

Inspections update No. 24: Small-scale Renewable Energy Scheme 2024–25 inspections program

Summary

This update provides an overview of the Small-scale Renewable Energy Scheme (SRES) inspections program as of 30 June 2025. It summarises the results of inspections on small-scale rooftop solar Photovoltaic (PV) systems installed from 1 July 2023 to 30 June 2024.

During the 2024–25 inspection program, the Clean Energy Regulator (CER) conducted 2,586 solar PV inspections. The proportion of systems with a substandard rating in 2024 fell to a low of 18.7% compared to 22.6% in 2023 and 24.6% in 2022. This downwards trend marks a significant improvement in installation quality. It also reflects the effectiveness of industry engagement, which has strengthened installer understanding of their obligations under relevant Australian standards and industry guidance.

Another key to this improvement was the collaborative review process with inspection companies. Together we reviewed and updated checklist items to better reflect Australian standards, emerging risks and ensure the inspection program remains current and effective.

These procedural enhancements have improved reporting accuracy. For instance, installations that were previously rated as substandard based on broad general clauses or at an individual inspector's discretion can now be assessed more precisely using refined, specific clauses. The updated ratings more effectively identify installations that present genuine long-term risks or fail to meet key requirements under Australian standards or industry guidelines.

SRES inspections program

The CER inspections program ensures selected systems under the SRES comply with installation requirements and are eligible for [small-scale technology certificates](https://cer.gov.au/schemes/renewable-energy-target/small-scale-renewable-energy-scheme/small-scale-technology-certificates/create-small-scale-technology-certificates)¹ (STCs).

The program is designed to support, not replace existing jurisdictional electrical safety regulations. Through a coordinated cross agency approach the CER works alongside state and territory electrical safety authorities to support each other's inspection and compliance programs.

¹ <https://cer.gov.au/schemes/renewable-energy-target/small-scale-renewable-energy-scheme/small-scale-technology-certificates/create-small-scale-technology-certificates>



Participation in an inspection is voluntary for system owners; however, it is encouraged. Inspections reassure the system owner that the installation is safe and meets all requirements. They also play an important role in supporting the integrity of the SRES.

The program uses a statistically significant random sampling method to inspect solar PV installations across Australia. In addition to random sampling the CER may also choose to inspect solar PV installations at any time when it is appropriate or necessary to do so. These inspections are initiated based on internal compliance intelligence, risk assessments and broader program priorities. These inspections help:

- confirm improvements in installer practices or training outcomes
- identify specific trends, risks or areas of concern
- build intelligence or gather evidence for future compliance actions.

The CER shares the following information from both the random sample and any appropriate or necessary inspections with state and territory electrical authorities and Solar Accreditation Australia (SAA), the accreditation body for solar PV installers and designers.

Shared information may include:

- aggregate inspection results and outcomes
- adverse findings from inspection reports
- actions carried out by the CER including declarations for removing participants from the scheme and compliance or enforcement action conducted by the CER on scheme participants.

This collaborative approach helps support continuous improvement of industry standards through targeted education and awareness initiatives.

Each inspection generates a report based on physical findings from a checklist. Reports are provided to the system designer, installer, registered agent and the system owner or occupier, regardless of the inspection rating. This process:

- ensures transparency and scheme integrity
- allows installers to address non-compliance
- provides assurance to system owners.

The CER administers the SRES inspections program under the [*Renewable Energy \(Electricity\) Act 2000*](#)² and the [*Renewable Energy \(Electricity\) Regulations 2001*](#)³.

Compliance and enforcement actions

While the CER does not have direct authority over electrical safety matters, the CER can take compliance action under the *Renewable Energy (Electricity) Regulations 2001*. This includes declaring individuals ineligible to participate in the SRES or pursuing civil or criminal enforcement action. The CER will also refer all relevant matters to state and territory electrical safety authorities for further action when required.

² <https://www.legislation.gov.au/C2004A00767/latest/text>

³ <https://www.legislation.gov.au/F2001B00053/latest/text>



Inspections program ratings

The SRES inspections program uses a standardised checklist developed with industry experts. This checklist reflects relevant regulations, Australian standards and industry best practice requirements. Inspectors assess each solar PV installation against the checklist and assign one of three ratings:

- compliant/adequate
- substandard
- unsafe

Compliant/adequate solar PV installations

These installations meet the required standards. Some minor non-compliance may be identified, but they do not compromise safety or performance of the system. Installers and designers are expected to review and address any non-compliant issues to prevent recurrence in future installations.

Substandard solar PV installations

A substandard installation does not meet one or more key clauses in the Australian standards or industry guidelines. While they do not pose an imminent safety risk, they may affect system performance or lead to future issues. However, the system is safe to remain in operation and is not an immediate cause for concern. The installer is required to return to site to rectify these issues.

