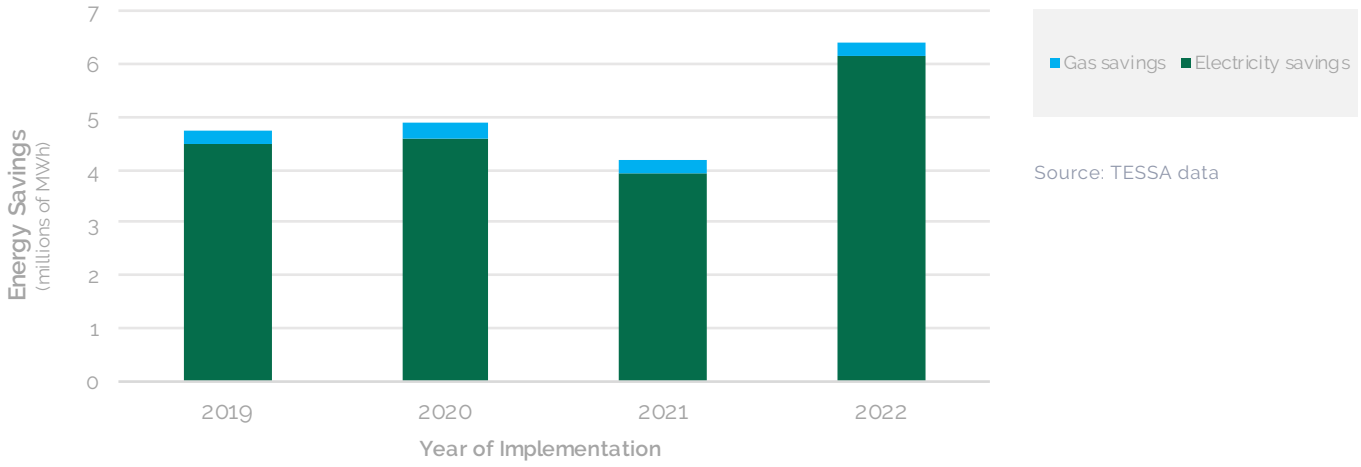
Energy savings also increased in 2022 (Figure 2.2), but savings from gas as a percentage of total savings dropped. This decline is likely to continue as the ESS Rule is now encouraging the switch from gas to electricity. See the Supplementary tables for more detailed data on certificate creation and energy savings.

