

POWERLINE BUSHFIRE SAFETY COMMITTEE

MINUTES OF MEETING No. 07

Held: Tuesday 12 June 2018, at 10:00 am

Location: Level 5, Building 2, 4 Riverside Quay, Southbank

Attendees:	Status	
David Harris	Member	Chairman
Gaye Francis	Member	Director, R2A Pty Ltd
Steve MacDonald	Member	General Manager Infrastructure, Orion NZ Ltd
Tony Marxsen	Member	Director, Marxsen Consulting Pty Ltd
Gail Moody	Member	Director, Wilmin Consulting
Claire Noone	Member	Principal, Nous Group
Paul Fearon	Observer	Director of Energy Safety, ESV
Ian Burgwin	Observer	General Manager Electrical Safety & Technical Regulation, ESV
Tom Hallam	Observer	General Manager Regulation and Network Strategy, AusNet Services
Hana Williams	Observer	Program Director REFCL, AusNet Services
Steven Neave	Observer	General Manager Electricity Networks, CitiPower and Powercor
Andrew Bailey	Observer	REFCL Technical Director, Electricity Networks, CitiPower and Powercor
Lorna Mathieson	Observer	A/Project Director Energy Programs, Energy, Environment and Climate Change, DELWP
Robert Skene	Secretariat	Senior Technical Advisor, ESV
Apologies:	Status	
Georgie Foster	Observer	Acting Director, Energy Safety and Security, Energy, Environment and Climate Change, DELWP
Gary Towns	Member	Director, Facio Pty Ltd

Agenda item Discussed:

Item	Matter	
Part A	Committee Members and secretariat only	
1	Committee Discussion	David Harris
Part B	Committee Members and Observers	
2	Introduction	David Harris
3	DB progress to-date	Steve Neave/ Tom Hallam
4	Discussion	David Harris
5	Future meetings	David Harris

Part A - Committee members and secretariat only

1. Committee Discussion

1.1. Committee procedural

There was a brief discussion on the conduct of this meeting, noting the draft PBSC Advice Process had been used as a guide in regard to the referral by the DoES for advice on the ESCV draft EDC decision, and a new referral regarding advice on certain REFCL related exemptions. See item 1.4.

1.2. Register of Engagements – Committee Members

No further declarations of engagements were reported by Members.

Standing Action: Members to provide advice to the Secretariat by email on matters where there may be a perceived conflict of interest.

1.3. Committee Charter

The Chair noted that DoES had revised the committee's charter and that a copy had been circulated to members prior to the meeting. The revised charter includes two representatives from DELWP as observers, reflecting the restructure of the energy sector in DELWP, and updated biographies of members.

There was a brief discussion on the scope of the charter and potential future changes to the committee, including those which may flow from the Independent Review of Victoria's Electricity and Gas Safety Framework - Final Report.

Action: Secretariat to post the revised committee charter on the PBSC web page.

1.4. PBSC Advice Process

The Chair noted that a draft flow diagram of the process for the provision of advice had been provided by the Secretariat and circulated to members prior to the meeting.

The committee considered the draft a working paper with Members reflecting it illustrated the key principles of planning, developing, reviewing advice to the DoES. Members agreed that it provided an acceptable illustration of the notional process to support the committee's deliberations for the provision of advice to the DoES.

It was further agreed that footnotes be added to clarify that this was a notional process agreed by the committee and that the Chair may initiate actions on receipt of a request for advice pending consultation with the committee following this draft process or another process that seems in the circumstances to be suitable.

It was recognised that subsequent to the production of a number of advices that the committee may wish to review the process.

Action: Secretariat to finalise the draft process outline including certain explanatory footnotes from the committee's discussion.

1.5. ESCV Draft Decision on the review of the Electricity Distribution Code

The DoES wrote to the Chair on 30 May 2018 requesting advice be provided by 15 June 2018 regarding the ESCV's Draft Decision on changes to the voltage standards contained in the Electricity Distribution Code. Copies of this letter were provided to members on 31 May 2018.

The Chair tasked certain members to develop a draft advice which following discussion by members at this meeting is to be revised and redistributed to members on 12 June 2018. Any further comments from members will then be considered by the Chair and a settled version forwarded to the DoES before 15 June 2018.

Action: Chair to provide the committee's advice on the ESCV Draft Decision on the review of the Electricity Distribution Code to the DoES by 15 June 2018.

