



Inspections update No.1

INTRODUCTION

The Office of the Renewable Energy Regulator (ORER) has established an inspection program for small generation units (mostly PV installations) under Section 23 AAA of the *Renewable Energy (Electricity) Act 2000* (the Act) and Part 7 of the *Renewable Energy (Electricity) Regulations 2001* (the Regulations). The inspections program was established to ensure that selected installations meet the legislated requirements for the creation of STCs. These include:

- applicable Australian standards and industry guidelines as in force at the time the unit was installed.
- state/territory and local government requirements.

The inspections assist:

- ORER in identifying systems that have certificates improperly created against them
- state and territory regulatory bodies responsible for electrical and building safety in identifying systems that do not meet state/territory and local Government requirements
- the Clean Energy Council in identifying systems that breach the Clean Energy Council Solar PV accreditation guidelines.

The Regulator has appointed 41 inspectors, engaged through three inspection companies, to conduct inspections under section 23 AAA. The installations for inspection are randomly selected and include sites in each state and territory. It is necessary for ORER to select installations at random, at least initially, to develop intelligence to better target non-compliant installations in the longer term. The ORER does not conduct inspections on request.

This inspections update provides a summary of the inspection reports received by ORER as of 23 September 2011. The inspections update is not a summary of the total inspections completed by 23 September 2011. The first round of inspections is due to be completed on the 30 September 2011. A final report summary of the first inspection round will be available on the ORER website by the end of 2011.

LEGISLATIVE CONTEXT

Under Regulation 32, the Regulator must, for each year, publish on the Regulator's website the number of inspections conducted under Part 7 during the year. The Regulator may also publish any other general information about inspections that the Regulator considers appropriate.

ROLES AND RESPONSIBILITIES

ORER can only inspect systems according to the requirements of the Act and Regulations. ORER is responsible for:

- Ensuring each year a statistically significant selection of small generation units that are installed in that year are inspected;
- Appointing inspectors according to *Regulation 33*;
- Providing a copy of the final inspection reports to specified persons under *Regulations 45, 46 and 47*, including the owner, occupier, agent, system designer/installer, the Clean Energy Council and the relevant state or territory Regulator responsible for electrical and building safety. Note that the Regulations define





the primary content of the inspection reports. The Renewable Energy Regulator can also require additional information to be inserted in the report; and

- Taking appropriate compliance and enforcement action if certificates were improperly created against the systems.

The appointed inspector is responsible for:

- Conducting an inspection in order to determine if the requirements of regulation 39 have been satisfied;
- Obtaining informed consent from the owner of the system and occupier of the premises prior to conducting an inspection;
- Dealing with imminent safety risks, including immediate notification of all interested parties of the extent and nature of the safety risk including the relevant state or territory Regulator for electrical and building safety, the occupier, the Renewable Energy Regulator and relevant distribution networks.;
- Preparing a written inspection report;
- Providing to the person who created the certificates and the installer a reasonable opportunity to comment on findings the draft report if the report lists items for improvement;
- Providing recommendations as to the steps that should be taken to rectify any problems discovered during the inspection and, in particular, how to ensure that any safety or operational problems discovered can be rectified; and
- Providing the final inspection report to the Office of the Renewable Energy Regulator.

State and territory governments are responsible for:

- Regulation of safety standards for electrical work and matters relating to the design and construction of buildings and structures;
- Regulation of consumer protection in their states.

WORKING WITH STATE AND TERRITORY REGULATORS

ORER is establishing bilateral arrangements with state and territory regulators to enable the exchange of inspection results, as required under Regulation 46. ORER is continuing to work with its inspectors and the state/territory safety authorities to ensure there is a consistent interpretation of the Australian Standards and other requirements and that the correct risk ratings are assigned and the appropriate action taken in situations where the Standards and/or other requirements are not met.

The Regulator and relevant state/territory safety authorities responsible for electrical and building safety are notified at the time of the inspection by the inspectors about systems which are found as unsafe or substandard.

State and territory governments are responsible for the regulation of safety standards for electrical work, for matters relating to the design and construction of buildings and structures and regulating consumer protection in their states.





WORKING WITH INSTALLERS AND AGENTS ON ISSUES OF NON-COMPLIANCE

ORER's compliance and enforcement framework, policies, procedures and practices are in line with the requirements of the Australian Government Investigative Standards (AGIS) which will enable ORER to escalate any matter to an enforcement approach should parties not voluntarily comply with the requirements and spirit of the Act.