A substandard rating can be:

- **Automatic** – triggered by one or more checklist items that require rectification work.
- **Discretionary** – applied by inspectors when multiple issues collectively warrant a substandard rating.

Variations of substandard can be:

- **Substandard due to third party incident** – Applied when the system was likely compliant at installation but has since been damaged or altered by external factors (e.g. hail damage or improper re-installation after roof access).

When a substandard system is identified the inspector will:

- inform the homeowner/occupier of the issues and next steps
- provide a draft inspection report with recommendations to the installer, designer and registered agent of the systems for action and comment.

Unsafe installations

Unsafe installations pose immediate or potential safety risks and hold the highest risk rating. The installer must return to site to rectify issues and return the system to a safe operational status as soon as possible.

An unsafe system can be:

- **Automatic unsafe** – triggered by critical checklist items such as:
 - exposed live wires or parts
 - solar PV panels not securely mounted
 - water damage to DC isolators (near inverter or rooftop)
 - water damage to cable junction boxes.



- **Discretionary unsafe** – applied when multiple non-compliant items, though not individually critical, collectively present a significant safety risk.

Variations of unsafe can be:

- **Unsafe due to product recall** – applied when a recalled component is identified that may compromise system safety.
- **Unsafe due to third party incident** – applied when a system was likely compliant at installation but has been damaged or interfered with post installation, resulting in a safety hazard.

When an unsafe system is identified the inspector will:

- shut down and render the system safe
- directly inform the homeowner/occupier with details and next steps
- notify the relevant state or territory electrical authority, the CER, SAA and the distribution network service provider within 24–48 hours
- provide a draft report to the installer, designer and registered agent for action and comment.

Installers are required to return to site to rectify issues identified under the automatic or discretionary categories of unsafe and substandard ratings.

Where a system is rated unsafe or substandard due to external factors, such as product recalls or third-party incidents, the installer will still receive the inspection report and may assist the homeowner in addressing the identified issues. However, in these cases, the installer may not be responsible for the cause if the rating.

Inspections results

During the 2024–25 financial year inspection program, the CER conducted 2,586 solar PV inspections installed under the SRES between 8 July 2021 to 19 March 2025 (Figure 1). This includes:

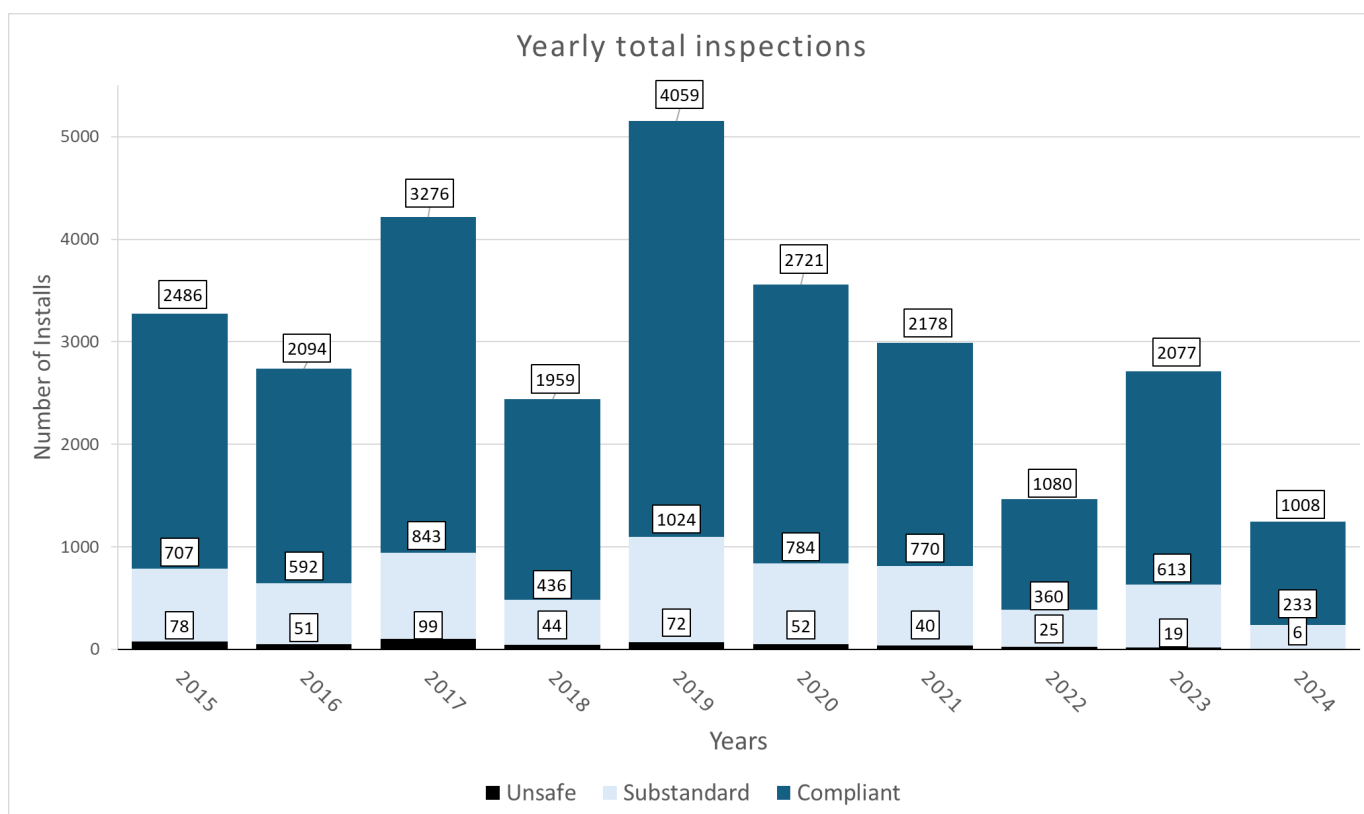
- 2,532 random sample inspections
- 54 appropriate or necessary inspections.

