



# Technical Bulletin

## TB 0249 – LV overhead road crossing network mains supplying LV road clearance poles

### Purpose

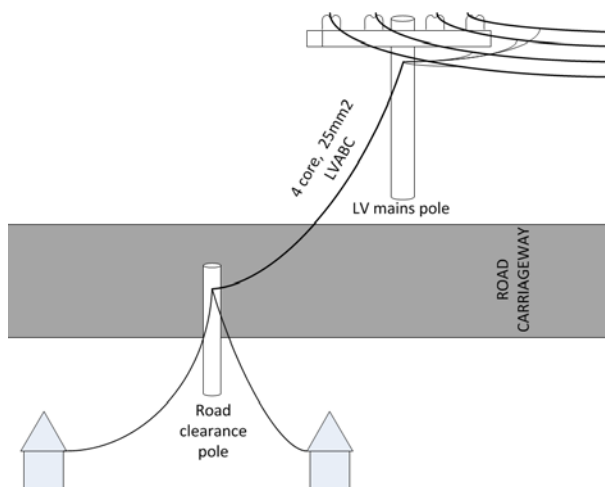
This technical bulletin has been issued to communicate the change in design requirements for LV overhead road crossing network mains supplying a LV road clearance pole that supplies more than two customers. This change applies to existing network upgrades only where a customer's supply is limited to 100 Amps.

### Background

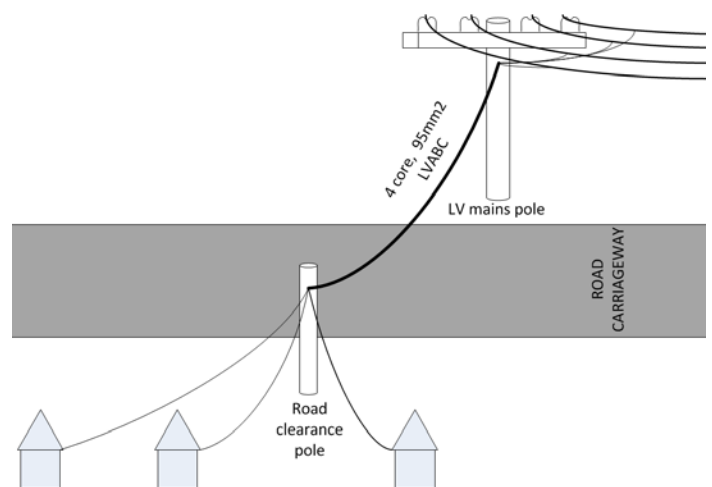
Endeavour Energy's Service Mains Replacement (SMR) program is being conducted to inspect all service wires in the network and upgrade them to current standards.

MDI 0031 clause 3.4.4 states that:

- a "4 x 25 LVABC may be used to cross a road and supply up to two customers" and
- "4 x 95 LVABC is the minimum requirement to supply greater than two customers".



4C 25mm<sup>2</sup> LVABC for up to two customers



4C 95mm<sup>2</sup> LVABC for greater than two customers

As part of the service mains replacement program, there are instances in the network where:

1. A LV road crossing cable is a bare conductor and, to comply with MDI 0031, is currently replaced with a 4C 95mm<sup>2</sup> LVABC where more than two customers are to be supplied.
2. A road clearance pole is required where the existing road crossing LVABC services that do not satisfy the ground clearance requirements. In most cases, only a 4C 25mm<sup>2</sup> LVABC is required as it is only supplying two customers, however, there are situations where a 4C 95mm<sup>2</sup> LVABC is required where it supplies more than two customers.

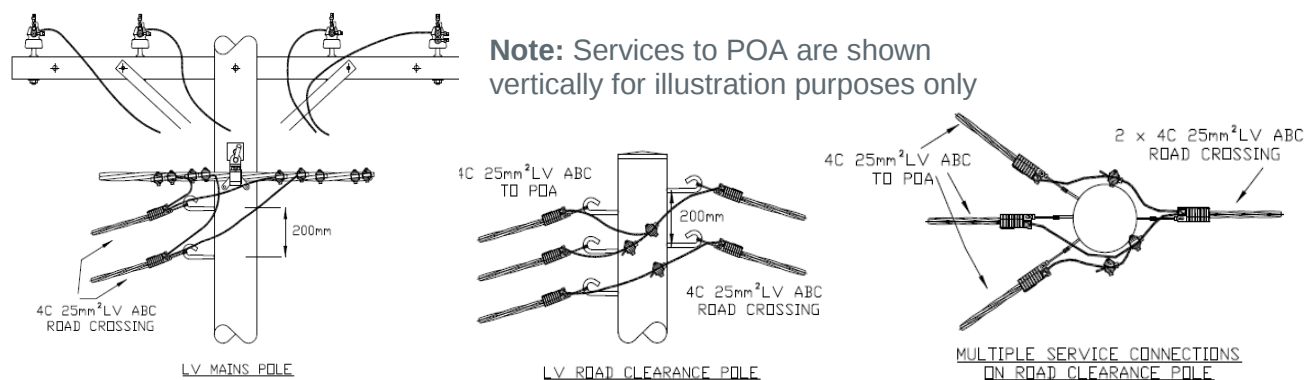
Field experience shows that when the above two situations are encountered, installing a 4C 95mm<sup>2</sup> LVABC causes delays and inefficiencies in delivering the SMR program.

Calculations were performed to assess the mechanical loading on the road clearance pole and found that installing two 4C 25mm<sup>2</sup> LVABCs results in a lower mechanical loading than installing a 4C 95mm<sup>2</sup> LVABC.

### Actions

As part of existing service mains upgrades, two 4C 25mm<sup>2</sup> LVABCs may be used as road crossing network conductors in place of a 4C 95mm<sup>2</sup> LVABC for connecting between a LV mains pole and LV road clearance pole with each 4C 25mm<sup>2</sup> LVABC to supply no more than two customers.

Each 4C 25mm<sup>2</sup> LVABC must be installed on individual 'J' hooks as illustrated in the figure below.



The ground clearances for LVABC mains and service cables must be in accordance with clauses 5.1.1 and 5.1.2 of MDI 0031.

### Implementation

The contents of this technical bulletin will be implemented immediately for existing road crossing service and network mains upgrade works only.

Instances where more than four customers are supplied from a road clearance pole must be referred to Regional Services.

### Impacted Standards

The contents of this technical bulletin will be included in the next update of MDI 0031 – Overhead line design.