Working safely near powerlines

Working near powerlines can be fatal. Touching them or straying into the exclusion zone around them can result in a serious electric shock.
If you must work near powerlines, you should follow these steps:

1. **Develop a safe system of work before you start**
   - Develop a safe system that ensures a safe distance from powerlines is maintained (stay outside the exclusion zone).
   - Identify overhead and underground powerlines by consulting maps and/or talking to the property owner and electrical entity.
   - Conduct a site specific risk assessment – think about:
     - the type of plant and equipment/tools used
     - site and weather conditions
     - type of work being done
     - set-up and pack-up procedures.
   - Put risk controls in place – the most effective way of controlling the risk is to de-energise the line for the duration of work where there is a risk of contact.

2. **Keep your workers and contractors informed about electrical safety**
   - Induct and train your workers and contractors in safe work procedures, emergency procedures, and exclusion zones (Figure 1).
   - Carefully plan the tasks to be completed near powerlines and work away from them whenever possible.
   - Show your workers the safe distance from an exclusion zone a powerline by marking it on the ground.
   - Ensure people are aware that powerlines sag or sway in hot or windy weather (Figure 2).

3. **Stay outside exclusion zones**
   - Make powerlines and poles visible. Ask your electricity entity for permission to paint power poles and/or have them install markers or flags on the powerlines.
   - When tree cutting plan your work so tree branches do not fall across powerlines.
   - Where possible, use insulated or non-conductive tools and equipment.
   - Operators should use a safety observer when carrying out work near powerlines.
   - Follow the safety advice you obtain from your electricity entity.

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**Figure 1.**

Exclusion zone for unauthorised people

Up to and including 330 kV

Up to 132 kV

**Figure 2.**

Sag (vertical drop)

Sway (horizontal movement)