

PBSC – Meeting No. 11

Meeting minutes

Details

| | |
|-------------|--------------------------------------|
| Date & time | Thursday, 11 June 2019 at 10:00am |
| Location | Level 5, 4 Riverside Quay, Southbank |

Attendance

| | | | |
|-----------|-----------------|-------------|---|
| Attendees | David Harris | Member | Chairman |
| | Gaye Francis | Member | Director, R2A Pty Ltd |
| | Steve McDonald | 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 |
| | 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 & Network Strategy, AusNet Services |
| | Mike Carter | Observer | General Manager Network Engineering, AusNet Services |
| | Steven Neave | Observer | General Manager Electricity Networks, CitiPower and Powercor |
| | Andrew Bailey | Observer | REFCL Technical Director, Electricity Networks, CitiPower Powercor |
| | Lorna Mathieson | Observer | Director Energy Programs, Energy Demand, Programs and Safety, Environment and Climate Change, DELWP |
| | Robert Skene | Secretariat | Senior Technical Advisor, ESV |
| Apologies | | | |

Agenda items and actions

| Item | Subject and discussion | Action & lead |
|--------|---|--------------------------|
| 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 High Voltage Customer Assistance Program (HCAP) update | Lorna Mathieson |
| 5 | Discussion | David Harris |
| 6 | Future meetings | David Harris |

Part A - Committee Members, the Secretariat, the Director of Energy Safety, and Director Energy Programs, Energy Demand, Programs and Safety, Environment and Climate Change, DELWP

Last 10 minutes only.

Committee Discussion

1.1. Register of Engagements – Committee Members.

No further engagements by members were raised.

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

1.2. REFCL Program - Exemption Advice to DoES – Chair.

The Chair commended the committee on the comprehensive nature of the advice provided on the AusNet Services request for an extension to achieve compliance at the WYK and KLK zone substations.

The DoES confirmed that a letter has been sent to the Minister in relation to AusNet Services' request for an extension in time to comply with section 120M (1)(a) at WYK and KLK. A complete copy of the committee's advice was said to have been attached to the letter to the Minister.

The Secretariat informed the committee that ESV had received a formal request from Powercor to be exempt from the installation of REFCLs in the Corio and Geelong zone substations, through the construction of a new zone substation at Bannockburn. It was further advised that the application was currently being evaluated by the electrical infrastructure personnel in ESV and the request has not been referred to the committee for advice at this time.

1.3. Network Harmonics- Secretariat.

ESV's position on exemptions associated with harmonics was shared with the committee.

There was a brief conversation on the content contained in the recent committee's advice to the DoES and further work to be undertaken to have an informed view on the matter of network harmonics. To assist in its understanding on network harmonics, the committee expressed an interest in obtaining a copy of the Mitton Electronet paper commissioned by AusNet Services and referred to in their application for a time extension. The committee Chair undertook to seek a copy of the paper from AusNet Services.

Action: The Chair to request a copy of the report titled "AusNet REFCL Commissioning Program – Harmonics Modeling Investigation" produced by Mitton Electronet.

1.4. Other business

VAGO performance audit

The DoES advised that VAGO has advised that they intend to conduct a performance audit relating to planning for reducing bushfire risks. It was said that the audit was to assess whether responsible agencies are effectively working together to reduce Victoria's bushfire risk. VAGO have identified the Powerline Bushfire Safety Program, operating within DELWP, as a part of the government's program to reduce bushfire risk. The DoES advised that in conducting the audit it was VAGO's intention to seek views from the electricity distribution businesses (as stakeholders and key delivery partners), ESV and members of the PBSC to understand more about the challenges associated with the deployment of REFCLs in tranches one and two and in the planning for tranche three.

REFCL zone substations

The committee's approach regarding the assessment of all of the REFCL benefits when exempting their installation in specified zone substations was discussed.