Figure 2.1 Certificate creation by activity



Source: TESSA data

Figure 2.2 Energy savings by fuel

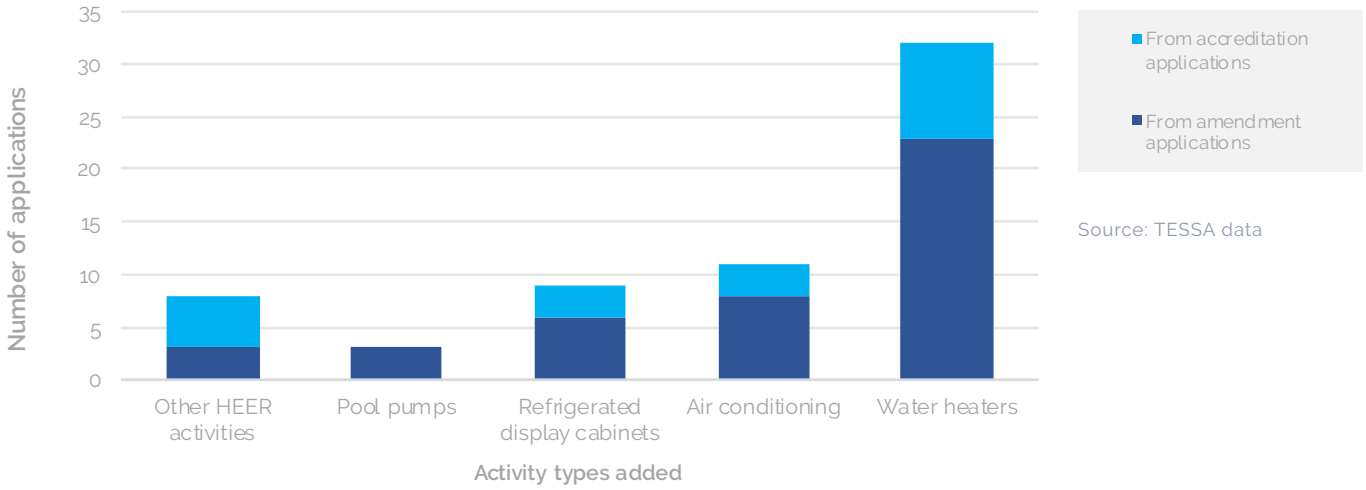


Source: TESSA data

2.2 Activity in applications

Applications for new accreditations and amendments increased in 2022. Most applications (12 of 15) were for Home Energy Efficiency Retrofits (**HEER**) and/or Installation of High Efficiency Appliances for Business (**IHEAB**) methods and included refrigerated cabinet and heat pump activities. For more detailed data on applications for and amendments to accreditations see the Supplementary data tables.

Figure 2.3 Applications to add activities to accreditations



Source: TESSA data

Over 1440 new lighting and water heater products were registered in 2022, up 45% on 2021. While lighting products still dominated, water heater products represented 40% of all product registrations in 2022. See the Supplementary data tables for more details.

2.

2.3 Benefits for the environment and consumers

In 2022, 235,866 households and businesses benefitted from 325,412 upgrades under the scheme. Estimated bill savings for NSW households and businesses was $669 million (up 17% from 2021). Net costs savings to NSW consumers, which takes into account charges of $156 million passed through by electricity retailers, was $513 million (up 29% from 2021).

Upgrades to more energy efficient equipment in the years to 2022 delivered greenhouse gas emissions reductions in 2022 of 3.17 million tonnes of CO2 equivalent (**CO2-e**) from electricity savings and 50,000 tonnes of CO2 e from gas savings (up 5.1% from 2021). Emissions reductions are based on 2022 electricity and gas savings using the approach and emissions factors set out in the 2022 National Greenhouse Accounts Factors, published by Commonwealth DCCEEW. This is equivalent to 3 months of emissions from NSW's largest coal fired power station.[c]

Looking forward the scheme is estimated to reduce emissions by 8.8 million tonnes of CO2-e over the 10 years 2023–2032 and takes into account that the emissions factor for grid electricity will reduce with more renewables coming into the network.[d]

c Emissions calculated using average of total emissions for Eraring Power Station for the previous 10 reporting years, from National greenhouse and energy reporting data, published by CER.

d Future emissions reductions are based on projected electricity and gas savings using the approach set out in the National Greenhouse Accounts Factors, projected emission factors for Australia's electricity grid in the base scenario (Appendix C of Australia's emissions projections 2022, DCCEEW) and gas emission factor set out in the 2022 National Greenhouse Accounts Factors.

3.

The Peak Demand Reduction Scheme

The Peak Demand Reduction Scheme (**PDRS**) aims to reduce peak electricity demand in NSW by providing financial incentives to Accredited Certificate Providers (**ACPs**) to implement activities in households and businesses that can reduce demand for electricity during peak times over summer. Read more about the PDRS on our website.

The PDRS commenced on 1 November 2022 and included 7 peak demand savings activities set out in the Reducing Demand Using Efficiency (**RDUE**) sub-method: commercial heat pump water heaters, refrigerated cabinets, pool pumps, high efficiency pumps, removal of old refrigerators, and residential and commercial air conditioning.

The first compliance period was from 1 November 2022 to 31 March 2023. The information in this paper relates to this period except where indicated otherwise.

