**MINUTES OF MEETING No. 12**

**Held: Thursday 20 August 2019, at 9:30 am**

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

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| **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 |
| Steven Neave | Observer | General Manager Electricity Networks, CitiPower and Powercor |
| Mike Carter | Observer | General Manager Network Engineering, AusNet Services |
| Andrew Bailey | Observer | REFCL Technical Director, Electricity Networks, CitiPower and Powercor |
| Karen Ellingford | Observer | Senior Manager, Victorian Auditor-General's Office |
| Dallas Mischkulnig | Observer | Director, Performance Audit, Victorian Auditor-General's Office |
| Robert Skene | Secretariat | Senior Technical Advisor, ESV |
| **Apologies:** |  |  |
| Gary Towns | Member | Director, Facio Pty Ltd |

**Agenda item Discussed:**

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| 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 – Update on impact on the REFCL program timeline | Secretariat |
| 5 | Discussion | David Harris |
| 6 | Future meetings | David Harris |

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

**Representatives of the Victorian Auditor General’s Office**

(Final 30 minutes only)**.**

1. **Committee Discussion.** 
   1. Register of Engagements – Committee Members.

Steve MacDonald advised the Committee of his appointment to the board of the Electricity Engineers Association of NZ (EEANZ)

No further engagements by members were raised.

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| **Action:** Secretariat to update Steve MacDonald’s details in Committee’s Charter to reflect the appointment to the board of EEANZ. |

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

* 1. PBSC Charter – Update

There was a discussion about the Committee’s Charter.

The Director of Energy Safety (DoES) confirmed that there were no further changes envisaged at this time to expand remit of the Committee to provide an annual REFCL implementation report, as recommended by Dir. Grimes in this recent report. The DoES advised that any recommendation to expand the Committee’s mandate regarding the preparation of implementation reports was likely to come from the energy inter-departmental Committee, which the government has established.

There was a brief discussion regarding Members of the Committee potentially accompanying the DoES to rural Victoria to discuss the function of the Committee.

There was also a brief conversation regarding the type of analysis which the Committee could undertake following the formation of the ESV commission. In the light of the trending down of the rates of fire starts on the worst of worst days, one such matter could be a retrospective on the effectiveness of the fire reduction benefits of the changes implemented since the VBRC recommendations.

* 1. VAGO performance audit

The Chair advised Members that two members of the Auditor-General’s Office (VAGO) had been invited to observe today’s meeting.

There was a brief conversation regarding VAGO’s performance audit relating to the government’s planning for reducing bushfire risks.

* 1. Other business

There was a brief conversation regarding governance of ESV going forward with the transformation of ESV into a Commission.

Observers fromVAGO joined the meeting

Brief introductions were performed and the functioning of the Committee was discussed.

The Observers from VAGO provided a brief overview of their current audit of the effectiveness of the government’s governance structures associated with bushfire risk reduction strategies.

The VAGO observers discussed the establishment of a reference panel established to assist VAGO form a view on the effectiveness of the government’s governance structures associated with their bushfire risk reduction strategies.

* 1. REFCL Program – Update

The Secretariat advised Members there were no further requests for advice from the DoES at this time.

The Secretariat provided Members with a brief update on the following matters:

* ESV’s strategy for assessment of REFCL Coverage Areas exemption applications. The contents of the strategy were mentioned.
* Powercor’s paper “REFCL Program – Resolution of Conditional Acceptance”.

Mention was made of the contents of a draft paper submitted to ESV by Powercor. The Committee was informed that this paper had been submitted in association with one of the conditions ESV had imposed when the initial REFCL compliance tests granting conditional acceptance.

Members were advised ESV has not at this time received an equivalent submission from AusNet Services. The Powercor draft paper has not yet been distributed to Members.

* AusNet Services time extension for Kinglake and Woori Yallock.

Mention of the content of the plan provided to Members prior to the meeting. Members were advised that this plan is currently being evaluated by ESV with no request for advice from the Committee being sought at this time.

* MTM trains.

Mention of MTM trains comprehensive plans and timelines have been provided to ESV on the isolation of their facilities from REFCL networks having.

MTM confirmed that they will not be REFCL Ready in time for certain of AusNet Service’s Tranche 2 REFCL deployments.

MTM further advised that DELWP planning activities will be one of the determiners of their REFCL readiness date.

* Powercor’s Bannockburn zone substation.

Status of ESV’s assessment of the exemption application was mentioned.

* Powercor’s Waurn Ponds/Torquay zone substation.