From May 2011 (when the inspection program began) to 30 Jun 2025, 45,470 inspections have been conducted on solar PV installations that have occurred since 2010 (Figure 1).

The CER now aims to allow 6 to 18 months between system installation and inspection. This is a shorter period compared to previous years, as it helps the CER to identify key electrical safety risks or trends sooner, and to notify state and territory electrical authorities and SAA so they can be addressed promptly.



Figure 1: Yearly solar PV inspections for installations from 2015 to 2024



Note: Data for the 13,026 solar PV installations inspected from 2009 up to 2014 are not displayed in Figure 1 or in this update. Information for these can be found in previous updates.

The inspection program generally focuses on systems installed in the previous financial year. The information in this report has been provided by calendar year, with previous inspection programs contributing to the annual results. For example, the 2023–24 financial year contributes to the cumulative 2023 annual results (Figure 1). As such, results for 2024 will change when the inspection program for 2025–26 has concluded.

The following analysis provides information and results on the inspection program that was conducted for the 2023–24 financial year only. Graphs provided in this update indicate year on year comparisons.

Random inspections

During the 2024–25 financial year, a total of 2,532 solar PV systems that were installed under the SRES between 1 July 2023 and 30 June 2024 and were randomly selected for inspection. Of those, 1,335 were installed in 2023 and 1,197 in 2024.

The number of random inspections and the ratings of the installation in each state and territory can be found in [Appendix A](#).