1.6. REFCL Program Exemptions

The DoES wrote to the Chair on 08 June 2018 requesting advice be provided by 27 June 2018 regarding six applications from AusNet Services to exempt parts of a polyphase line, emanating from complying substation, from the required capacity. Copies of this letter were provided to members on 8 June 2018.

The Chair tasked certain members to develop a draft advice which following production was distributed to members for comment. The draft advice was discussed by members and members invited to provide further comments to the Chair for consideration with the intent to forward a settled version to the DoES before 27 June 2018.

Action: Chair to provide the committee's advice on the six AusNet Services exemption applications to the DoES by 27 June 2018.

1.7. Other business

There were no matters discussed by the members as other business.

Part B - Committee Members and Observers

2. Introduction

2.1. Attendance and apologies

The Chair informed the meeting that Georgie Foster would not be attending the meeting.

2.2. Previous meeting minutes

Minutes of the previous meeting were circulated out of session with one small typographical correction identified and actioned.

The Chair requested Members approve the revised minutes as a record of the meeting held on 13 March 2018.

Committee decision: Passed without dissent.

Action Secretariat to post the minutes on the ESV PBSC web page.

2.3. Outstanding actions from previous meetings

The Secretariat updated the meeting on the outstanding actions from previous meeting as listed on the agenda circulated for this meeting.

Meeting date	Matter	Action	Status
13/06/2017	2.3 Outstanding Actions	Members to consider the content of the process/protocol for the provision of advice to the DoES, when requested.	The process for the PBSC consideration is to be subject to the nature of the exemption and the form of the request for advice.
	2.3 Outstanding Actions	The secretariat to produce an outline of the process/protocol for the provision of advice to the DoES, when requested.	The process for the PBSC consideration to be subject to the nature of the exemption and the form of the request for advice.
12/12/2017	4.1.2 REFCL operation	AusNet Services and Powercor to confirm out of session, in the next couple of weeks, that their current intended REFCL operation modes are specified in their respective bushfire mitigation plans.	Open
12/12/2017	4.1.2 REFCL operation	AusNet Services and Powercor to provide a narrative out of session, in the next couple of weeks, of their current intended REFCL operation modes contained in their respective bushfire mitigation plans.	Open
13/03/2018	2.4 Outstanding actions from previous meetings	AusNet services and Powercor to confirm the circumstances where and when they intend to bypass the GFN to use a Neutral Earthing Resistor for sustained faults.	Open
Outcome legend			Open
			Closed

AusNet Services undertook to provide the committee with a response to the three open items.

Standing Action: Secretariat to provide Members a list of matters where the industry is likely to seek relief from requirements with each meeting agenda.

Standing Action: Presenters to send the Secretariat a copy of their presentation a clear two business days before the meeting for distribution to members.

3. Electricity Distribution Business - progress to-date

The Chair noted that the agenda for this meeting requested the businesses provide an update on delivering the legislative requirements, exemptions & the businesses views on the ESCV Draft Decision regarding amendments to the Electrical Distribution Code.

Tom Hallam and Steve Neave each separately provided updates on their businesses' progress in implementation of the requirements contained in the Electricity Safety (Bushfire Mitigation) Amendment Regulations.

3.1. Powercor

A PowerPoint presentation was provided on Powercor's REFCL program.

3.1.1. REFCL Timetable

A slide showing the current REFCL deployment plan, by tranche, was presented and discussed. Members' attention was drawn to the intent to achieve a REFCL deployment point score of 35 points in the first tranche, compared to the minimum regulatory requirement of 30 points. Powercor advised that the Camperdown ZSS had now been commissioned and is in operation, but yet to be tested to demonstrate it has achieved the required capacity.

3.1.2. REFCL Implementation update

A slide providing an update on implementation was presented and discussed.

Gisborne zone substation

Powercor advised that they have retested their Gisborne station in ESV's presence to confirm that it meets the specified capacity.

There was a brief discussion regarding undertaking compliance testing in adverse weather conditions and with settings potentially different to those of highest fire danger.

Woodend zone substation.

Powercor updated the meeting on the recent experiences at this station associated with locating a defective asset which had been preventing the required performance from being delivered.

Powercor advised that they expected to be in a position to have ESV witness compliance testing before the end of June 2018.

Camperdown zone substation.

Powercor reported that whilst this station had initially been commissioned in early April 2018, there had been some subsequent asset failures and REFCL performance issues.