Mention of ESV’s expectation that an exemption would be required if parts on the Waurn Ponds legislated area were transferred to a new zone substation.

* Kalkallo and Coolaroo zone substations.

Update from a joint AER/AusNet/Jemena/DELWP/ESV meeting on AusNet Services Tranche 3 contingent project application.

AER has requested the government provide their position on the potential for granting exemption applications to facilitate some of the proposed options.

* REFCL operating modes.

There is an outstanding action item for the PBSC Secretariat to convene a meeting for AusNet to discuss in detail the logic contained in their paper titled “Background to REFCL Operating Modes”.

The Secretariat advised that this meeting has been held in abeyance as the update of the REFCL operating modes is a matter currently being progressed by ESV in association with the update of AusNet Services and Powercor Bushfire Mitigation Plans (BFMP). It is expected that REFCL operating modes will be discussed with the Members as part of ESV accepting the businesses BFMPs.

* 1. Other business

Wind farms.

There was a brief discussion regarding the extensive non REFCL protected networks being constructed in conjunction with wind farm developments.

Members highlighted a potential for elevated risks of fire starts from these networks as many are not REFCL or ACR protected networks and are located in some of the high fire risk areas of Victoria. These issues will need to be considered further by ESV.

It was noted that many of these wind farm networks operate at voltages higher than the current 22kV REFCL networks, and as such are not included in the REFCL related legislation or covered by the Electricity Distribution Code.

It was further noted that the current legislation does not directly require Specified Operators, like wind farms, to deploy the REFCL technology, but does require operators to produce both Bushfire Mitigation Plans and Electric Line Clearance Plans.

**Part B - Committee Members and Observers.**

1. **Introduction.**
   1. **Attendance and apologies.**

The Observers from VAGO were introduced to the other observers who joined the meeting.

The Chair advised that he had received an apology from the Member Gary Towns.

The Secretariat noted the receipt of meeting invitation cancellations from both of the DELWP Observers, Georgie Foster and Lorna Mathieson. There had been no approach for another representative from DELWP Energy Safety to attend this meeting.

* 1. **Meeting agenda.**

The meeting agenda included a list of exemption and time extension requests on advice from the electrical distributors.

Powercor have advised that it was not their intension to apply for the exemption listed for Waurn Ponds in the meeting agenda. Powercor advised that it was their view that an exemption was not required as all of the polyphase lines moved from Waurn Ponds would be REFCL protected in the new Torquay zone substation.

* 1. **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 minutes, as revised at this meeting, as a record of the meeting held on 11 June 2019.

**Committee decision:** Passed without dissent.

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| **Action:** Secretariat to post the minutes of the 11 June 2019 PBSC meeting on the ESV PBSC web page. |

* 1. **Actions from previous meetings.**

**Actions from the last meeting.**

| **Meeting date** | **Matter** | **Action** | **Status** |
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| 11/06/2019 | **2.2** Previous meeting minutes | Secretariat to post the minutes of the December meeting on the ESV PBSC web page. | Adjusted minutes have been emailed to Members & Observers. |
| Settled minutes to be posted following approval at this meeting. |
|  | **2.3** Actions from previous meetings | PBSC Secretariat to convene a meeting for AusNet to discuss in detail the logic contained in their paper titled “Background to REFCL operating modes”. | Open.  Note 1 |
| **Outcome legend** | | | * Open |
| * Closed |

Note 1

The Chair requested the Secretariat convene a meeting for AusNet Services to discuss in detail the logic contained in their paper titled “Background to REFCL operating modes”. The Chair further requested that invitations be extended to Tony Marxsen, Gary Towns, and the Secretariat as representatives of the PBSC and suggested that ESV (Ian Burgwin or his representatives) be invited to attend this meeting.

The Secretariat advised that this meeting has been held in abeyance as ESV is currently in dialogue with AusNet Services and Powercor on the updating their Bushfire Mitigation Plans (BFMP) to reflect their intended REFCL operating modes. It is expected that the matter will be discussed with the Members as part of ESV accepting the businesses BFMPs.

**Outstanding actions from previous meetings.**

**No outstanding actions from previous meetings.**

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

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

1. **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 of the presentations not undertaken at this meeting and discussion limited to specific items.

* 1. **Powercor.**

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

* + 1. **REFCL Timetable.**

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

Powercor drew Member’s attention to the shading of the Gisborne zone substation depicting that it was undergoing annual compliance testing.

