Australian Government
Clean Energy Regulator

RENEWABLE ENERGY TARGET

Inspections update No. 19

Introduction

This inspections update provides a summary (as at 30 June 2020) of the inspections program under Section 23AAA of the *Renewable Energy (Electricity) Act 2000* and Part 7 of the Renewable Energy (Electricity) Regulations 2001 as administered by the Clean Energy Regulator (the agency) since May 2011. This update is a continuation of a series of published inspections updates[1], available from the agency's website.

Inspection results

Table 1: Completed inspection reports received as at 30 June 2020 (over the life of the program)

State	Systems inspected	Unsafe systems	Substandard systems
ACT	329	12	38
NSW	6,855	222	1,199
NT	164	7	32
QLD	8,810	276	1,706
SA	3,522	57	642
TAS	396	20	69
VIC	6,075	214	882
WA	4,458	147	907
Total	30,609	955	5,475
Total Per cent	-	**3.1%**	**17.9%**

State and territory electrical safety regulators are responsible for electrical safety. As part of our role, we provide reports to state and territory electrical safety regulators and the Clean Energy Council (CEC), and we publish inspection results on our website.

We also share the results of the inspection program with peak industry bodies, electrical safety regulators, inspection service providers and industry more generally through our education and outreach activities. We have no direct powers to deal with electrical safety matters.

[1] http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/Agents-and-installers/Small-scale-Renewable-Energy-Scheme-inspections

To date, the evidence and trends from inspection program data have contributed to improvements in CEC installer training and guidelines, changes to the Australian standards and improved consistency of inspections.

Unsafe results

As at 30 June 2020, the number of solar photovoltaic (PV) systems assessed over the life of the program as unsafe totalled 955 (3.1 per cent) out of a total of 30,609 inspections.

The unsafe rating has been used since the inspections program began. The agency defines an unsafe solar PV system as one that has a safety hazard which poses an imminent risk to a person or property. However, the majority of PV systems found to be unsafe did not pose an imminent safety risk. Most were due to water ingress in direct current (DC) isolators. Of these, the degree of water ingress varies and in most cases the DC isolator will likely become unsafe without timely maintenance but does not pose an imminent risk. These systems may be classified as potentially unsafe at the time of inspections. A small number of inspections where the PV system did pose an imminent safety risk at the time of inspection were due to exposed live parts or unsecure PV panels.

There has been an overall downward trend in the level of unsafe and potentially unsafe systems installed each year since the inspection program started. This trend can be seen in recent years in the program average unsafe rate. This is likely a result of the CEC strengthening guidelines, including the requirement for a shroud over the top of DC isolators, as well as ongoing associated actions to improve installer training.

Actions taken as a result of the systems being classified as unsafe:

- The system was shut down or otherwise rendered safe by the inspector
- The owner and/or occupier of the premises were advised by the inspector of the nature and extent of the safety risk, and
- The relevant state or territory electrical regulatory authorities, the CEC and energy network provider were advised by the inspector of the nature and extent of the safety risk.

Substandard results

As at 30 June 2019, the number of solar PV systems inspected and assessed as substandard over the life of the program totalled 5,475 (17.9 per cent). A substandard rating does not mean the whole system is substandard. Typically, such a rating is because one or two defects are found in the installation that do not affect performance. Defects may include equipment or installation non-compliance with relevant standards and industry guidelines.

A substandard system is defined as one that:

- does not meet key clauses in the standards and requirements for installation and may lead to premature equipment failure or other issues
- does not pose an imminent safety risk, or
- the installation work and/or the equipment should be improved to meet relevant standards and industry guidelines.

A system that is assessed as substandard requires work to rectify the installation.

Actions as a result of substandard classification and requiring rectification work:

- The owner and/or occupier of the premises were advised by the inspector of the nature and extent of the risk posed by the substandard issues, and

- The relevant state or territory electrical regulatory authorities and the Clean Energy Council were advised of the nature and extent of the risk posed by the substandard issues.

Figure 1: Summary data of inspection updates one to nineteen