



# SAFETY ALERT

Live Low Voltage work on underground mains and apparatus

Issued: 04 April 2017

| Number: 07-17

## What happened?

An Ausgrid worker received an electric shock while undertaking cable jointing of an energised cable in a cable pit.

The worker required medical treatment on site and was then transferred to hospital. He has since been released and returned home.

## What has been done?

Following this incident Ausgrid released a Safety Alert and suspended the jointing of Live Low Voltage underground cables. Endeavour Energy temporarily suspended all Live Low Voltage jointing, connection and disconnection of underground distribution mains cables in columns, pillars, and padmount substations, pending the outcome of a review.

Endeavour Energy conducted a risk review workshop on 29 March involving representatives from across the business. Existing work practices and equipment used for live low voltage work in underground situations were examined, and it was recommended that the temporary suspension of most Live Low Voltage work be lifted.

## What you need to do

Live Low Voltage connection and disconnection of underground distribution mains cables and apparatus in columns, pillars, and padmount substations, in accordance with the Electrical Safety Rules, **can recommence effective immediately**.

Live Low Voltage cable jointing is prohibited until further notice.

All workers are reminded that making a connection between a live conductor and any other conductor can create a hazard. When working on or near live Low Voltage apparatus, apply safe work practices to ensure your body does not become the path between conductors.

Live Low Voltage work practices include:

- Wearing low voltage insulating gloves and approved leather outer gloves on each hand in accordance with 6.9.5 of the Electrical Safety Rules;
- Securely applying temporary insulation to all live parts not being worked on and earthed metal within reach in accordance with 7.4.3 of the Electrical Safety Rules;
- Working on a single phase at a time;
- Using covered tools in good condition to prevent inadvertent contact with conductors at a different voltage;
- Roll down and fasten shirt sleeves, wear a helmet and eye protection; and
- Using a suitable mat to provide temporary insulation from earth potential, or wearing industrial footwear in good condition and remaining in standing position during work (not sitting or kneeling).

Safety Alert 06-17 “Energised Jointing of LV Mains Cables” is superseded by this Safety Alert.

## Who you should contact

Tony Baerwinkel, Electrical Safety Manager - 0400 483 365

## Procedures, WPIs or SWMS to adhere to

Endeavour Energy Electrical Safety Rules

GSY 1066 Worksite Hazard and Risk Assessment













Figure 1. Live Low Voltage work practices being applied during work on underground distribution mains at a pillar

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Owner: Tony Baerwinkel, Electrical Safety Manager  
Approver: John Curran, Manager Safety & Environmental Services  
Expiry Date: 12 months from date of issue

**WORK PRACTICE REVIEW**
**TOOLS AND EQUIPMENT UPDATE**

 Prepared by: **Work Practice Review Committee**

ITEM	STOCK CODE	UNIT OF ISSUE
<b>APPROVED LV INSULATING COVERS</b>	<b>Various</b>	<b>EACH</b>
1005170 – Sleeve electrical slip-on cable sleeve 110mm wide x 80mm  1075822 – Sleeve electrical slip-on cable sleeve 190mm wide x 245mm 	1028194 – Insulation blanket linesman 1800mm wide x 225mm  1562404 – Insulation blanket linesman 1200mm wide x 750mm drop 	<b>DESCRIPTION</b> LV Insulating Covers that have been approved for use on the Network.  <b>Features:</b> <ul style="list-style-type: none"> <li>• Electrically rated and marked</li> <li>• Most are dual coloured so as wear can easily be identified</li> <li>• Magnetic or stud tabs for ease of application</li> <li>• Different styles for different applications</li> </ul>
SS20431- Kit for streetlight columns  1558428 – Insulation mat kit – substation 	1550458 – Insulation blanket linesman (LV links etc) 600mm wide x 375mm drop  1550441 – Insulation blanket Crossarm 1200mm wide x 375mm 	<b>USE</b> <ul style="list-style-type: none"> <li>• Understand the additional loadings placed on the infrastructure such as the cover weight and wind loadings</li> <li>• Be aware of the impact a cover may have on the temperature of a component</li> <li>• Understand the thermal withstand capability of the cover with the increased temperature of the component</li> </ul>
1562396 – Fence cover insulated 	1558865 – Insulation blanket Polycarbonate 800mm x 600mm 	<b>MAINTENANCE</b> <ul style="list-style-type: none"> <li>• Most covers have dual colours so that wear can be easily seen – replace the cover if the opposite colour has come through</li> <li>• Covers are cleaned using suitable cleaning products that do not contain alcohol or acids or use soft soap and water</li> </ul>

Tools and equipment shown herein have been subject to electrical testing (where applicable), standards scrutiny, field testing, end user consultation, hazard and risk reviews, and management approval and must be available to employees through the Stores Catalogue.

Employees are only to use approved tools and equipment on the network.