**Tranche 3**

Powercor confirmed their previous advice to Members of their intention to construct a new zone substation at Bannockburn in the Geelong area and exclude the Corio (one point) and Geelong (four points) zone substations from REFCL deployment.

The intention to build an additional zone substation at Torquay was also contained in the slide presented. Powercor advised that it was the intention to transfer some of the feeders from Waurn Ponds (four points) to the new Torquay zone substation. As a REFCL would be deployed into both the Waurn Ponds and Torquay zone substation, Powercor expressed the view that they did not believe that the moving feeders away from Waurn Ponds required any exemptions from the legislation

There was a brief conversation regarding altering the REFCL coverage areas specified in legislation and the creation of new zone substations within the original REFCL footprint. The Chair requested that ESV seek clarity from DELWP on the administrative procedures associated with the creation of new and/or revision to zone substations within the original REFCL footprint. As this matter has been raised with DELWP at previously Committee meetings, the Chair requested that the matter be escalated within the department if a response is not received in a timely manner.

* + 1. **REFCL Tranche 2 deployment timetable.**

Powercor presented a slide detailing the deployment times for each of the Tranche 2 zone substations.

Powercor drew Members’ attention to network reliability problems being experienced with the REFCL placed into service at the Colac zone substation as a result of the in compatibility of the auto loop schemes and REFCLs. Powercor advised that ESV compliance testing of this zone substation was planned for end of October/early November 2019.

The commissioning of two further zone substations were said to be planned for 2019. Powercor confirmed that those stations were to be available over the next fire season, subject to the HV customer being REFCL ready. Powercor undertook to update their presentation to clarify the number of zone substations to be commissioned in 2019.

Powercor provided the Members with insights of the work they have been undertaking with HV customers to assist them to become REFCL ready. There was conversation as to the steps that might be taken if zone substations were commissioned/available yet HV customers were not REFCL ready. The risks were discussed of placing a commissioned REFCL into service immediately before an extreme weather event.

* + 1. **REFCL performance update.**

Powercor reported on the implementation of the latest version of the GFN software.

Powercor advised the Members that a paper titled “REFCL Program – Resolution of Conditional Acceptance report” had been submitted to ESV for comment. Powercor discussed the content of the report which discusses the progress made in resolving some of the anomalous results seen at the zone substation initial compliance testing.

Powercor advised that annual compliance testing for all of their Tranche 1 zone substations had commenced utilising revised GFN software and that testing was expected to be completed before the end of the year. This testing was said to be a full repeat of the initial compliance tests undertaken last year.

There was discussion on future REFCL zone substation testing as the networks change.

* + 1. **REFCL general update.**

Powercor presented a slide containing general matters associated with their REFCL deployment program. Powercor confirmed that in they intended to submit their contingent project application for the Tranche 3 REFCL deployment to the AER for funding in the near future.

Powercor provided further information regarding the Waurn Ponds zone substation, explaining that the size of the Waurn Ponds network had grown substantially. As such Powercor confirmed their intention to construct a new REFCL protected zone substation to be called Torquay and transfer a number of the Waurn Ponds feeders to this new zone substation.

Powercor confirmed that assessments associated with shifting the deployment of REFCLs from zone substations specified in legislation to new zone substations were based on bushfire risk. Powercor offered to take on notice the question of non-fire public safety risk into their assessments for relocating REFCL deployment.

There was a brief discussion on the exemption process and legislation associated with the creation of new zone substations, noting that this type of exemption had not previously been dealt with by government.

Powercor drew Members’ attention to the detrimental impact on reliability due to the incompatibility of traditional automated switching programs and REFCL networks. Powercor further advised that work was progressing in the development and introduction of new devices to determine the location of a fault on a feeder in a REFCL network and regain some of the lost reliability.

* + 1. **SWER ACR status.**

Powercor presented a slide showing they were on track to deliver the remaining 278 ACR rollout as committed to ESV. Powercor have identified access issues associated with the current extremely wet landscape as a potential impediment to the agreed early deployment of these ACRs. Powercor further advised that they were putting in place strategies to deal with impediments to the delivery program.

* + 1. **Powerline Replacement – Electric Line Construction Areas.**

Powercor have identified access issues associated with the current extremely wet landscape as a potential impediment to the delivery of the last government funded powerline replacement program.

Powercor advised that they continue to expect to complete the government funded powerline replacement by the end of November 2019.

Powercor also advised that they remain committed to the replacement of a further 100km of overhead line by the end of 2020 in the Electric Line Construction areas.