Marlborough zone substation.

Powercor advised that they were conducting stress testing this week, with commissioning to follow.

3.1.3. REFCL performance issues

Powercor provided a slide on recent REFCL performance issues, both software and hardware related, with the GFN product not performing as designed.

In the case of Camperdown the inability of the REFCL to perform the soft fault confirmation was reported. Further a voltage excursion of up to 27kV was reported during a recalibration before manual intervention. Powercor confirmed that their system design did not incorporate neutral displacement over-voltage protection.

Powercor further advised that the GFN supplier, Swedish Neutral, had today requested that Powercor suspend any further compliance testing until the end of August 2018. Powercor expressed the view that this had the potential to delay their program by two or more months.

There was a brief discussion on these issues, the number of software upgrades since the PBSP testing and the delivery schedules. These problems said to be common to both Powercor and AusNet Services.

3.1.4. Tranche 1 & 2 deployment program.

A slide depicting the time line for works on the distribution network for Tranche 1 & 2 zone substations was shown and discussed in the light of recent developments.

3.1.5. REFCL Tranche 1 - HV Customers.

Powercor produced and discussed a slide showing each of the ZSSs in the Tranche 1 REFCL program and the related HV customer supply points.

The slide showed the proposed alternate treatments for HV customers, including isolation, customer network hardening, and LV conversion. Powercor identified a change in treatment for one Colac ZSS HV customer since the last meeting, moving from the installation of an isolating transformer to a hardened solution.

REFCL Tranche 1 isolation substations

A slide showing the isolation transformer delivery and construction schedule for Tranche 1 ZSSs was shown and discussed, with Powercor expecting that all of the required lease agreements with customers would be established and finalise by the end of June 2018.

3.1.6. REFCL Exemption Requests.

A slide showing the status of exemptions was shown to the committee.

Powercor confirmed that exemption applications had been resubmitted to ESV last week for all of their networks associated with the Tranche 1 deployment.

All but one application is associated with isolating HV customers. One application associated with the installation of an isolating transformer into its Winchelsea network to manage the high capacitance from more than 53km of underground network, said to have been constructed as part of the government's powerline replacement initiative.

It is understood that these applications are being assessed and that the DoES will be subsequently submitting a request for advice from the committee.

3.1.7. ESC Draft Decision

Powercor provided a slide which presented their view on the ESC Draft Decision, pointing out the decision places the responsibility on to the HV customer to ensure their installation is REFCL ready.

Powercor discussed that they are now reliant on HV customers to meet their legislative timelines and that there is clarification required regarding HV customers being REFCL ready, in particular what might happen if they are not ready.

3.1.8. SWER ACR Deployment Status

Powercor provided a slide showing the progress in the delivery of new functionality ACRs into their SWER network, confirming that the deployment would be completed in 2019/20.

3.1.9. Powerline Replacement – Electric Line Construction Areas.

Powercor provided a slide showing the extent of the replacement of powerlines in the mandated Electric Line Construction areas through the governments Powerline Replacement Program.

Standing Action: Powercor's presentation to include updates on SWER ACR deployment and powerline replacement in Electric Line Construction Areas.

Action: Copy of Powercor's Power Point presentation to be distributed to Members and Observers and made available on the ESV PBSC web page.

3.2. AusNet Services

A PowerPoint presentation was provided by AusNet Services on their REFCL and other bushfire mitigation programs.

3.2.1. REFCL Tranche 1A commissioning

(Woori Yallock (WYK), Barnawartha (BWA), Rubicon A (RUBA))

AusNet Service provided and discussed a slide showing the current status of each these REFCL ZSS.

Compliance testing was expected to be completed at WYK and RUBA ZSSs in early August 2018, but have been delayed until the end of August 2018 as a result of technical issues with the GFN and on advice from the supplier Swedish Neutral.

3.2.2. GFN technical issues

AusNet Service provided a slide summarising the recent technical issues experienced with the Swedish Neutral GFN. These issues were said to include hardware failures, software bugs and GFN Human Machine Interface (NMTerm) bugs.

Problems said to be similar to those with Powercor's GFNs. AusNet expressed the view that until these issues are resolved they do not believe that the GFN is suitable to be placed in service.

3.2.3. Program Status

AusNet Service provided and discussed a slide showing the current status of each REFCL ZSS.