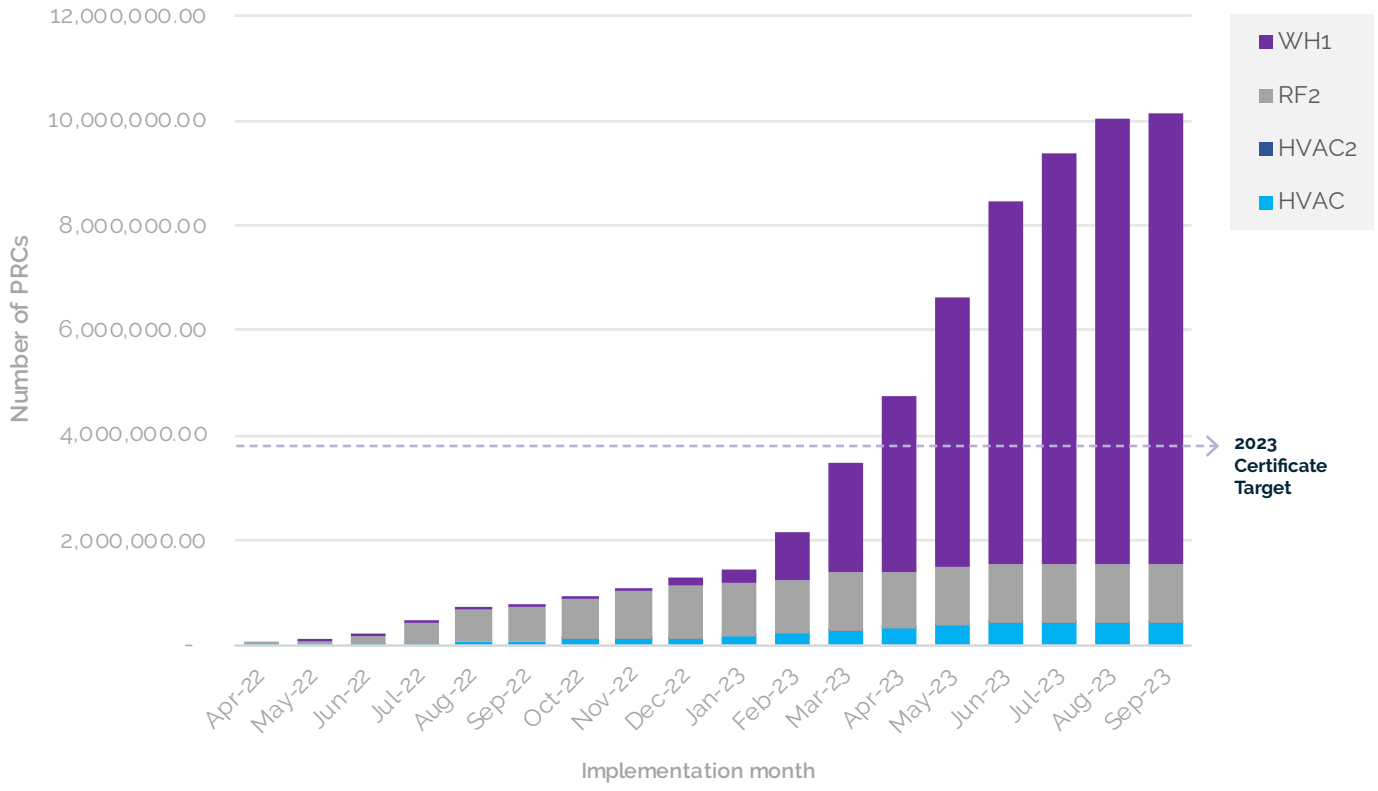
3.

3.1 The scheme certificate target and PRC creation

The scheme certificate target for the first compliance period (1 November 2022 to 31 March 2023) was 3,911,112 PRCs. One PRC is equivalent to 0.1 kW of peak reduction capacity, averaged over one hour. In the first compliance year 109 Scheme Participants have an obligation to surrender PRCs or pay a penalty to meet their share of the target. Note the number of Scheme Participants in the ESS and PDRS differs due to the different compliance year. You can read more about Scheme Participant liabilities on our website.

ACPs created 3.49 million PRCs from heat pump and refrigerated cabinet activities implemented up to 31 March 2023. By 30 September 2023, an additional 6.6 million PRCs were created for implementations after 31 March 2023, bringing the total PRCs created to 10.1 million PRCs (see Figure 3.1 below). This exceeds the 2022–23 scheme target.

Figure 3.1 Cumulate PRC creation by activity to 30 September 2023



3.

3.2 The peak reduction in Year 1 is small

The scheme has a peak demand reduction target of 0.5% for the 2022-23 compliance period. Based on the maximum measured demand for the same compliance period (12,502 MW), this equates to a peak demand reduction capacity of 62.5 MW. In the first year, actual capacity to reduce demand delivered by the scheme was 4.77 MW or about 7% of the targeted peak demand reduction.