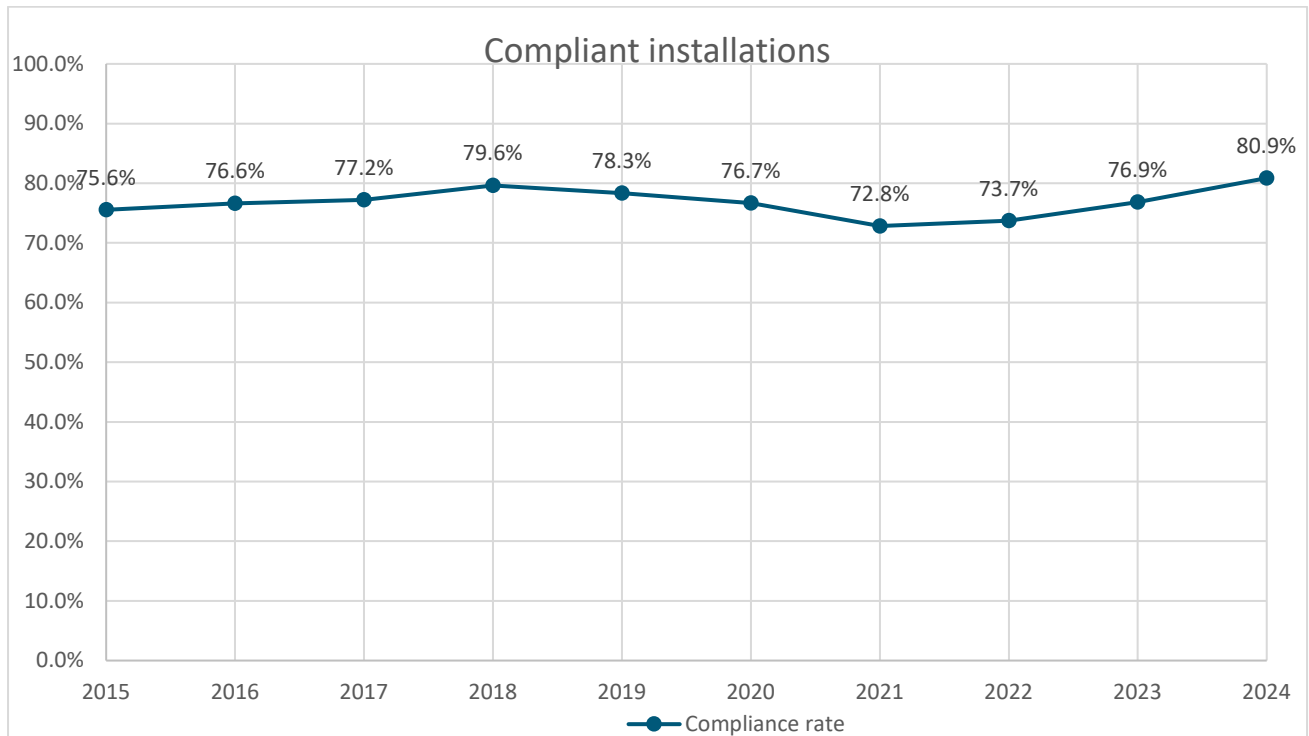


Compliant solar PV installations from random sample of inspections

From the 2024–25 inspections program, the following solar PV systems were compliant (Figure 2):

- 1,049 installations representing 78.6% of systems installed in 2023.
- 968 installations representing 80.9% of systems installed in 2024.

Figure 2: Compliant solar PV system by year



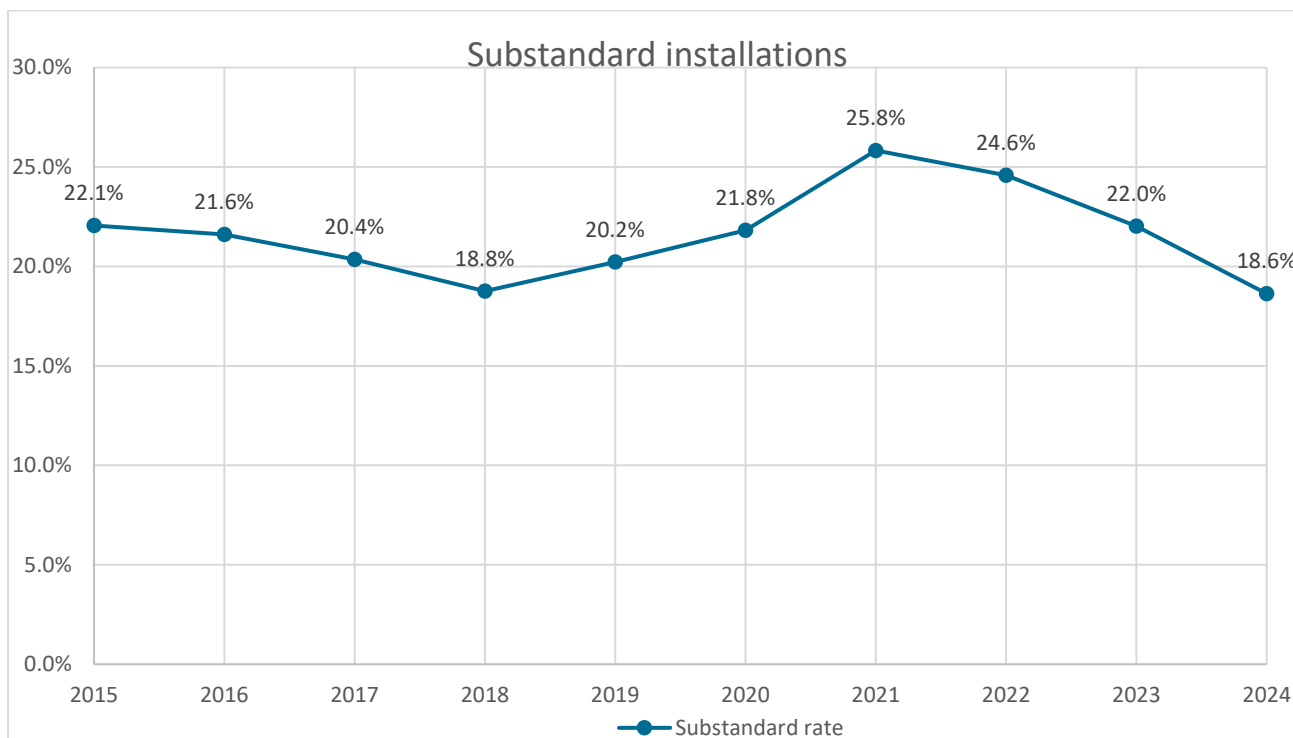


Substandard solar PV installations from random sample of inspections

For the 2024–25 inspections program, the following were rated substandard (Figure 3):

- 262 installations representing 19.6% of systems installed in 2023.
- 223 installations representing 18.6% for systems installed in 2024.

