INCIDENT INVESTIGATION CLOSEOUT

Date Issued: 15 May 2017 **ICAM 39**: Fairfax Fault Restoration

Event Details:
16th October 2016

A car struck a pole located adjacent to the Riverton Otautau Road. The pole was carrying a 66kV circuit with an underslung 11kv. The collision caused the pole to break below the 11kV. The broken section did not fully detach and with the conductors still attached to their insulators and crossarms, it canted over at an angle. The rest of the pole remained upright and clearance to ground was not significantly compromised. It was on a significant lean though.
The on call Powernet fault response Line Mechanic attended site and carried out a ground level inspection of the structure. There was no obvious damage to the insulators, which were still attached to the 66kV and 11kV conductors and crossarms.

Line Mechanic under instruction from the System Controller commenced switching to isolate the section of line with the broken pole. It was assumed that the 11kV circuit was still live as there had been no trip alarms from circuit breakers and no outage calls from customers. To achieve the isolation without interrupting supplies a tie point switch, Fairfax Tie ABS, was closed to parallel the circuit. When the Fairfax Tie ABS was closed the Riverton CB5 tripped. System Control Operator then instructed the Line Mechanic to reopen the North Fairfax Tie ABS. Once this was confirmed, System Control Operator remotely reclosed the Riverton CB5. Further checks found that the Knobbs hill CB which fed the section of line with the broken pole had tripped at the time of the accident. A cracked 11kV insulator on the broken pole was the cause of this trip. This was not visible from a ground level inspection.

WHY ICAM:
This event caused the potential for an injury to employees and the public. We care about our workmates and don't want this to happen to others, An ICAM is designed so that the root cause is determined and the correct measures are put in place to prevent the incident from happening to others.

ICAM 39 Outcomes:

If the pole is broken and on an angle either at ground level or part way up, make the safer call and turn off all circuits.

Don't assume the status of a circuit breaker. Faults person will need to drive to the field and relay status to system control. eg: Knobbs Hill c/b wasn't on SCADA and a wrong assumption was made during this incident.

Reminder to all staff that our primary goal during faults is "safely restore the power" not just restore safety quickly to prevent a breach of the Regulators rules. These rules are called SAIDI (length of outage in minutes) and SAIFI (number of outages).

Contact: For further information please contact Michelle Henderson 027 204 4864