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29 May 2020

General Manager - Distribution  
Australian Energy Regulator  
GPO Box 520  
MELBOURNE VIC 3001

Submission emailed to: [VIC2021-26@aer.gov.au](mailto:VIC2021-26@aer.gov.au)

Dear Sir/Madam

**SUBMISSION IN RESPONSE TO AER ISSUES PAPER – VICTORIAN ELECTRICITY DISTRIBUTION DETERMINATION, 2021 TO 2026**

I am writing to submit the response of Energy Safe Victoria (ESV) to the Australian Energy Regulator's (AER) issues paper entitled 'Issues Paper - Victorian electricity distribution determination, 2021 to 2026'.

ESV has reviewed the AER issues paper and, while ESV continues to work with the AER and Victorian Distribution Network Service Providers (DNSP) on the detailed review of the 2021-26 Electricity Distribution Price Review (EDPR) submissions, ESV wishes to broadly comment at this time on two key areas:

1. Opex - the activity volumes that the distributors are proposing, and
2. Capex - forecast in replacement volumes for particular asset types.

**Opex**

- Rapid Earth Fault Current Limiter (REFCL) testing

As greater confidence is gained in the performance of REFCL, in conjunction with the Victorian DNSPs, ESV is working to make ongoing REFCL compliance testing more efficient at those previously commissioned sites that have been operational for at least one year. This excludes all sites being tested for the first time.

ESV has recently established an arrangement with Powercor to facilitate a more efficient testing regime that was utilised at Camperdown and reduced the number of tests performed from 128 tests (2018) to 20 tests (2020). ESV expects to have a similar arrangement in place with AusNet Services by 2021, thus making the future testing regime far less onerous.

- EDO fuse replacements (Opex/Capex – varies by submission)

The Electricity (Bushfire Mitigation) Regulations 2013 as amended on 1 May 2016 require the Victorian DNSPs to separately specify the construction standards for Electric Line Construction Areas (ELCA) in their Bushfire Mitigation Plans (BFMP). ESV expressed concern regarding an increasing number of fire starts due to the mal-operation of aging EDO fuses (particularly in ELCA). Consequently, ESV has worked with both Powercor and AusNet

Services to amend the high voltage fuse standard for any future overhead construction work that utilises overhead insulated or covered conductors in these areas. The amended standard now requires the use of Fault Tamer (FT) fuses. FT fuses have low mal-operation rates and low fire start rates. They are much preferred to EDO or Boric Acid fuses because of the better safety outcomes they deliver.

Therefore, ESV views the proactive initiative to replace EDO fuses with FT fuses in hazardous bushfire risk areas as prudent to arrest an increase in numbers of fire starts caused by EDO fuses. This is consistent with the businesses' BFMP as accepted by ESV.

## **Capex**

- Poles

In December 2019, ESV completed a detailed assessment of Powercor's wood pole management<sup>1</sup> approach following the St Patrick's Day fires of March 2018. The assessment specifically examined its capacity to deliver sustainable safety outcomes for the community. This assessment followed an earlier report from July 2019 into the condition of wood poles in the south west of Victoria that was informed by a review of maintenance and inspection records as well as independent field inspection and testing to verify the condition of poles.

This review found that Powercor's current management practices:

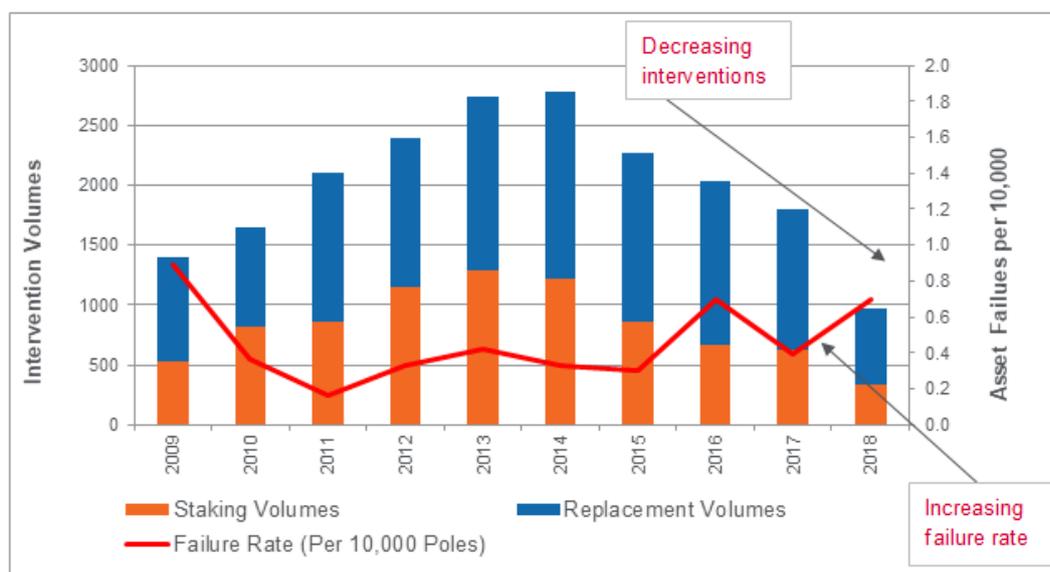
- would not provide sustainable safety outcomes
- required an elevated level of interventions (replacement or staking) to be maintained (in the order of between four to eight fold increase based on this review and a Powercor internal review) to provide confidence that sustainable safety outcomes will be delivered.