Figure 3: Substandard solar PV systems by year



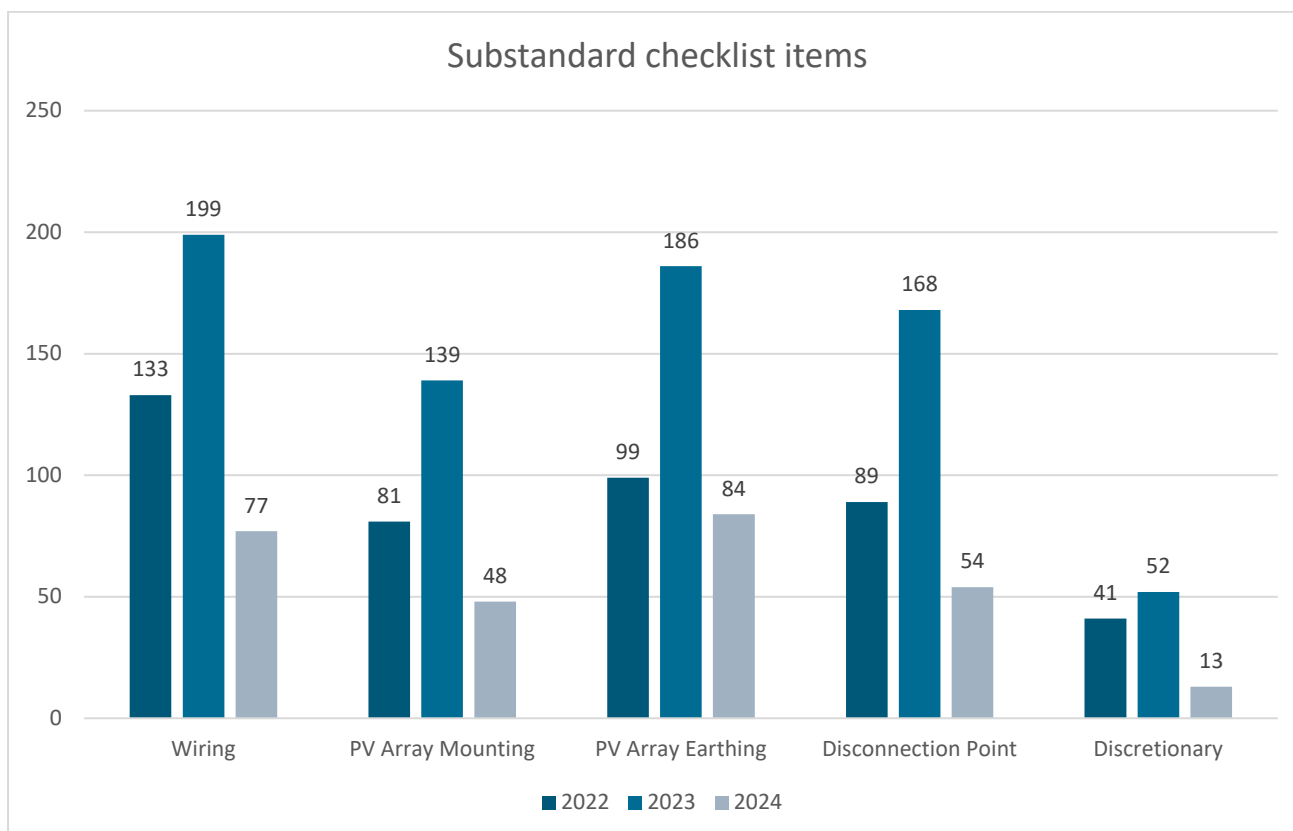


Common causes of substandard installations

During the 2024–25 inspection program, the most common issues leading to systems being rated substandard include (Figure 4):

- wiring issues
- PV array mounting
- PV array earthing
- disconnection points
- discretionary substandard.

Figure 4: Common causes of substandard installation conducted in 2022–2024



Note: total numbers of causes for substandard installations are not equal to substandard totals provided, as more than one non-compliant checklist item may be selected in an inspection to make a single systems substandard.