* + 1. **Actions.**

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| **Action:** Ian Burgwin to seek clarity on the administration associated with the creation of new and revised zone substations within the original REFCL footprint. |

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| **Action:** Powercor to update their presentation regarding the number of zone substations to be commissioned in 2019. |

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| **Action:**  Copy of Powercor’s updated presentation to be distributed to Members and made available on the ESV PBSC web page. |

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| **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 Powerline Replacement Fund and as a result of other obligations). |

* 1. **AusNet Services.**

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

* + 1. **REFCL Program Overview.**

AusNet Services provided an update on their REFCL deployment program confirming that they expect to have nine zone substations available for this summer.

AusNet Services confirmed their previous advice to Members of the intention transfer the current underground residential estates from Ferntree Gully (FGY) to a new non REFCL zone substation to be known as Rowville (RVE). AusNet Services advised the Members that they now believed that this transfer would not require any legislative change for FGY as the significant feeders would remain REFCL protected.

AusNet further confirmed their previous advice to Members of their intention to build a new REFCL protected zone substation adjacent to the Kalkallo (KLO) zone substation. AusNet Services explained that the high risk feeders from the current KLO would be transferred to this new as yet unnamed zone substation. REFCLs would not be installed at KLO which would continue to supply the largely underground residential customers.

* + 1. **REFCL Tranche 1 Compliance.**

AusNet Services provided an updated slide on actions taken at the Woori Yallock and Kinglake zone substations associated with the time extension they had received from ESV defer the achievement of the required capacity until 1 November 2019.

AusNet Services advised of their intention to install capacitor banks in early 2020 to solve the adverse effect of harmonics on achieving the required capacity.

AusNet Services tabled a paper and briefed Members on the recent work undertaken to characterize the high network damping on the Kinglake network. There was a conversation regarding this paper and the options being assessed by AusNet Services to resolve the high damping issue.

There was brief discussion on the Kinglake options paper with Members enquiring if options including the installation of shunt reactors and reconductoring the network had been considered.

Members requested AusNet Services consider providing a costed option of partial reconductoring of sections of the Kinglake network so as to reduce the resistance and thus lessen the network damping sufficient to meet the specified capacity.

AusNet Services further advised that they had commenced preparation for the annual testing for commence at their Barnawartha, with the updated version of the GFN software. AusNet Services advised that the updated software had shown discernible improvements compared with last year’s test results.

* + 1. **REFCL Tranche 2 HV Customer Readiness.**

AusNet Services provided an updated slide on the readiness of their HV customers.

**Metro Trains Melbourne**

AusNet advised that they had not received any further advice from Metro Trains Melbourne (MTM) on their REFCL readiness. The adverse impact on the completion dates for the relevant Tranche 2 zone substations was said to remain.

Subsequent to the last Committee meeting DELWP provided Members a brief note explaining why MTM would not be REFCL ready by the AusNet Services requested dates. DELWP advised that MTM’s REFCL compliance program is considerably more difficult than those of other HV customers due to the highly complex nature of its electric networks and to its business need to minimise disruptions to public transport users. This was said to be further complicated due to the extensive network infrastructure works already planned and underway making the scheduling of testing and works even more challenging in the immediate term. AusNet Services provided further insights as to why MTM would not be REFCL ready by the AusNet Services requested dates.

MTM have advised ESV that it is their intention to construct standalone isolating transformers to avoid the need to minimise work on their electrical network and thus minimise the disruptions to customers.

AusNet Services confirmed their pervious advice to Members of their intention to apply for a time extension for zone substations associated with MTM. AusNet Services also advised that the application would be based on advice from MTM that they would not be REFCL ready in time for commissioning and testing of the relevant zone substations. In consideration of the significant public inconvenience AusNet Services confirmed that at this time there was no intention to disconnect supply to MTM to complete the deployment of REFCLs in the relevant zone substations by the date specified in legislation.

There was a brief discussion on the matter. Members expressed the view that any review by the Committee of a time extension application would consider if all things practical had been undertaken by all parties to achieve compliance by the specified date.

**Australian Defence Force**

AusNet Services advised the Members that there has been significant progress in the Australian Defence Force (ADF) in becoming REFCL ready. However at this time AusNet Services advised that the ADF were not able to guarantee that they would be REFCL ready by the date required by AusNet Services.

* + 1. **REFCL Tranche 2 Delivery Roadmap.**

AusNet Services provided a slide depicting the time based Tranche 2 REFCL deployment. The slide records that up to five zone substations may be unable to be tested or placed in service as a result of HV customers not being REFCL ready.