The review also found that Community expectations regarding safety meant it would not tolerate or support any further deterioration in performance. That performance, as illustrated in Figure 1 below, is declining.

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<sup>1</sup> Powercor – Wood Pole Management - Sustainable Wood Pole Safety Management approach - <https://esv.vic.gov.au/wp-content/uploads/2020/01/Detailed-technical-report-Powercor-wood-pole-safety-management.pdf>

Figure 1 – Powercor pole management performance<sup>2</sup>



ESV has conducted its detailed review and recognises that the Powercor improvement plan<sup>3</sup> is yet to be completed so the improved management practices can more accurately forecast the number of required interventions. Informed by its review, and the undoubted need to increase pole interventions, ESV supports the Powercor case for increased levels of intervention. We note that Powercor has not yet committed to its forecast intervention volumes in its BFMP due to uncertainty of the 2021-26 EDPR outcome and the replacement expenditure that will be approved by the AER.

The renewal of this population of assets is required to maintain safety outcomes and to avoid a marked deterioration in performance of this asset class. ESV’s investigation into management practices to provide sustainable safety outcomes has informed a position where ESV supports increased interventions for a longer period than that of this coming price review.

ESV will complete sustainable wood pole management reviews of all Victorian DNSPs during the 2020-21 financial year and is generally supportive of the increased forecast pole interventions for all Victorian DNSPs.

- Conductor
  - AusNet Services’ codified SWER replacement program

The replacement of bare HV conductors (22kV or SWER) in areas known as Electric Line Construction Areas (ELCA) in the Electricity (Bushfire Mitigation) Regulations 2013 as amended on 1 May 2016 (extract below) is triggered by the requirement to relocate or replace four consecutive spans or more. Hence, it is intended to deliver a gradual replacement as assets age, or if augmented or relocated. AusNet Services’ proposal for polyphase (\$4M) and SWER (\$1.2M) ELCA replacements is based on its estimate of replacement to meet this obligation in the 2021-26 period.

<sup>2</sup> Extract (Figure 40) from ESV report on Powercor – Wood Pole Management

<sup>3</sup> Powercor Pole Management Improvement Plan (PMIP) as accepted and monitored by ESV in the Powercor Bushfire Mitigation Plan

**7 Prescribed particulars for bushfire mitigation plans—major electricity companies**

**(1) For the purposes of section 113A (2)(b) of the Act, the following are the prescribed particulars—**

*(hc) details of the preventative strategies and programs referred to in paragraph (h) (including details in relation to timing and location) by which the major electricity company will ensure that, on and from 1 May 2016, within an electric line construction area, each electric line with a nominal voltage of between 1 kV and 22 kV that is constructed, or is wholly or substantially replaced, in its supply network is a covered or underground electric line;*

**wholly or substantially replaced** means the planned replacement or relocation of an electric line that involves—

- (a) the relocation of at least 4 consecutive spans of the electric line; or*
- (b) the replacement of conductors on at least 4 consecutive spans of the electric line.*

The proposed 100km SWER replacement (\$33.5M) program is a separate proactive replacement initiative by AusNet Services that aligns with the intent of the above regulatory obligation as per the 2015 Regulatory Impact Statement (RIS) that informed the 2016 amendment to the Electricity (Bushfire Mitigation) Regulations 2013. The RIS estimated that the replacement of all bare HV ELCA conductors with covered conductor should occur within 25 years (i.e. by 2040).

This proactive 100km replacement would increase the rate of replacement in ELCA to a level consistent with achieving the intent of the RIS.

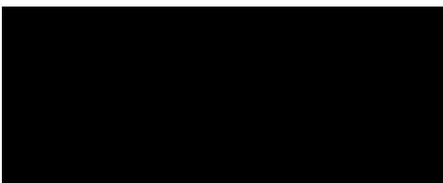
- Other Programs and final comments

ESV's detailed review of the of the specific initiatives within the Victorian DNSP 2021-26 EDPR safety-related programs is continuing in collaboration with the AER and the DNSPs. ESV continues to seek further details on specific matters to conclude its assessment.

When a Victorian DNSP's proposed programmes or initiatives are supported on the basis of meeting safety objectives through the 2021-26 EDPR period, ESV will hold the DNSP accountable for delivery through commitments to be articulated in either its Electrical Safety Management Scheme or BFMP. A DNSP that fails to comply with one of these documents, once accepted by ESV, is exposed to enforcement action.

Should you have any queries regarding this matter, please contact Brett Fox, Head of Electrical Network Infrastructure at [REDACTED] or on [REDACTED].

Yours sincerely



Ian Burgwin  
**GENERAL MANAGER**  
**ELECTRICAL SAFETY & TECHNICAL REGULATION**