

What should I do before starting work?

- Complete a risk assessment so as to identify and put in place the appropriate control measures to prevent any hazards (including work practices and procedures) which may have the potential to harm the health or safety of a person. This should be completed for each paddock and piece of machinery to be used
- Know the location of underground powerlines and their proximity to your work site before commencing digging – obtain accurate, up-to-date maps/diagrams showing the location of powerlines on the property from Essential Energy
- Check gutters and metal roofs prior to commencing a job, as they can become live due to deteriorating insulation on electrical wiring
- Use a safety switch to reduce the risk of shock from portable tools
- Enquire with the occupant if they have experienced any minor electrical shocks from taps, sink etc
- Visually check the connections of the electrical services at both ends, pole and house are present with no arcs or sparks
- If accessible check the condition of earth connection at earth stake and hot water system bond
- Test water pipes with a self-testing voltage indicator for stray voltage
- It is strongly recommended that a powerpoint safety tester be purchased and used to check the customer's powerpoint before connecting equipment. These simple devices can be purchased from most electrical wholesalers
- If the earth wire needs to be moved, disconnected or shows signs of being damaged or where any existing metallic pipe is to be replaced in part or in its entirety by plastic pipe or other non-metallic fittings or couplings, the work must not commence until the earthing requirements have been checked by an electrical contractor and modified if necessary
- If isolation of electricity supply is required contact Essential Energy on **13 23 91**
- Contact Essential Energy power outages line on **13 20 80** if a fault is apparent.



Detection of stray voltage

Electrical bridging cable requirements

- Visually check the bridging conductors for any damage before use, every time
- Ensure bridging conductors have a current rating of not less than 70 amps
- Ensure strong clamps are fitted to each end of the electrical bridging conductor



Bridging out of water meter

- Bridging must not be broken or removed until all work on the water service is completed and continuity of the metallic service pipe is restored
- Removal of bridging conductor during work may result in a serious or fatal electric shock.

Primary control measures when changing water meter

- Inform the customer and isolate electrical supply if practicable
- Locate main switch/s, there can be more than one main switch and turn off, attaching a "Do not operate" tag or lock the switchboard until work is completed. Remember this may not isolate all stray voltage
- Ensure PPE is used, especially insulated electrical gloves (minimum 500 volts – ensure they are checked for damage such as holes, every time prior to use)
- Thoroughly clean a section of metallic pipe each side of the work area (e.g. meter) and ensure bridging cables have good physical contact with the metal pipes
- Bridging must not be broken or removed until all work on the water service is completed and continuity of the metallic service pipe is restored.



Safe work habits

- To prevent electric shock, use a bridging conductor when cutting out any section of water pipe
- Exercise extreme caution when working near the point of attachment of electrical supply lines to the house
- Look out for electrical arcs or tingles – if identified do not commence work and contact Essential Energy on **13 20 80**.

What else can I do to make my worksite 'power safe'

- Find out about any work areas which may be hazardous, electricity, gas, water etc
- Know the location of overhead and underground powerlines and their proximity to your work site before commencing work (digging or climbing)
- If required, arrange for isolation of electricity supply or the application of insulating matting onto service and point of attachment by Essential Energy
- If power lines are near the worksite, install appropriate signage (see Essential Energy's fact sheet 'Increase visibility of powerlines' for more information)
- Look for obvious signs of underground services such as conduits, pipes, warning tape, bricks or equipment
- Test gutters and metal rooves prior to commencing a job, as they can become live due to deteriorating insulation on electrical wiring
- Ensure extra care is taken when handling roofing materials, especially when windy or at heights.



Insulated matting and tiger tail fitted to overhead service line

Determine whether there are any new hazards

- Have the implemented control measures resulted in the introduction of any new hazards or in the worsening of any existing hazards?
- Have the changes made to control exposure to the assessed risk(s) resulted in what was intended?
- Has exposure to the assessed risk(s) been eliminated or adequately reduced?

For more information

Essential Energy's Public Safety team is available to facilitate Electrical Awareness sessions and discuss any questions relating to electrical safety.

For more information on electrical safety please call Essential Energy:

General enquiries **13 23 91**

Power outages **13 20 80**

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or visit essentialenergy.com.au/safety

Essential Energy recommends you familiarise yourself with the latest SafeWork NSW Code of Practice 'Work near Overhead Powerlines', which can be viewed at www.safework.nsw.gov.au or you can purchase a copy of the Code of Practice by contacting SafeWork NSW on **13 10 50**.

SAFETY FIRST:

- Know the location of overhead and underground powerlines near the worksite
- Ensure safe clearances are maintained (see Essential Energy's fact sheet 'Work near overhead powerlines' for more information)
- Always use a safety switch (RCD)
- Ensure PPE is used and in working condition
- Test for stray voltage using a self-testing voltage indicator
- Always bridge pipes that might carry current
- Leave bridging in place until work is finished
- If any electrical fault is suspected immediately notify the consumer and Essential Energy on **13 20 80**.