If ORER identifies issues of non-compliance that results in certificates being improperly created the designer, installer and the person who created the certificates, are provided the opportunity to comment on the inspector's findings and these replies will be considered by the Regulator before taking any further action, which may include to recovery of ineligible Small-scale Technology Certificates (STCs).

The Regulator may declare a person ineligible to design and install SGUs for a period of up to 12 months if that person is subject to an adverse finding in an inspection report on 3 separate occasions.

ESTABLISHMENT OF THE INSPECTIONS PROGRAM

Following the development of an inspection checklist and negotiating supply contracts, ORER commenced the program in mid May 2011, inspecting small generation units (SGUs) (mainly solar photovoltaic (PV) systems) installed between 1 July 2010 and 31 December 2010.

ORER has engaged three service providers, Global Sustainable Energy Solutions, ECA Safety Connect and the Australian Solar Energy Society, to inspect eligible PV installations in New South Wales, Victoria, Queensland, Western Australia, South Australia, the Northern Territory and Tasmania.

The service providers are using an inspection checklist that was developed by the ORER in consultation with technical and industry experts. The checklist covers all matters required to be inspected by the *Renewable Energy (Electricity) Regulations 2001*.

INTERIM SUMMARY RESULTS (AS OF 23 SEPTEMBER 2011)

Tally of inspections and reports

Number of inspection reports received by ORER as at 23 September 2011: 387

Number of inspections in progress as at 23 September 2011: ~1200

Number of inspections to be completed by end of the first inspection round (30 September 2011): 1600

Number of inspections to be conducted by the end of 2011: 2500





Inspection Results

As of 23 September 2011, the Regulator has been advised of the following:

- 96 per cent (or 373) of the PV systems inspected did not contain an imminent safety risk to person or property as defined in the ORER's inspection checklist.

Unsafe systems

- **4 per cent (or 14 inspections) of the PV systems were identified as unsafe.**
 - Unsafe systems are defined as:
 - A possible safety hazard which poses an imminent risk of damage to property or persons.
 - Of the 4% of unsafe PV systems:
 - Seven had incorrectly installed DC isolator enclosures, allowing water ingress.
 - Seven had installed equipment that had exposed live parts

Actions taken as a result of the systems being classified as imminent safety risk

- The system has been shutdown or otherwise rendered safe by the inspector.
- The owner and occupier of the premises have been advised by the inspector of the nature and extent of the safety risk.
- The relevant state or territory regulation authority has been advised by the inspector of the nature and extent of the safety risk.
- The installer of the system and the agent who created the certificates has been contacted by the inspector and asked to provide comment. These comments may include advice on how the identified safety risks/non-compliances will be rectified, or on the steps taken to ensure the accuracy of information relied on to create certificates.
- Any comments provided have been taken into account before finalising the inspection report and providing it to ORER.

Substandard systems (Rectification work required)

- **21 per cent (or 81 inspections) of PV systems were identified as substandard and requiring rectification work**
 - Substandard is defined as:
 - System does not meet key clauses in the standards and requirements for installation and may lead to premature equipment failure or other issues.
 - The system does not pose an imminent safety risk.





- The installation work and or equipment should be improved.
- Of the 21% of substandard PV systems:
 - Approximately two thirds had DC isolators that were under-rated for the voltage output of the system.
 - Approximately one third had polarised DC isolators that were incorrectly wired or not rated for direct current
 - A very small proportion had workmanship issues relating to wiring or brackets.

Actions taken as a result of the systems being classified as sub standard and requiring rectification work

- The owner and occupier of the premises have been advised by the inspector of the nature and extent of the risk posed by the substandard issues.
- The relevant state or territory regulation authority has been advised by the inspector of the nature and extent of the risk posed by the substandard issues.
- The installer of the system and the agent who created the certificates has been contacted by the inspector and asked to provide comment. These comments may include advice on how the identified issues will be rectified, or on the steps taken to ensure the accuracy of information relied on to create certificates.
- Any comments provided have been taken into account before finalising the inspection report and providing it to ORER.

Table 1. Completed Inspection Reports received as at 23 September 2011

State	Systems inspected from May 2011	No. of Systems Unsafe	No. of Systems Substandard
NSW	177	10	3
QLD	52	0	17
VIC	141	4	59
WA	17	0	2
Total no.	387	14	81
Total %		4%	21%

