

10 March 2021

Mr Ian Burgwin
 General Manager
 Electrical Safety and Technical Regulation
 Energy Safe Victoria
 Via email:

Dear Ian,

RE: RAPID EARTH FAULT CURRENT LIMITER FUNCTIONAL PERFORMANCE REVIEW RECOMMENDATIONS

Thank you for your letter of 12 February 2021, *Rapid Earth Fault Current Limiter Functional Performance Review Recommendations* advising of three recommendations (C, E and F) arising from the rapid earth fault current limiter (REFCL) functional performance review.

United Energy (UE) notes that the report was prepared for ESV in response to a recommendation made in the Grimes Report; that an interim assessment of the regulated REFCL program should be undertaken to further inform any change to the Electricity Safety (Bushfire Mitigation) Regulations 2013.

UE has addressed the three recommendations (C, E and F) made in the *Rapid Earth Fault Current Limiter Functional Performance* report.

Recommendation ID	Recommendation detail <i>United Energy response</i>
C	<p>It is recommended that distributors ensure that they hold sufficient strategic spares to ensure that REFCLs can be returned to service in the event of a component failure. In addition, distributors should ensure that the impact on REFCL performance as a result of a component failure is minimised. In this regard, the distributors should continue to explore ways to better integrate the REFCL and provide back-up protection which utilises the Arc Suppression Coil in the event that the REFCL controller fails.</p> <p><i>UE has implemented an inventory management system to manage strategic spares as part of its overall asset management strategy. This systems will ensure that the impact on REFCL performance as a result of a component failure is minimised. REFCL operating modes and the integration of the REFCL with backup protection, utilising the arc suppression coil shall continue to be refined.</i></p>
E	<p>It is recommended that the distributors explore methods to better predict damping values accurately, and remove the reliance on the bounded range currently adopted to mitigate the risk to the program and to maintaining compliance.</p> <p><i>United Energy does not see the value in developing a model for accurately determining network damping before a REFCL is installed particularly where there may be alternative strategies to maintain / improve REFCL performance. Network damping can be measured directly once a REFCL is installed.</i></p> <p><i>UE will continue to monitor REFCL performance and action remedial or improvement initiatives As Far As Practicable.</i></p>
F	<p>It is recommended that the distributors continue to collaborate with REFCL suppliers to develop fast voltage reduction and reduced energy released at the fault site with the objective of further reducing bushfire risk. The distributors are required to demonstrate their REFCL device can be operated at Required Capacity however, if the REFCL can be configured and operated differently to deliver an improved risk reduction at the fault site then this should be explored.</p> <p><i>United Energy will continue to collaborate with REFCL suppliers, however, there appears to be little appetite, or commercial incentive for individual suppliers to pursue collaboration with distributors.</i></p>

UE will continue to assess and implement REFCL performance improvements As Far As Practicable.

UE remains committed to compliance with the electricity safety legislation and will continue to work collaboratively with ESV to ensure robust systems are in place to facilitate compliance.

Should you have any further queries please contact Mike Tshaikiwsky, Network Risk and Assurance Manager

Yours sincerely,

Mark Clarke
General Manager, Electricity Networks