Disconnected Neutral - LV Service Pillar

Event Date: 28/09/2026
Event ID: 2026-346
Event Type: Near Miss
Actual Consequence: Public/customer impact, with no injury reported
Potential Consequence: Electrical harm / equipment damage
Work Activity / Task: LV service connection - new pillar installation & livening

1. What Happened / What Did We Notice?

Approximately 20 days after NPE completed a new LV service connection, Powerco received a customer fault report relating to flickering lights and abnormal refrigerator operation. Northpower attended and identified the service neutral conductor stud sheared from the neutral stud-bar within the recently installed pillar.

No electric shock or injury was reported

2. What Influenced the Work?

The neutral connection had remained in service following installation, testing, livening and subsequent civil reinstatement.

Inspection identified the neutral terminal stud had sheared off with the broken portion recovered from the bottom of the pillar. Possible causes considered included excessive tightening of the terminal connection or excessive mechanical load on the service cable.

Examination of the failed stud did not support overtightening as the likely cause. The current working hypothesis is that the service cable may have been installed with insufficient slack, allowing subsequent movement or loading of the cable to impose force on the neutral stud. There was also information indicating other work may have occurred near the shared cable trench after the NPE installation.

3. What Did We Learn?

Service conductors must be installed and terminated with sufficient slack so that cable movement, settlement, reinstatement activities or subsequent work around the cable route cannot transfer mechanical load to terminal studs or connection points.

A connection can pass initial testing and remain operational for a period before a latent mechanical issue becomes apparent. Visual and mechanical confirmation of cable positioning and strain at the point of termination is therefore important before the pillar is closed and reinstatement occurs.

4. Actions

What needs to happen?	Who	By when
Reinforce the requirement for adequate service cable slack and no mechanical strain on pillar terminations.	Network Supervisors	Immediate
Review installation practice for final cable positioning before pillar closure and reinstatement.	Network Management	TBC
Consider whether a completion photo showing cable slack and termination arrangement should form part of the job record.	Network Management / HSEQ	TBC
Share the learning with relevant Network crews and contractors.	HSEQ	Immediate

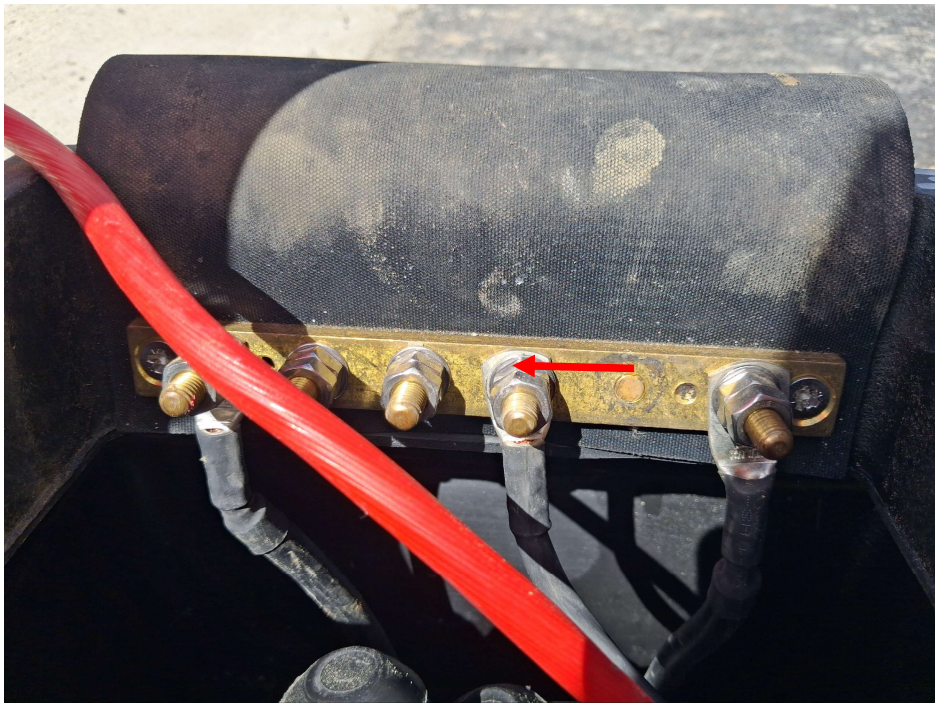


Photo 1. Post-repair condition showing the neutral service conductor re-terminated to the neutral stud bar.

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