Tranche 1 ZSSs have been shown in three groupings:

- Tranche 1A – ZSSs in the commissioning phase

- Tranche 1B – ZSSs having no HV customers
- Tranche 1C – more difficult ZSSs with HV customers and issues still to be resolved.

3.2.4. Tranche 1 Roadmap

There was no discussion on the slide in the presentation pack.

3.2.5. Tranche 1 delivery dashboard

A dashboard slide for Tranche 1 ZSSs was shown, with AusNet Services stating that all of their station and line works were on track, and that it was the treatment of HV customers which remain on the critical path.

Progress is being made on the two ZSSs flagged as red:

- Seymour (SMR) – the HV customer has advised AusNet Services that they have agreed to place underground a section of bare polyphase line within their property to facilitate the installation of an isolating transformer at their point of supply.
- Wonthaggi (WGI) – agreement has been reached with the HV customer that an isolating transformer and not hardening is the preferred option. Discussions were said to be progressing well in the development of an appropriate cultural heritage management plan required for the isolating transformer.

3.2.6. Tranche 1 delivery

A slide showing the steps to achieve compliance for the Tranche 1 program was shown by AusNet Services. Following conversations with ESV AusNet Services advised that compliance testing would not delay the delivery of the Tranche 1 complying substations; rather it was the completion of HV customer works.

3.2.7. Line balancing units

A slide showing the line balancing units being deployed across the AusNet Services network was shown. It was said that these units had the capacity to be controlled remotely allowing for a dynamic or active balancing system to cater for changes in the network.

3.2.8. Tranche 1 REFCL exemption applications

AusNet Services explained that all but one exemption applications currently with ESV feature the undergrounding of a small section of conductor between an isolating transformer and the customers point of supply.

One application has an additional feature where the HV customer owned section has a small section of overhead bare powerline downstream of the isolating transformer. It was said that there had been agreement with the HV customer to place this section of powerline underground, so as to remove the potential fire start risk were this powerline to be isolated from the effect of the REFCL. In this case AusNet Services stated that this HV customer has a significant underground network and that the installation of isolating transformers is the lowest cost option.

3.2.9. REFCL operating regime

AusNet Services provided a slide showing the three proposed operating modes, being seasonally driven.

AusNet Services undertook to provide more details of their operating modes to ESV following this meeting as part of their updated Bushfire Mitigation Plan.

There was brief conversation regarding the adoption of the 2.5 amps sensitivity in the operating regime.

3.2.10. ESC review of voltage standards

AusNet Services presented a slide relating to the ESC draft decision and discussed the positive aspects of the draft decision and the features which they saw as still needing to be addressed.

AusNet Services stated that their views on the draft decision would be contained in their submission to the ESC to be submitted before 22 June 2018.

3.2.11. ACR program

AusNet Services confirmed that they had completed their required SWER ACR replacement program in 2015.

3.2.12. Powerline replacement

AusNet Services provided a slide showing the status of the conductor replacement associated with the government's Powerline Replacement Fund (PRF) contracts.

AusNet Services reported that there were approximately 16,680 km of conductor in the declared Electric Line Construction areas (ECLA) and that through the PRF they had to date replaced 115 km, with 74 km currently being replaced.

AusNet Services confirmed that they had no other projects in addition to the PRF to replace conductors in ELCAs at this time as their conductors had been assessed as in good condition.

Action: Copy of AusNet Services Power Point presentation to be distributed to Members and Observers and made available on the ESV PBSC web page.

3.3. Discussion

There was a brief discussion on the ESC review of voltage standards and that ESV intends to write to the ESC on 12 June 2018, prior to attending the ESC stakeholder forum.

The ESC has confirmed that they expect to make a final decision in early August 2018.

4. Discussion

4.1. Committee Member raised matters

None

4.2. Other matters

None

5. Meetings

5.1. Next meeting

Meeting scheduled for 11 September 2018, starting at 10:00am and finish at 12:30pm, preceded by a “meet and greet” at 9:30 am.

5.2. Subsequent meetings

Confirmation was given that subsequent meetings are scheduled for; 11 December 2018, 12 March 2019, and 11 June 2019.

The Chair thanked the presenters for interesting and informative papers, and the members and observers for their endeavors to ensure the meeting was productive.

The Chair then closed the meeting.

Meeting closed at 12:30 pm.

List of Attachments

- A. Powercor presentation,
- B. AusNet Services presentation