Unsafe solar PV installations from random sample of inspections

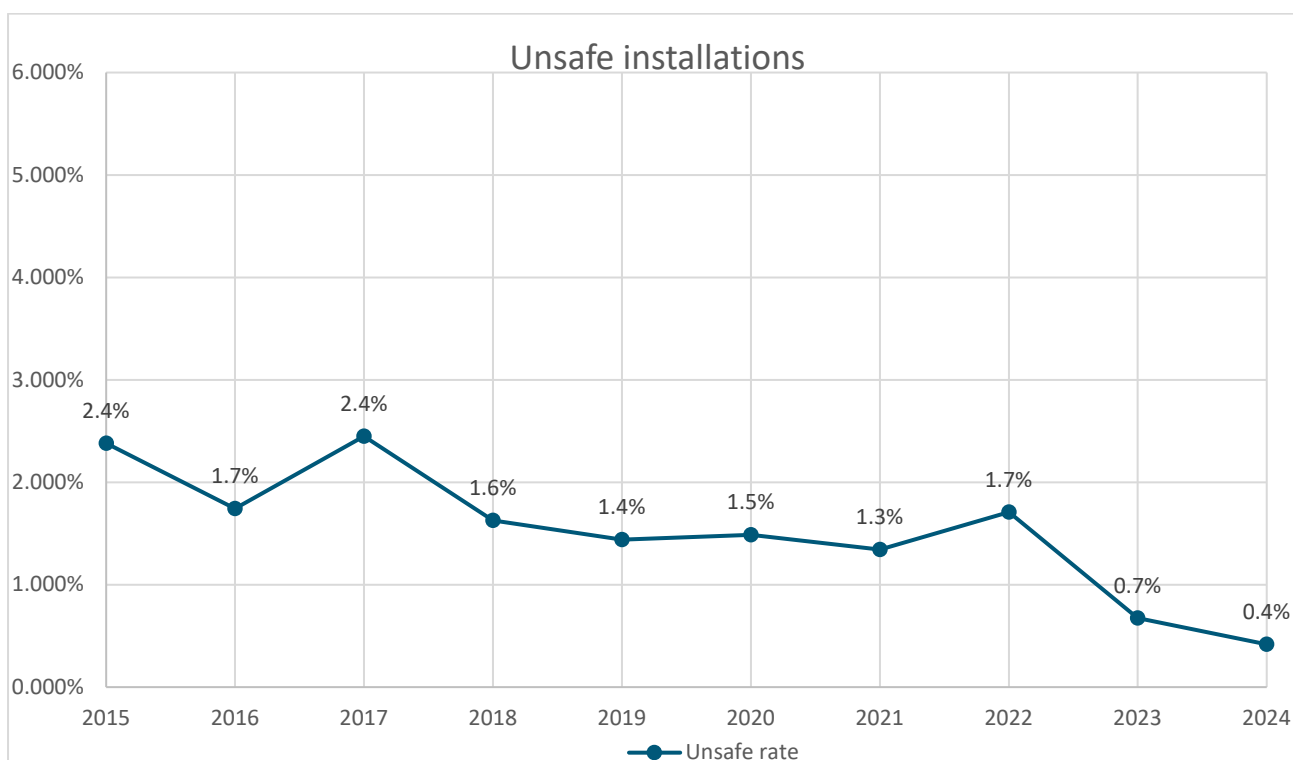
For the 2024–25 inspections program, the following systems were rated unsafe (Figure 5):

- 12 installations representing 0.8% of systems installed in 2023.
- 5 installations representing 0.4% of systems installed in 2024.

The following systems were rated unsafe due to product recall:

- 12 installations representing 0.8% of systems installed in 2023.
- 1 install representing 0.04% of systems installed in 2024.

Figure 5: Unsafe PV installations by year



In comparison to installations prior to 2023, unsafe rated installations caused by DC isolators have since dropped to nil. This was due a change in Australian standards AS/NZ 5033 providing an option of using disconnection points instead of rooftop DC isolators in most solar PV installations. This shows the sharp decline from 2022 of unsafe systems.

