

# Overhead

The word **MUST** means it is a mandatory requirement. Where you see the words **YOUR CALL** it means you are strongly advised to do this, but you can use your judgement.



## Identification of overhead services

All overhead services at or near the work location **MUST** be identified prior to any work commencing.

Where work needs to be undertaken near live overhead electric lines or services, the safest option is to eliminate the risk of electric shock by having the electricity supply isolated prior to work starting.

All asset owners **MUST** be consulted prior to any isolation or de-energisation of service.

When the isolation of the overhead service is not possible, the work party **MUST** apply a minimum approach distance (MAD)\*

The aim of the MAD rules is to keep a person's body, their tools, and equipment a safe distance from the overhead line.

Remember, electricity can 'jump' to nearby conductors and that may include you!

\* MADs are specified by law and are described in detail in the [New Zealand Electrical Code of Practice for Electrical Safe Distances](#)

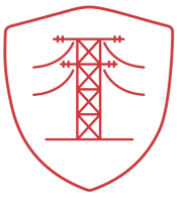
## Notifications

Asset owners **MUST** be consulted when work is being undertaken within the minimum approach distance (MAD) of overhead services.

A Close Approach Consent **MUST** be obtained if within the distances below.

- Cables, Gas transmission or high-pressure pipelines: 2 metres or more
- Overhead powerlines: 4 metres or more
- Pole or support stays: 5 metres or more
- Transmission tower: 12 metres or more

Only trained and competent personnel are permitted to work within the minimum approach distance.



## Essential guide: our Critical Risk expectations

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## Mobile plant near conductors operation

Mobile plant working near overhead electrical lines can damage the line and be hazardous for the plant operator, the mobile plant and people in the vicinity.

The distance between any live overhead electric line and any mobile plant or load **MUST** be at least 4 metres.

Mobile plant **MUST** not be operated or carry any load above the conductors of any overhead electric line. Where this is a requirement, written consent from the asset owner **MUST** be obtained.



## Aerial drones

When operating a drone, you **MUST** be a minimum of 12 metres away from any lines at all times.

If you are operating an aerial drone that has accidentally come into contact with a power line, tower, substation, or other electrical site, do not attempt to retrieve the vehicle.

## Controls that may be implemented

When in close proximity of services, Minimum Approach Distances (MADs) **MUST** be applied. Only trained and competent personnel are to work in close proximity or within MADs.

Consider plant or machinery that can't practically reach conductors or has been fitted with slowing or limiting devices.

Spotters **MUST** be used when working in close proximity or within MADs and **MUST** have a clear line of sight of services. Spotters and plant operators **MUST** use RT's where possible to ensure clear communication.

Hand signals **MUST** be understood by the spotter and the plant operator.

Consider obtaining As Built drawings or have all heights surveyed prior to any work.

Hazard boards, flags, bunting, barriers, and signage **MUST** be in place.

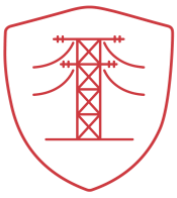
Appropriate procedures such as SOP/JSEA **MUST** be developed and used when working around overhead services.

The work party **MUST** be informed of any hazards and restrictions prior to the start of any work.

Designated loading/unloading areas **MUST** be clear of services.

You **MUST** undertake daily checks to ensure insulation, enclosures, barriers, and tags are in place.

Ask yourself has anything changed?



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## Protection of overhead services

All essential overhead services **MUST** be protected from damage while work is being undertaken.

Where there is a risk of a collision with mobile plant, services on the ground **MUST** be physically protected through the use of:

- enclosures
- cable trays
- bollards.

Services on the ground **MUST** have visual identifiers to alert workers of their location.

- tapes
- locations marked on walls
- accurate temporary or as built plans.

Exclusion zones **MUST** be established when temporary protection is required.

## Isolation of services

Where possible, essential services **MUST** be isolated prior to undertaking work that is in close proximity to those services. This includes all overhead essential services that may be impacted by the work.

All asset owners **MUST** be consulted prior to any isolation or de-energisation of service.