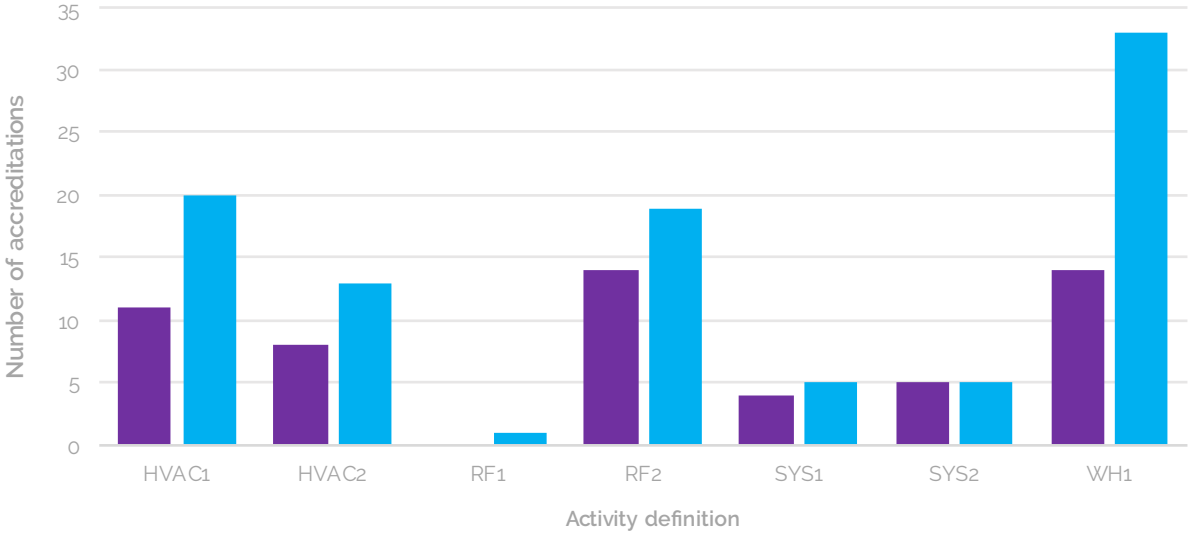
As activities deliver peak reduction capacity over their lifetime (up to 12 years), PRCs are apportioned across future compliance periods. This means that the annual peak reduction is expected to increase significantly due to the cumulative effect of peak demand savings activities and the introduction of new peak demand reduction methods.

3.3 Applications activity

Twenty ACPs were accredited in the PDRS by the end of the first compliance year (31 March 2023) and a further 17 ACPs were accredited by 30 September 2023. Most ACPs applied for water heater, refrigerated cabinet and air conditioning activities. Since becoming accredited, 4 ACPs added new activities to their accreditations. Figure 3.2 presents the number of ACPs accredited for each PDRS activity.

In addition to applications for accreditation, 70 heat pump water heater products were accepted for use in PDRS Activity Definition WH1 by 31 March 2023.

Figure 3.2 Accreditations by activity at 31 March and 30 September 2023[a]



a ACPs can be accredited for multiple activities.

Source: TESSA data.

See the Supplementary tables for more detailed data on PDRS accreditations and amendments.

4.

Compliance priorities

In September 2022 we published our 2022–23 Energy Security Safeguard Compliance Priorities for the first time, setting out that we would focus our compliance resources for the year on the following:

- Peak Demand Reduction Scheme
- refrigerated cabinets, heat pumps and solar water heaters
- manipulation of implementation evidence
- scheme participant liability
- consumer protection.

While we don't have a direct role in consumer protection, in our role as Scheme Administrator we implement rules and develop guidance that promote good consumer outcomes, which are integral to achieving scheme objectives. We also work with NSW Fair Trading, which has a role in safeguarding consumer rights and can provide information to assist in resolving complaints and disputes.

Being transparent about our compliance priorities helps businesses understand where compliance attention will be focussed and take steps to address identified risks. It helps us target resources to areas of greatest risk and maintain the integrity of the schemes to realise positive sustainability outcomes for the people of NSW. A full discussion of our compliance priorities at work will be provided in the annual report.

4.1 Focus on emerging risks

As a risk-based regulator we use audits (see section 4.2), market intelligence and implementation data to continually monitor activities in the Schemes. This helps us identify and act on emerging issues to reduce the risk and protect the integrity of the scheme, and to provide feedback to DCCEEW – the policy maker – to inform further decisions on scheme policy settings.

In 2022, we identified that the installation of new refrigerated display cabinets in small business settings and heat pump water heater activities presented emerging risks due to rapid uptake (1.8 million ESCs were created from refrigerated cabinet activities in 2022) and the use of aggressive marketing models.

To protect consumer interests and the integrity of the scheme we issued an Information paper in June 2022 to communicate our concerns about potential non-compliant behaviour and the calculation of energy savings related to refrigerated display cabinets. We also worked with DCCEEW and industry to change the ESS Rule to introduce a $250 co payment to this activity and split it into 2 categories – new and replacement – to improve activity tracking. These changes commenced in August 2022.

Water heater activities were slower to roll out with residential heat pumps starting to build up from July 2022 and commercial heat pump activities starting in late 2022. We first received some reports of concerning behaviour in the execution of this activity toward the end of 2022. To proactively manage this risk we released an information paper in March 2023. This information sought to notify businesses of the risk of non compliance, assist businesses in understanding their compliance obligations, and encourage good compliance practices.

4.2 Auditing compliance

We undertake various compliance activities in our role as Scheme Administrator and Regulator. These activities include compliance education, audits, investigations, and responding to inquiries and complaints.

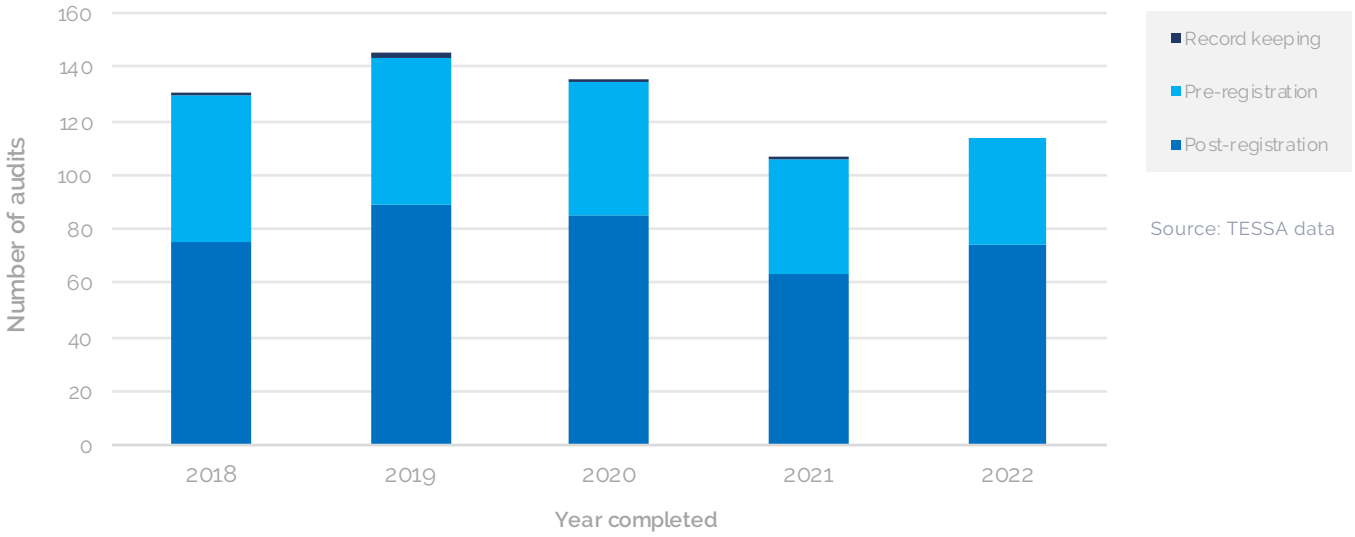
Audits are a key tool we use to monitor compliance. They provide an independent conclusion about compliance with the requirements of the Energy Security Safeguard schemes, including whether certificates have been properly calculated in accordance with the legislation. Audits also provide both us and businesses with information about compliance risks and how to improve future performance by identifying areas of concern and opportunities for continuous improvement.

At 30 September 2023, 14 audit businesses were approved to conduct audits in the schemes.

In 2022, 114 ESS audits were completed (Figure 4.1).

4.

Figure 4.1 ESS audits completed by audit type, 2018 to 2022



Source: TESSA data

PDRS audits commenced in the third quarter of 2023, with 14 PDRS audits completed to 30 September 2023. Compliance levels are high and where issues are identified in audit, recommendations are made to improve compliance.

See the Supplementary tables for more detailed audit data.