* + 1. **REFCL Tranche 3 update.**

AusNet Services provided a slide relating to their Tranche 3 REFCL deployment program.

AusNet Services advised that they had recently submitted their Tranche 3 contingent project application to the AER for funding. The feedback they had received from the AER was that they were largely comfortable with most of the proposals contained in this submission. Some questions were said to remain regarding the lowest cost options for the Kalkallo (KLO) zone substation. AusNet Services advised that certain of their proposals for KLO may be undertaken as part of their next general price review (EDPR).

* + 1. **ACR Program**

AusNet Services provided a slide on their completed ACR program in their updated presentation. This slide was not discussed during this meeting

* + 1. **Powerline Replacement – Electric Line Construction Areas.**

**Powerline Replacement Fund**

A slide relating to the governments’ Powerline Replacement Fund was presented. AusNet Services advised that these programs were scheduled for completion in November 2019.

**Electric Line Construction Areas**

A slide was presented displaying the change in volumes of bare and insulated powerlines in electric line construction areas between 1 May 2018 and 30 April 2019.

This slide records that approximately 30 km of the bare powerlines have been replaced in electric line construction areas, with a corresponding approximately 36km increase in covered or underground powerline construction. AusNet Services advised that this replacement had been largely the result of the governments’ Powerline Replacement Fund, with a small amount of AusNet Services funded replacement.

This slide also displays the planned changed of bare and insulated powerlines in those areas between 1 May 2019 and 30 April 2020, with a projected replacement of approximately 23 km of bare SWER powerlines and no projected replacement of polyphase bare powerlines.

AusNet Services forecast that by 30 April 2020 that there will have been an overall reduction of 19% the quantity of bare conductors in their Electric Line Construction Areas, largely as a result of the governments’ Powerline Replacement Fund.

This information contained in these slides is understood to have been extracted from the report submitted by AusNet Services to ESV as part of the legislated reporting requirements introduced by amendment to the Electricity Safety Act (section 120P).

* + 1. **Actions.**

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| **Action:** AusNet Services to consider providing costing of the option of partial reconductoring of sections of the Kinglake network to lessen the network damping sufficient to meet the specified capacity. AusNet Services to advise the Secretariat of the AusNet Services decision. |

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| **Standing Action:** AusNet Services’ presentation to include updates on powerline replacement in Electric Line Construction Areas (both as part of the Powerline Replacement Fund and as a result of other obligations) |

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

* 1. **HV customers – DELWP High Voltage Customer Assistance Program (HCAP) update.**

No update on the status of the HCAP program and provision of funding was provided by DELWP.

1. **Discussion.**
   1. Committee Member raised matters.

**GFN versions.**

Members enquired as to software versions in use by the businesses and were advised that Powercor were currently using a later version than AusNet Services.

**Powercor paper** - “REFCL Program – Resolution of Conditional Acceptance report”

Members requested access to a copy of the draft report on anomalous test results for their study.

Powercor undertook to review the status of the draft, provided to ESV for their comment, and determine if the document is suitable to be provided to Members, on the condition the paper was not for publication.

**Presentations.**

The Chair confirmed the Members desire to have the copies of presentations a clear two business days before the meeting, to afford Members the opportunity to digest their content.

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| **Action:** Powercor to review Members’ request for access to a copy of the paper titled “REFCL Program – Resolution of Conditional Acceptance report”, and advise the Secretariat of their decision. |

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| **Action:** If approved by Powercor,Secretariat to provide a copy of Powercor’s the “REFCL Program – Resolution of Conditional Acceptance report” to Members on a confidential basis. |

* 1. Other matters.

The Secretariat confirmed that the AusNet Services papers on Woori Yallock Kinglake distributed to Members for discussion at today’s meeting are not for publication, as stated in the accompanying email transmission. These papers will not be posted on the PBSC web portal.

1. **Meetings.**
   1. **Next meeting.**

The next meeting is scheduled for 10 December 2019, starting at 10:00 am and finish at 1:00pm, preceded by a “meet and greet” at 9:30 am.

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| **Action:**  PBSC Secretariat to send out a “10 December 2019 placeholder” meeting invitation for the next meeting. |

* 1. **Subsequent meetings.**

Confirmation was given that subsequent meetings are scheduled for;

10 March 2020, 9 June 2020 and 08 September 2020.

The Chair thanked the presenters for interesting and informative papers.

The Chair then closed the meeting.

**Meeting closed at 12:30 pm.**

**List of Attachments:**

1. Powercor presentation,
2. AusNet Services presentation