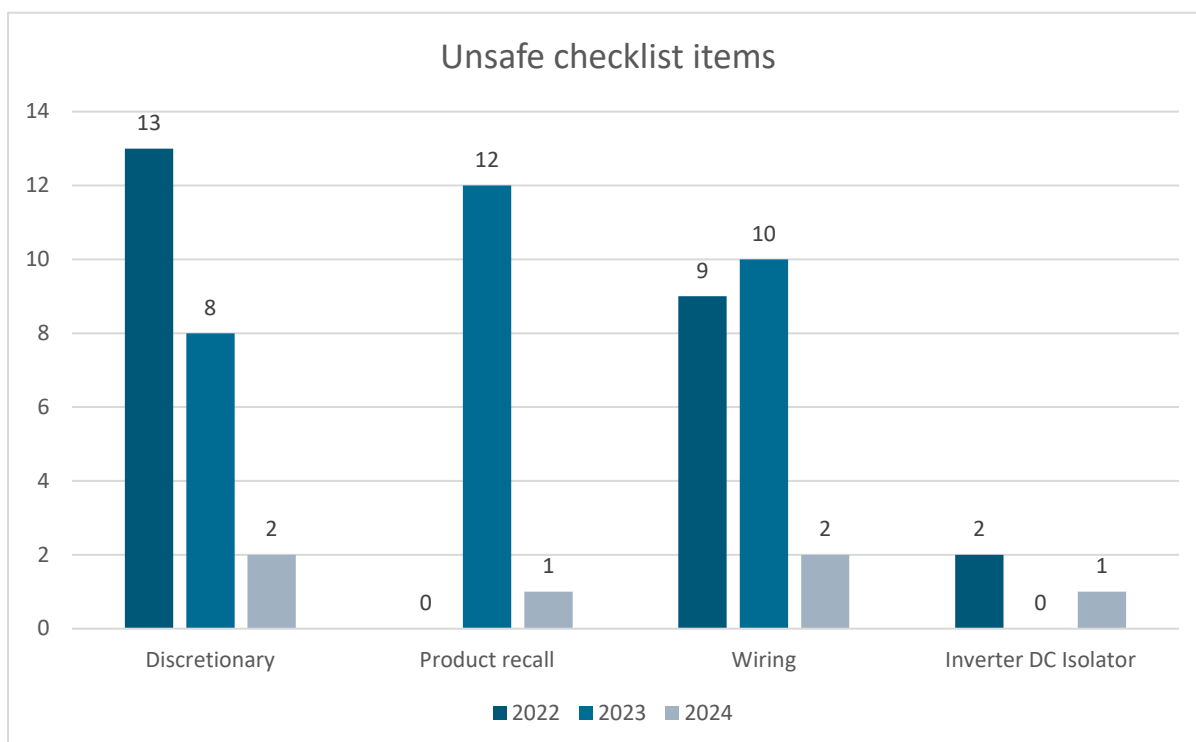
Common causes for unsafe installations

During the 2024–25 inspection program the most common issues leading to systems being rated unsafe include the following (Figure 6):

- inverter DC isolator
- wiring
- discretionary
- product recall.



Figure 6: Causes of unsafe solar PV systems installed during 2022–2024



Note: The total number of unsafe solar PV installations in Figure 6 may be greater than the unsafe totals because one or more non-compliance checklist items may be selected in an inspection to make a single system unsafe.

Unsafe due to product recall

In addition to the existing automatic and discretionary unsafe ratings, the CER has introduced a new 'unsafe due to product recall' rating category.

This rating ensures the inspection program can accurately capture and report systems that pose a risk due to recalled components, even if the system was originally installed in accordance with the standards at the time. This is important in cases where the manufacturer has identified a defect that could compromise consumer safety, and where the manufacturer, installer, retailer or system owner has not acted to remediate the affected component.

Over the 2024–25 inspections program, 13 systems have been identified and rated unsafe under this new category. This rating supports our commitment to maintaining high safety standards across the solar PV industry and provides a mechanism to track and respond to emerging risks associated with product recalls.

The product recalls during the 2024–25 inspections program period contained certain brands of solar inverters, which were found to be supplied with an alternating current plug that did not comply with relevant electrical safety standards. The plug could be removed without the use of a tool, potentially exposing consumers to live terminals.

When a system is identified as unsafe due to a product recall, the inspector follows the standard protocol for unsafe installations. This includes rendering the system safe and informing the homeowner or occupier of the issue and next steps. In these cases, the inspector advises the homeowner to contact the manufacturer and installation company to arrange for a qualified service person to rectify the recall related issue. Rectification involved installing a protective collar around the AC plug that required a tool for removal, preventing accidental disconnection.



More information about product recalls on solar PV components is available through the following websites:

- [Home | ACCC Product Safety](#)⁴
- [Product recalls | Clean Energy Council](#)⁵

Discretionary unsafe installations

During the 2024–25 inspection program, 4 systems were categorised as discretionary unsafe. In some cases, the unsafe rating was due to third party incidents, such as severe hailstorms or damage caused by golf balls at properties near golf courses.

To improve consistency, the CER worked with inspectors to update the solar PV inspection checklist for future inspection programs. This update helps inspectors select the most appropriate clauses to reflect the issues found.

Appropriate or necessary inspections results

As part of the 2024–25 inspection program, the CER conducted three smaller inspection tranches that were considered appropriate and necessary based on identified risk and compliance priorities. The following inspections were undertaken and checklist items selected (Figure 7).

Tranche 1

7 systems installed between July 2021 and May 2022 were inspected following concerns that STCs may have been improperly created. It was alleged that the listed installer may not have been present during the installations.

The CER's Compliance and Enforcement team conducted a thorough review of systems associated with this installer, selecting those considered to pose the highest potential risk. All 7 systems were found to be safe and compliant with the relevant standards at the time of installation.

Tranche 2

30 systems were inspected as part of CER's risk-based approach, tracking and monitoring outcomes amongst the installer cohort. Of the 30 systems, 27 were found to be compliant, while 3 were rated as substandard.

Tranche 3

17 systems installed between May and June 2025 were inspected as part of a proactive compliance approach. This tranche focused on installers who had previously received adverse inspection outcomes.

