

## Workplace Health and Safety Queensland

## Working on roofs and in ceiling spaces

Installing cabling and entering ceiling spaces, for work such as installation of solar panels or aerials on roofs, can pose serious risks to workers.

Business operators, managers and workers should work together to put in place health and safety measures and ensure appropriate staff training is conducted to minimise the risk of serious injuries or possible fatalities when:

- performing [work at heights](#), or
- working in ceiling spaces of homes and other buildings.

### The risks

Working at heights and near electricity present major risks to workers who work on roofs and in ceiling spaces.

### Managing the risks

#### Electricity

Electricity is a significant hazard. Before starting any work, turn off all electricity to the property at the main switchboard and take steps to prevent the electricity from being turned back on while work is in progress.

Where solar photo voltaic (PV) systems are installed, supply cables from the solar cells on the roof to the inverter unit will be live when the solar cells are generating electricity. For this reason, care must be taken when working around these cables.

Care must also be taken when working on roofs or in ceiling spaces to minimise or avoid contact with exposed conductive parts such as guttering, roof

sheeting or metal battens as these could be live if there is a fault with the electrical wiring.

**Please note:** Turning off electricity to the property at the main switchboard does not turn off the electricity supply from the street to the switchboard. This means the incoming overhead service lines and the cables supplying the switchboard will still be live.

Extreme care must be taken to avoid touching any of these live overhead electrical lines or supply cables.

**Exclusion zones exist for working near incoming service lines and need to be maintained at all times (generally 3 metres).** For further details on exclusion zones, refer to Appendix B of the [Electrical Safety Code of Practice 2010 -Working Near Exposed Live Parts](#).

Visit [www.electricalsafety.qld.gov.au](http://www.electricalsafety.qld.gov.au) for further information on electrical safety.

#### Working at heights

When working at heights (over two metres), you should have systems in place to prevent a person falling. If this is not possible, then you need to consider the type of activity being carried out to establish the degree of risk and any control measures that may be used to manage the risk, ensuring the worker is not injured including:

- edge protection systems around elevated work areas
- travel restraint systems.

Ladders should only be used to access the roof or ceiling and should not be used as a work platform for long periods of time. There are a number of factors that should be considered when using ladders and consideration given to an alternative if a work platform is needed to complete your work.

Further information and specifications, and additional control measures can be found at [www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au) under [work at heights](#) and [ladders, trestles and scaffolding](#).

### **Prior to entering the ceiling space**

Before entering the ceiling space, turn the electricity off. Once all electricity has been turned off, complete a pre-work risk assessment of the roof cavity by looking around the ceiling space to identify hazards that may pose risks. These may include:

- high temperatures
- evidence of vermin
- sharp objects
- asbestos
- type of lighting
- type of insulation material
- accessibility to the work area (e.g. cramped and awkward positions)
- location of electrical wiring and water or gas piping.

### **Carrying out work in ceiling spaces**

Considerations to be made when carrying out work in ceiling spaces include:

- ensuring someone is aware of where you are and contact with them is maintained until work is completed
- being aware that heat and humidity may cause heat stress, so make sure fluid intake is sufficient to ensure you do not become dehydrated
- taking additional lighting (e.g. torch) with you as the lighting is generally poor in ceiling spaces
- taking care accessing and traversing the work area, avoiding tripping over debris, material and the ceiling trusses
- step carefully on ceiling joists or other beams — not the ceiling material (i.e. Gyprock sheeting) — to avoid risk of falling or injury
- using/providing appropriate tools— preferably manual or battery operated tools
- being aware of the location of electrical cables, fittings and equipment and avoiding contact with them

- ensuring that, if fixing points are required (e.g. saddling TV aerial cable in place), fixings are well clear of all electrical cables and equipment
- making sure you do not damage any electrical cables or electrical equipment. Please note: if any electrical cable or equipment is damaged, consult with the owner and engage a licensed electrical contractor to inspect the installation.
- wearing appropriate, well maintained and correctly-fitted personal protective equipment when working in dusty ceiling spaces, including:
  - a half-face (class P1 or P2) disposable particulate respirator, in accordance with AS/NZS 1715
  - a head-covering and goggles, to avoid eye irritation
  - long-sleeved, loose-fitting clothing and gloves, to minimise skin contact with insulation material.
- wearing appropriate footwear
- keeping your work areas clean and clear of fibres and dust and place waste in plastic bags capable of containing the dust.

### **Completion of work in the ceiling space**

Once work has been completed:

- replace any insulation material that may have been disturbed or moved for access to the work area, ensuring that it is not covering any electrical fittings or equipment, especially downlights
- dispose of debris and waste appropriately
- wash your hands, face, neck and hair, with soap and water.

## **References**

- [Work at heights](#)
- [Ladders, trestles and scaffolding](#)
- [Safety plans and work method statements](#)
- [Heat stress](#)
- [Personal protective equipment](#)
- [Managing risk](#)
- [Risk Management Code of Practice 2007](#)
- [Electrical Safety Code of Practice 2010 - Risk Management](#)
- [Electrical Safety Code of Practice 2010 – Working Near Exposed Live Parts](#)
- [Manual Task Code of Practice 2007](#)
- [Workplace Health and Safety Regulation 2008](#)
- [Electrical Safety Regulation 2002.](#)

## For further information

- visit [www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au) for workplace health and safety or call Workplace Health and Safety Infoline on 1300 369 915
- visit [www.electricalsafety.qld.gov.au](http://www.electricalsafety.qld.gov.au) for electrical safety or call the Electrical Safety Infoline on 1300 650 662.

© The State of Queensland (Department of Justice and Attorney-General) 2011

Copyright protects this document. The State of Queensland has no objection to this material being reproduced, but asserts its right to be recognised as author of the original material and the right to have the material unaltered.

The material presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations, or warranties about the accuracy or completeness of the information contained in this publication, and the reader should not rely on it. The Queensland Government disclaims all responsibility and all liability (including, without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason.