

POWERLINE BUSHFIRE SAFETY COMMITTEE

**MINUTES OF MEETING No. 09**

**Held: Tuesday 11 December 2018, at 10:00 am**

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

<b>Attendees:</b>	Status	
David Harris	Member	Chairman
Gaye Francis	Member	Director, R2A Pty Ltd
Steve MacDonald	Member	General Manager Infrastructure, Orion NZ Ltd
Gail Moody	Member	Director, Wilmin Consulting
Gary Towns	Member	Director, Facio Pty Ltd
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
Felicity Sands	Observer	Manager, Energy Safety Policy  Energy Sector Reform   DELWP
Robert Skene	Secretariat	Senior Technical Advisor, ESV
<b>Apologies:</b>		
Tony Marxsen	Member	Director, Marxsen Consulting Pty Ltd
Claire Noone	Member	Principal, Nous Group
Georgie Foster	Observer	Acting Director, Energy Safety and Security, Energy, Environment and Climate Change, DELWP

**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	HV customers – DELWP update of T2 & T3 customer issues	Lorna Mathieson
5	Discussion	David Harris
6	Future meetings	David Harris

## **Part A - Committee Members, the Secretariat and the Director of Energy Safety.**

### **1. Committee Discussion**

#### **1.1. Committee procedural**

There was a brief discussion on the potential for conflict of interest and secrecy provisions associated with the membership this committee and of other government committees.

#### **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**

A brief discussion was held regarding circulated revision to the PBSC charter drafted to broaden the current scope to expand the coverage from the electricity distribution companies compliance with requirements specified in the regulations for the REFCLs, powerline replacement and SWER ACRs, to broader bushfire mitigation matters, including those that impact on carrying out these initiatives. Further suggestions were made by the committee in session for inclusion in the revised charter.

The DoES encouraged the PBSC to expand its oversight of matters of bushfire safety which were beyond those matters raised by the electrical distribution businesses. The conduct of workshops in this regard was supported.

As agreed at the last meeting changes to the PBSC charter that were drafted did not include requirements suggested in the Independent Review of Victoria's Electricity and Gas Safety Framework - Final Report, recommendation 27. The DoES confirmed that ESV intends to raise the subject of recommendation 27 and the PBSC charter with the Minister in the newly elected government early next year.

**Action:** Secretariat to draft further changes to the PBSC charter suggested at this meeting for the Members and DoES's consideration.

**Action:** ESV intends to raise recommendation 27 and the PBSC charter with the Minister in the newly elected government.

**Action:** Secretariat to explore opportunities for the conduct of workshops post April 2019 to consider boarder bushfire safety matters.

#### **1.4. REFCL Program - Future exemption requests**

Secretariat advised that AusNet Services has presented ESV with a draft application for a time extension for all of the Tranche 1 zone substations. ESV has responded to the draft suggesting the inclusion of certain specific additional information. AusNet Services have confirmed their intension to lodge a formal application for a time extension.

There was a brief discussion regarding potential future exemptions and requests for time extensions.

### 1.5. Other business

There was a brief conversation regarding the limited replacement of powerlines in the electric line construction areas since the introduction of the new regulations in 2016. It was noted that the majority of the replacement to date has been through the government's funded powerline replacement program.

Powerline Bushfire Safety Program (PBSP). DELWP have advised that they intend to hold a workshop in late December 2018 on Version 2 of the PBSP, with the current program to wind up in 2019. It was noted that a number of PBSC committee Members have been invited to this workshop.

The Chair reflected on the progress of the PBSC over the first 24 months and thanked Members for their committee work to date.

Members all expressed a view on their desire to continue in their role within the committee.

The timing of the next PBSC meeting scheduled for March 2019 was discussed in the light of PBSC attendees' availability.  
A new date of April 3 or 4, 2019 was proposed.

**Action:** Secretariat to canvas and obtainment agreement of a revised date for the next PBSC committee meeting.

## Part B - Committee Members and Observers

### 2. Introduction

#### 2.1. Attendance and apologies

The Chair informed the meeting that the PBSC member Tony Marxsen would not be attending the meeting, but that he had submitted comments relevant to the proceedings to the Secretariat.

The Chair also informed the meeting that the DELWP observer Georgie Foster would not be attending the meeting, and that he had accepted the attendance of Felicity Sands to represent that section of DELWP.

#### 2.2. Previous meeting minutes

A draft copy of the Minutes of the previous meeting was circulated out of session. Following minor adjustments a revised copy of the minutes was distributed out of session.

The Chair requested Members approve the revised minutes as a record of the meeting held on 11 September 2018.

**Committee decision:** Passed without dissent.

**Action** Secretariat to post the minutes of the 11 September 2018 PBSC meeting on the ESV PBSC web page.

**2.3. Actions from previous meetings****Actions from the last meeting.**

Meeting date	Matter	Action	Status
11/09/2018	<b>1.3</b> Committee Charter	Secretariat to draft for the committee and DoES's consideration a revision to the committee charter to broaden its scope in so far as legislative coverage and the provision of pro-active advice.	Draft produced and circulated to DoES and Members
	<b>1.7</b> REFCL Program – Exemption applications - PBSC Advice	Chair to provide the committee's advice on the one AusNet Services and four Powercor exemption applications to the DoES by 12 September 2018.	Chair provided the PBSC Advice on these applications to DoES on 11 September 2018.
	<b>2.2</b> Previous meeting minutes	Secretariat to post the minutes of the June meeting on the ESV PBSC web page	Adjusted minutes have been emailed to Members & Observers Settled minutes to be posted following the September committee meeting
	<b>3.2</b> Powercor presentation	Copy of Powercor's Power Point presentation to be distributed to Members and Observers and made available on the ESV PBSC web page	Posted
	<b>3.1</b> AusNet Services presentation	Copy of AusNet Services Power Point presentation to be distributed to Members and Observers and made available on the ESV PBSC web page	Posted

Meeting date	Matter	Action	Status
11/09/2018	3.1.7 REFCL operating mode policy	AusNet Services to provide the logic used to derive the 2.5 amp sensitivity setting adopted in the operating modes policy.	AusNet Services confirmed their intention to write to ESV to provide the logic of the use of the 2.5 amp sensitivity, by Friday December 21, 2018.
<b>Outcome legend</b>			Open
			Closed

**Action:** AusNet Services to provide the logic used to derive the 2.5 amp sensitivity setting adopted in the operating modes policy.

### Outstanding actions from previous meetings

The Secretariat advised that all outstanding items from previous meetings have been closed.

**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

Both AusNet Services and Powercor provided the Secretariat copies of their update on progress in implementation of the requirements contained in the Electricity Safety (Bushfire Mitigation) Amendment Regulations prior to the meeting. Copies of these updates were made available to Members for their study prior to the meeting.

The updates were taken as read with a page turn not undertaken at this meeting and discussion limited to specific items.

#### 3.1. Powercor

A PowerPoint presentation was provided on Powercor's REFCL and other bushfire mitigation programs.

##### 3.1.1. REFCL Timetable

A slide showing the current REFCL deployment plan, by tranche, was presented and discussed.

##### Tranche 1

Powercor confirmed that compliance testing was now complete for seven of the zone substations totaling the required 30 points for Tranche 1. Compliance testing for the eight zone substation (Colac) is now expected to be undertaken next year.

##### Tranche 2 & 3

Powercor drew Members' attention to the PowerPoint presentation which confirmed their previous advice regarding the reallocation of the Geelong

zone substation from the Tranche 2 deployment into Tranche 3, and both the Terang and Ararat zone substations from the Tranche 3 deployment into Tranche 2.

Powercor confirmed that moving the Geelong zone substation into the Tranche 3 deployment was to provide additional time to explore the construction of a new zone substation at Bannockburn in the Geelong area. It was said that the intention was that this new zone substation would acquire the highest bushfire risk feeders from both Geelong (two feeders) and Corio (one feeder) zone substations. Powercor suggested that the building of this new zone substation would be a lower cost solution, with Geelong being a complex station. Further Corio and Geelong zone substations have seven HV customers which need to be REFCL ready, none of which are on the high bushfire risk feeders. Powercor further advised that it was their intention to complete conversations with ESV and the AER regarding any proposed changes to zone substations prior to any construction activities.

Powercor noted that the introduction of REFCLs into zone substations associated with Terminal stations were included in these tranches and that these deployments may well be more difficult than the stand alone zone substations.

Powercor advised that as part of the Tranche 1 deployment that there had been over 1,700 primary fault tests, with REFCLs covering over 5,500 km of the HV distribution network with 67,000 connected customers.

Powercor explained that they had held workshops with EMV to explain the initiatives they had undertaken.

DELWP confirmed that they were finalizing a paper explaining the program progress to date.

### **3.1.2. REFCL performance issues**

A technical issue has been identified with the GFN which adversely impacts achieving the thermal energy performance requirement specified in legislation. The issue is observed when testing at the lower sensitivity and appears to impact the largest feeders. Powercor believe that it is associated with the admittance measurements made by the GFN.

This fault has now been identified at the Castlemaine, Woodend, Winchelsea and Eaglehawk zone substations.

When present the issue can cause a feeder to be incorrectly tripped, negatively impacting on customer reliability and the fire performance, with the faulted feeder being subject to elevated voltage during the confirmation process.

The GFN manufacturer, Swedish Neutral (SN), initially believed the problem to be associated with the GFN sampling frequency and provided upgraded hardware to address the problem. The upgrade was trialed at the Winchelsea zone substation, with SN in attendance, but was not successful in addressing the problem.

Powercor advise that at the time of this meeting SN do not have a proposed solution for the problem.

Powercor further advised notwithstanding the admittance measurement problem that testing confirmed individually feeders can meet the performance requirement. In the interim, Powercor advised that they have

reduced the sensitivity on feeders impacted by the admittance problem so as to continue to operate the REFCL at the zone substation as a whole for this summer.

Powercor also advised that from the testing to date that they have noted the presence of harmonic distortion voltages, the highest being at Maryborough, but they have not been at a level to adversely impact on achieving the required performance. There was a general discussion regarding harmonics on networks, which were said to vary during the day, appear to be lowest on times of high load demand, and customer input limits which are specified in Victorian Electricity Distribution Code.

### **3.1.3. REFCL Tranche 1 - HV Customers.**

There was a brief discussion on a HV customer reference group organised by DELWP, where concern was expressed around the lack of technical information available on necessary equipment specifications. With the assistance of the electrical distributors, ESV has subsequently prepared and issued technical advice to all HV customers affected by the REFCL rollout.

### **3.1.4. Powerline Replacement – Electric Line Construction Areas.**

Powercor advised that negotiations continue with ESV on the design standard for SWER hybrid underground design for incorporation into their Powercor's Bushfire Mitigation Plan, as required by legislation. It is expected that the matter largely involving exposed metallic components will be settled by the end of December, 2019.

Powercor expect that a total of 346 km will be replaced through the governments' Powerline Replacement Program. Powercor undertook to include in its next presentation the amount of powerline which has been replaced in Electric Line Construction Areas as part of their general obligation contained within the regulations.

**Standing Action:** Powercor's presentation to include updates on SWER ACR deployment and powerline replacement in Electric Line Construction Areas (both as part of the PRF and as a result of other obligations).

**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 Program status**

AusNet Services confirmed that the Wonthaggi zone substation had been moved from the Tranche 1 deployment group into Tranche 2 deployment group as a result of associated environmental matters. AusNet Services advised that this shift would not adversely impact on their meeting the required 30 points for the Tranche 1 deployment, with the remaining eight zone substations having sufficient points.

### 3.2.2. REFCL Tranche 1 commissioning

AusNet Services advised that seven out of the eight zone substations in the Tranche 1 deployment were now commissioned, with five sites having been stress tested.

AusNet Services also advised that compliance testing had been completed at Barnawartha, with the test report expected to be submitted by December 14, 2018.

AusNet Services further advised that all HV customer works associated with the Tranche 1 deployment will be completed by December 21, 2018, with the exception of AGL who have elected to undertake network hardening at their own expense. The AGL hardening works were believed to be on track for completion by February 2019 and this timing did not pose a risk to AusNet Services Tranche 1 deployment schedule.

### 3.2.3. REFCL Tranche 2 deployment

AusNet Services stated that they have been informed by metro trains that three of their installations in the Tranche 2 deployment program will not be REFCL ready when required. AusNet Services advised that this posed a threat to AusNet Service's Tranche 2 program and were exploring solutions.

### 3.2.4. REFCLs in service for the 2018/19 summer

AusNet Services advised that the five zone substations which have been stress tested, will have REFCLs operating over the coming summer period at the maximum capacity possible, albeit that this may be less than the legislated performance.

### 3.2.5. Network Harmonic Distortions

AusNet Services advised that a consultant, with experience with harmonic voltage distortions in the NZ during Orion's GFN deployment, has been commissioned to build a model to replicate potential solutions for the AusNet Services network. Acknowledgement was given to Orion who removed confidentiality provisions with a NZ University to facilitate the building of this model.

Additional data was said to be being collected, both at the zone substation busbar and elsewhere on the AusNet Services network, to support the building of the model.

Whilst there was no timeline given for the collection of the data, AusNet Services expressed a view that the solution to treating the harmonics issue should be known by April 2019.

There was a brief discussion with AusNet Services regarding solutions to the harmonics issue, including; the use of capacitor banks at in zone substations, installation of harmonic filters, and the installation of a second arc suppression coil on the neutral (tuned to the 5<sup>th</sup> harmonic). AusNet Services noted in the discussion that depending on the source of the harmonic distortion, a reduction in the harmonic current at the zone substation busbar may not necessarily reduce the harmonic current at the fault site.

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

### **3.3. Discussion**

No further discussion was held other than that recorded with the presentations above.

## **4. HV customers – DELWP update of T2 & T3 customer issues**

### **4.1. DELWP presentation**

There was no slide presentation provided by DELWP.

DELWP provided a brief outline of their engagement with HV customers and the High voltage Customer Assistance Program (HCAP).

DELWP advised that there has been a lot of communications between DELWP and the privately owned HV customers affected by the REFCL deployment. DELWP expressed the view that it was not clear to them that all of the HV customers were across the safety community benefits which flow from the introduction of REFCLs. DELWP have identified the need for them to better engage with the community and agencies (including the CFA) on the benefits of the REFCL program.

A number of HV customers have lodged applications for HCAP funding, well before the February 20, 2019 closing date. DELWP advised that there were HV customers suggesting costs of \$10M - \$20M to become REFCL ready and that there were a number of large private HV customers who appeared to be happy to comply with their responsibilities in the EDC.

DELWP further advised that the Australian Industry Group (AIG) had sent a letter to government, dated December 3, 2018, registering a number of concerns on behalf of a number of their members required to become REFCL ready. These concerns including potential shutdowns of HV customer facility were they not to be REFCL ready in a time specified by the electrical distributor. In response DELWP advised that a number of strategies had been proposed to address the concerns expressed in the AIG letter, including government requesting electrical distributors review their timelines around compliance testing and other options that government could support to give HV customers more time to become REFCL ready. DELWP acknowledged that altering the legislated REFCL delivery timelines would be difficult for government.

It was suggested by DELWP that the extent of the private HV customer funding requirements would become clearer following the closing date for HCAP applications on February 20, 2019. Other HV customer financial assistance initiatives were being considered including; a review of the tax implications associated with HCAP capital grants (which might have the effect of increasing the monies available to the HV customers through the HCAP), and a loan scheme for HV customers.

The Chair offered DELWP the technical assistance of PBSC Members who have a depth of relevant knowledge which might be able to contribute high level interpretative judgments. DELWP then discussed the formation of the HCAP Technical Assessment Panel.

With the HCAP only applying to private HV customers, DELWP has offered assistance to the industry in navigating government processes associated with those government owned HV customers who need to become REFCL ready.

DELWP offered to provide an update on the status of HCAP/HV customer matters "out of session" post the February 20, 2019 grant application closing date.

DELWP also agreed to have HCAP/HV customer issues and progress as a standing PBSC agenda item for the next few meetings, and to provide graphical

representation of status, in a manner similar to that provided by the electricity distributors.

**Action:** DELWP to provide an update on the status of HCAP/HV customer matters “out of session” post the February 20, 2019 grant application closing date.

**Action:** DELWP to provide to the next two PBSC meetings presentations, including graphical representations, of HCAP/HV customer issues and processes.

## 5. Discussion

### 5.1. Committee Member raised matters

None.

### 5.2. Other matters

The Chair requested that should the electricity distributors contemplate an application to ESV for either exemptions or time extension that they do so as soon as is possible to allow ESV to progress their view on those requests.

The Chair confirmed that the PBSC has the capacity of considering any request from the DoES between meetings to allow committee advice to be settled at or prior to the next PBSC scheduled meeting.

## 6. Meetings

### 6.1. Next meeting

A need was identified to move the date of the next committee meeting. Alternate dates of either the April 03, 2019 or April 04, 2019 were suggested, subject to attendee’s availability. The Secretariat will coordinate the settling of the revised date as soon as possible.

**Action:** Secretariat to canvas meeting attendees to determine the date of the next PBSC meeting. Secretariat to send a meeting invitation to meeting attendees with the new settled date.

#### POST MEETING NOTE:

By agreement post meeting the next PBSC meeting has now scheduled for April 04, 2019, starting at 10:00am and finish at 12:30pm, preceded by a “meet and greet” at 9:30 am.

**Action:** Secretariat to forward a PBSC committee meeting invitation for the April 04, 2019 meeting to all meeting attendees.

### 6.2. Subsequent meetings

Confirmation was given that subsequent meetings are scheduled for;  
June 11, 2019, September 10, 2019 and December 10, 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

**Note:** There was no slide presentation provided by DELWP for the HV customer topic.