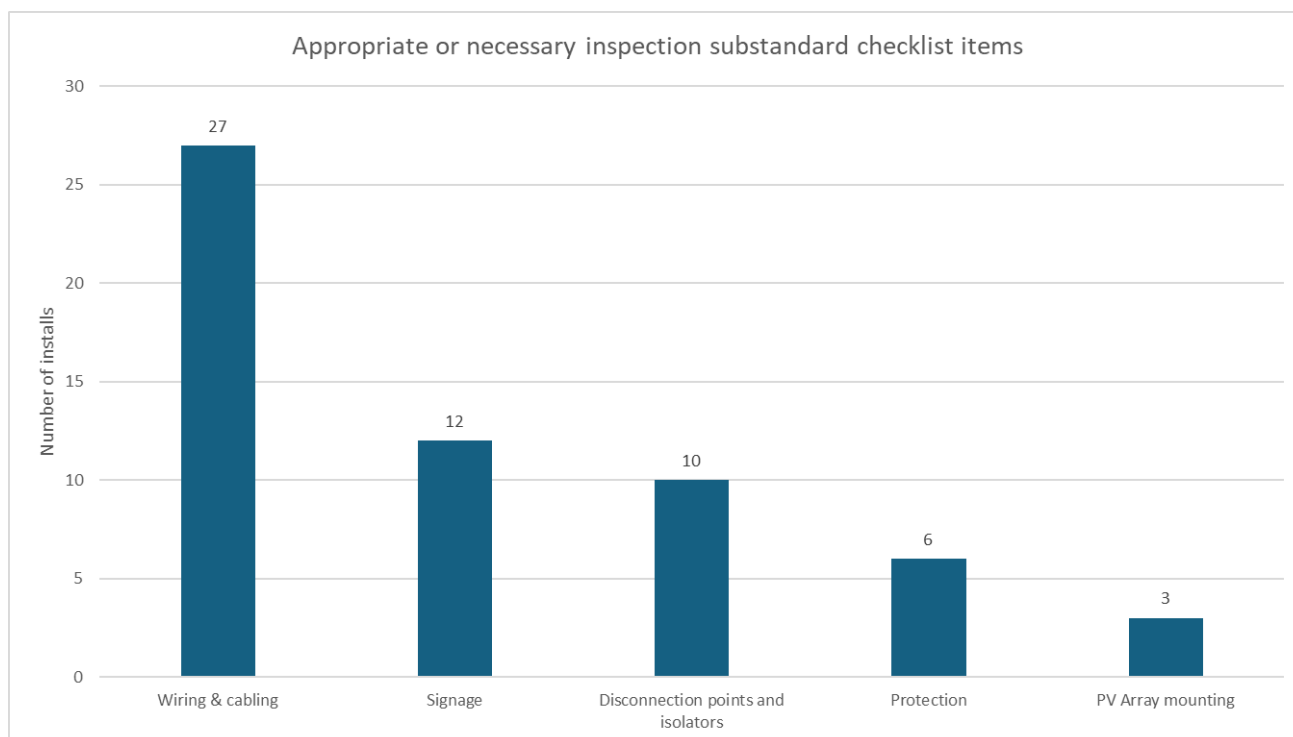
The inspections aimed to assess improvements made through education, retraining and adjustments to installations practices. This approach supports ongoing efforts to promote safe and compliant installations across the industry. Of the 17 inspections, 7 systems were rated substandard, while 1 system was rated unsafe.

⁴ <https://www.productsafety.gov.au/>

⁵ <https://cleanenergycouncil.org.au/industry-programs/products-program/product-recalls>



Figure 7: Reasons for substandard ratings for appropriate or necessary inspections



Note: The total number of substandard solar PV installations in Figure 6 may be greater than the substandard totals because one or more non-compliance checklist items may be selected in an inspection to make a single system substandard.

The unsafe system identified through the appropriate or necessary inspections was due to exposed live parts and wiring.

Further information

[Small-scale renewable energy system inspections](#)⁶

Previous inspection updates

- [Inspections update 2023–24: No. 23](#)⁷
- [Inspections update 2022–23: No. 22](#)⁸
- [Inspections update 2021–22: No. 21](#)⁹

⁶ <https://cer.gov.au/schemes/renewable-energy-target/small-scale-renewable-energy-scheme/small-scale-renewable-energy-systems/small-scale-renewable-energy-system-inspections>

⁷ <https://cer.gov.au/document/inspections-update-no-23>

⁸ <https://cer.gov.au/document/inspections-update-no-22>

⁹ <https://cer.gov.au/document/inspections-update-no-21>



Appendix A

Number of random sampled inspections, substandard installations and unsafe installations for states and territories over the life of the program up to 30 June 2025

	Number of inspections	Substandard installations	Unsafe installations
ACT	598	87	16
NSW	11,281	2,388	300
NT	251	52	7
QLD	12,129	2,646	332
SA	4,765	879	66
TAS	502	82	20
VIC	9,085	1,348	235
WA	6,308	1,261	156
Total	44,919	8,743	1,132