

21 July 2017

Mr Paul Fearon  
Director Energy Safe Victoria  
Level 5, Building 2  
4 Riverside Quay  
Southbank VIC 3006

Locked Bag 14051  
Melbourne City Mail Centre  
Victoria 8001 Australia  
T: 1300 360 795  
www.ausnetservices.com.au

(by email: pfearon@esv.vic.gov.au)

Dear Paul

**RE: The Marxsen Report; 'Customer assets directly connected to REFCL networks: a preliminary risk survey'**

In response to your letter to our Managing Director, Mr Nino Ficca dated 23 June 2017, I thank you for the opportunity to provide comment on the Marxsen report into factors that may create safety risks when high voltage (HV) customer sites are supplied by rapid earth fault current limiter (REFCL) protected networks.

AusNet Services provided a number of conceptual and technical comments on the draft report and many of these issues have been addressed in the final report. AusNet Services supports the technical findings of the report and consider it provides a good insight into the effects of REFCL operation on the assets contained within HV customer sites. Importantly, it acknowledges the safety risks that are presented if the customer installations have not been appropriately designed for the operation of the REFCLs and demonstrates that either installing isolating transformers or undertaking customer hardening works are necessary to mitigate this risk.

The final Marxsen report confirms that, in some circumstances, customer hardening works would cost less compared with installing isolating transformers, whilst still appropriately mitigating safety concerns. It also acknowledges that both the installation of isolating transformers and customer hardening works can be expected to involve significant time for design, procurement and commissioning of the required assets and that commissioning of any new assets may have to await suitable production halts.

However, other matters outside of the scope of the report also impact the preferred option. The report acknowledges that:

*This project did not consider factors other than cost in the 'isolation versus hardening' choice.*

*Specifically, it did not cover:*

- *Liability and regulatory considerations;*
- *Economic and financial consequences of supply reliability factors;*
- *Compliance with Victoria's Electricity Distribution Code without any requirement for negotiation;*
- *Specialised technical requirements; and*

- *Alignment with REFCL rollout timelines.*

*Customer representatives in on-site discussions were generally supportive of early hardening action and less aware of (or interested in) isolation options. However, this may not reflect a more fully considered corporate position on the issue.*

The deliverability of a viable solution to manage the safety risks that may be presented by HV customer installations is of critical importance for AusNet Services in rolling out the REFCL program. Whilst AusNet Services is mindful of its obligations under the amended *Electricity Safety (Bushfire Mitigation) Regulations 2013*, we also understand that if compliance with the Electricity Distribution Code (the Code) is technically achievable, albeit at additional cost, we have an obligation to comply.

As evidenced through REFCL installation by Powercor and AusNet Services to date, there remains a risk of plant and equipment failure despite network hardening activities being undertaken. Accordingly, the hardening of HV customer installations requires amendment of the Code to ensure HV customers remain responsible for their respective installations.

We are working with HV customers to identify the lowest cost solution. However, we do not consider customer hardening works will be a viable option for Tranche 1 customers given:

- The ESCV timetable for the review of the Code indicates that it will publish a Consultation Paper in the April to June quarter of 2018. This will be too late to amend our current plans to deploy isolating transformers and meet the legislative timeframes.
  - DELWP's advice to the Powerline Bushfire Safety (Section 8) Committee meeting of 13 June 2017 (per minutes) indicates ESCV's intent is to address supply quality standards separately to the general review of the Code. DELWP and ESV support and assistance in this process will provide additional REFCL implementation options.
- Pursuing customer hardening (without a change to the Code) requires individual negotiation with each customer to vary existing supply quality standards prescribed under the Code. HV customers have no clear incentive to vary existing supply quality standards where there are potential additional costs together with risk of plant and equipment failure.
- Testing and undertaking works on a customer's site will require more outages than the installation of HV isolating transformers. This additional downtime imposes a real cost on these large customers due to the disruption to the customers' operations from undertaking these works. Negotiating access at times that minimises the downtime to these

customers can be a significant driver of the lengthy timeframe needed to undertake this process.

Importantly, with the customer hardening approach, we are unable to directly control the safety risk associated with a potential cross-country fault at the HV customer site, as the obligation to be compatible with the higher REFCL voltages will reside with the customer.

As requested, a plan to address the risks identified in the Marxsen report will be provided by 31 August 2017 following the AER's decision on AusNet Services' contingent funding application.

We would be pleased to discuss this submission with you in more detail. Please feel free to contact our Manager Network Safety, Mr Phillip Bryant on 03 9695 6219 should you have any questions.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'AP', with a long horizontal flourish extending to the right.

Alistair Parker  
Executive General Manager,  
Regulated Energy Services  
**AusNet Services**