



SAFETY ALERT

Reverse polarity following underground service repair

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What happened?

A crew was responding to a customer 'no supply' call in an underground area.

A fault on the underground service was identified at the base of the column, and new sections of conductor were joined on to the service to bypass the damage. Continuity testing was used to identify where each new conductor was to be connected, one at a time.

An incorrect connection was made, resulting in the service neutral being connected to an active link in the column. When a crew member went to conduct a polarity test at the customer's switchboard he noticed smoke and an arcing noise, and immediately called for his colleague to disconnect the service at the column.

The customer's installation suffered heat damage to earth conductors and bonds in the switchboard, cable duct, and roof space.

The customer's service neutral was not disconnected prior to commencing reconnection work.

What has been done?

The damage to the customer's installation was repaired by an electrical contractor the following day, and the installation safely re-energised.

An investigation has commenced by an internal ICAM team.

The crew involved have had their network authorisations for service connection work and live low voltage work suspended pending the outcome of the investigation.

What you need to do

All workers carrying out service disconnection and connection work are reminded that **incorrect connections and reverse polarities can create life threatening situations** and equipment damage.

All connections to the low voltage network must only be made after undertaking a documented testing process in accordance with AS4741 – Testing of connections to low voltage electricity networks. For Endeavour Energy workers this means complying with WSY0037.

Endeavour Energy employees are reminded that the company procedure requires the disconnection of the customer's neutral and phase conductors at the final connection point prior to commencing any connection work. This allows polarity and neutral integrity tests to be carried out and any connection errors identified **before** energising any part of the customer's installation. Where the final connection point is the customer's switchboard, this disconnection is achieved by removing all service fuses and disconnecting the incoming service neutral from the service neutral link.

Who you should contact

For details of the incident:

Tony Baerwinkel, Electrical Safety Manager on 0400 483 365

Procedures, WPIs or SWMS to adhere to

Endeavour Energy Electrical Safety Rules

WSY 0037 Polarity testing and phasing of low voltage mains, services, and apparatus

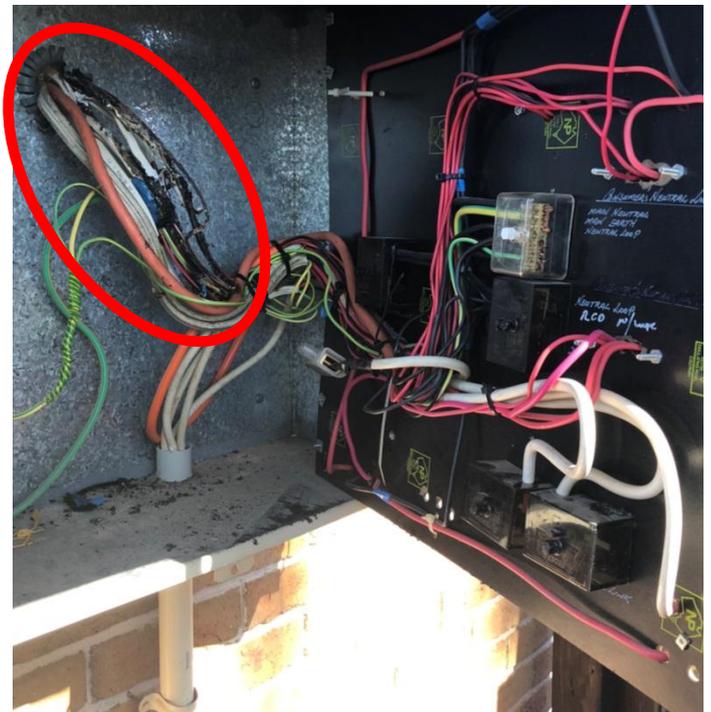


Figure 1. Damage to customer's switchboard caused by the reverse polarity connection