

# SAFETY ALERT

## Customer Backfeed into Isolated LV Worksite



THREAT/EVENT:  
**SHOCK AND FIRE**

CONSEQUENCE:  
HARM TO PERSON  
OR PROPERTY

SC#1 Working on or Around Electricity (ID 114)



### What happened?

- During a planned LV power outage on 27/06/2025, one of the Cable Jointers noticed sparking when white phase of the LV network cable being worked on touched an adjacent wire mesh fence.
- The work was being done under a MainPower issued LV Permit. The network cable was isolated from the network and tagged. At the work location, the cables were proved de-energised prior to commencing work.
- The Cable Jointer was wearing insulating gloves in accordance with MainPower's PPE Standard.
- The Cable Jointer retested the network cable and identified white phase to be live at 232 volts, and then notified the Control Room.
- There was no harm to persons or damage to property.

### Why did it happen?

- A customer had relivened their installation via a 3 kW single-phase portable generator and makeshift extension lead with male-to-male plugs. This back-fed the isolated LV network cable that the Cable Jointers were working on, creating an electrically unsafe situation.



Image 1 – Incident location (white phase touched wire fence)



Image 2 – Customer connected 3 kW portable generator (source of backfeed)

### What you need to know

- The risk of unknown supplies, and LV backfeeds from other sources of supply, exists on UG and OH systems within Installations and Electricity Networks.
- Backfeeds can occur from a number of sources, e.g. more than one transformer supply, solar systems, battery/inverter systems, generators, or electrical defect in neighbouring installation.
- This incident highlights the importance on wearing insulating gloves in accordance with MainPower's PPE standard.
- Wearing insulating gloves is the last line of defence for personal protection against the risk of electric shock from voltage differences.

### What are we doing about it?

- Notified Worksafe of this incident.
- Conducting a full investigation into this incident.
- Continuing LV Bonding training for LV ground-mounted equipment for additional risk mitigation and SM-EI safety rules compliance.
- Awareness communication to employees and MainPower approved contractors.