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# Electrical apprentice falls from roof during solar installation

**1 June 2022**

*A 22-year-old 4<sup>th</sup> year electrical apprentice sustained serious injuries when he fell approximately four metres from a rooftop. The apprentice was installing solar roof panels on a house under construction.*



*Front and side view of incident site*

## Safety information

In NSW, there are more than half a million young workers (aged up to 25) and more than 15,000 of them are injured at work each year. Regardless of how they are employed, or in which industry, young workers need extra support to ensure they are carrying out their tasks correctly and safely.

Solar panels are becoming increasingly popular in NSW, however, there are significant falls from heights risks to workers when installing these systems including:

- falls over unprotected roof edges
- falls through uncovered penetrations and voids
- falls through skylights, alsynite, fibre cement and other weak materials
- falls through damaged, brittle, weakened or otherwise non-supporting roof surfaces
- slips and trips on pitched/sloping roof surfaces
- slippery surfaces due to algae, moss, moisture, dirt etc.
- falls during access (both people and equipment) e.g. ladders.

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The information contained in this publication is based on knowledge and understanding at the time of writing and the findings are not yet confirmed. SafeWork NSW has commenced an investigation in response to the incident to determine its cause and circumstances. No conclusions should be drawn from the information in this publication about the cause of the incident or the culpability of any party.

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Consider 'reasonably practicable' control measures to manage the risks associated with solar panel installations.

## You must ensure:

- a site-specific safe work method statement (SWMS) is prepared where the risk of falls is two metres or more
- the SWMS is prepared in consultation with workers – make sure they follow it
- the correct safety equipment is in place before work commences
- the hazards, risks and suitable controls are identified before accessing the roof
- workers have a safe means of access and egress to work areas
- falls are controlled using a fall prevention device, such as covers, temporary edge protection (guardrails) and scaffolding
- a harness-based system is only to be used when higher order controls are not reasonably practicable
- ladders are placed at a ratio of 1:4 to the wall, secured at the top and bottom, and extended at least one metre above the roof edge – consider using an elevating work platform or scaffolding instead of a ladder
- adequate training and instruction in the correct use of the equipment is provided to all workers.
- adequate supervision and assistance is provided to less experienced workers.

## Related information

- [Solar panel photovoltaic \(PV\) installations - SafeWork NSW](#)
- [Solar safety video safety alert - SafeWork NSW](#)
- [Guide to safe solar panel installation - Safe Work NSW](#)
- [Managing the risk of falls in housing construction - SafeWork NSW](#)
- [Young workers eToolkit - SafeWork NSW](#)
- [Traumatic event management plan - SafeWork NSW](#)
- [Mental health at work - NSW Government](#)

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