



Technical Bulletin

TB 0229 – Addition of protection sensitivity test to LV network design

Purpose

The purpose of this technical bulletin is to notify Endeavour Energy staff and ASP's of the changes to designing low voltage (LV) network, in particular the use of MDI 0030. The changes were made to align our practices with the industry guideline, ENA document 'Guidelines for design and maintenance of overhead distribution and transmission lines'.

Background

A review of LV protection was undertaken to assess the existing protection arrangements and identify adequacy and areas for improvement.

Actions

One of the recommendations of the review was that the relevant standards were to be updated to include a fuse/conductor calculator to make the selection of appropriately sized fuses and conductors less ambiguous.

This has been achieved by including a 'Fuse Sensitivity Test' to the Voltage Drop Calculator spreadsheet that is part of MDI 0030 which is used in LV network design.

Implementation

When designers use the new voltage drop calculation spreadsheet, they will check voltage drop is within acceptable limits as per previous practice and will now check fuse sensitivity is acceptable.

Should a section of network return an "unacceptable" result, the design would be altered to obtain an "OK". This could be achieved by reducing fuse size, increasing conductor size or reducing the length of conductors.

Impacted Standards

The contents of this technical bulletin will be included in the next update of the following standard:

- MDI 0030– Method of calculating voltage drop in low voltage mains