The committee expressed the view that such applications required the committee to take a holistic view of the current prescriptive REFCL legislation, the methodology for selecting the legislated zone substations, the specified required capacity and the safety benefits that were expected to flow.

Committee meeting minutes

There was a general conversation regarding the nature and form of the committee meeting minutes.

The committee reaffirmed that the purpose of the meeting minutes was to capture, as a true record the proceedings of the committee, the information presented by stakeholders and to provide a general commentary on that information. The committee also confirmed that the meeting minutes were not to be seen as a transcript of the proceedings of the meeting. The committee further affirmed that the recording of stakeholder information presented to the committee was not to be taken as an endorsement by the committee of the content of that information.

DELWP

Director Energy Programs, Energy Demand, Programs and Safety, Environment and Climate Change, DELWP joined the meeting.

DELWP provided commentary on the nature of the committee meetings minutes.

The Chair advised DELWP of the committee's earlier conversation regarding minutes of committee meetings. The Chair further advised that all care is taken to ensure that unless otherwise stated, that the information recorded is as presented to the committee, and affirmed that diligence in this matter would continue.

The Chair urged that all Members and Observers who receive the circulated draft copies of the meeting minutes provide input prior to the time of their endorsement at the subsequent committee meeting.

There was a discussion on three items in the minutes of the 4 April 2019 meeting, and it was agreed that minor changes be made to some of the wording. These were subsequently discussed in the meeting as a whole (refer to section 2.2).

Part B - Committee Members and Observers

2. Introduction

2.1. Attendance and apologies

The Chair noted that DELWP observer **Georgie Foster** was not in attendance at this meeting, and there had been no approach for another representative from DELWP Energy Safety/Policy to attend this meeting.

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 Director Energy Programs, Energy Demand, Programs and Safety, Environment and Climate Change, DELWP sought clarification regarding certain references to DELWP in the draft minutes of the 4 April 2019 meeting. The items and the suggested minor alterations were specifically discussed with minor alterations made to the minutes. The Chair requested Members approve the minutes, as revised at this meeting, as a record of the meeting held on 4 April 2019.

Committee decision: Passed without dissent.

Action: Secretariat to post the minutes of the 4 April 2019 PBSC meeting on the ESV PBSC web page.

2.3. Actions from previous meetings

Actions from the last meeting

| Meeting date | Matter | Action | Status |
|-----------------------|------------------------------------|---|---|
| 04/04/2019 | 1.1 Register of Engagements | Tony Marxsen to provide an updated <i>biography for incorporation into the PBSC Charter</i> . | Updated biography received |
| | 2.2 Committee Charter | Secretariat to include updated bibliographies in the PBSC Charter and publish the Charter on the committees ESV web page. | Charter updated with revised biography. Revised Charter to be reformatted and then published on the committees ESV web page. |
| | 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 |
| | 3.1 Powercor presentation | Powercor to update their Power Point presentation prior to publication on the ESV PBSC web page, including further information regarding the permanent fault on the EHK031 (25 January 2019). | Update of Powercor Power Point presentation received 4 April 2019. Updated Powercor's Power Point presentation emailed to Members 5 April 2019. Copy of the updated presentation posted on the ESV PBSC web page. |
| | 4.1 DELWP presentation | DELWP to provide to provide a copy of their restructure to the committee Secretariat as soon as it is publically available | Open |
| | | PBSC Secretariat to distribute to Members a copy of their restructure to the committee on receipt from DELWP | Open – pending the receipt of a copy of restructure. |
| 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.

Outstanding actions from previous meetings

No outstanding actions from previous meetings

Action: PBSC Secretariat to convene a meeting for AusNet to discuss in detail the logic contained in their paper titled "Background to REFCL operating modes".

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.

It was agreed to alter the agenda sequence to allow AusNet Services to give their presentation before Powercor.

3.1. AusNet Services

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

3.1.1 REFCL Program Overview

AusNet Services provided an updated on their REFCL deployment program confirming that the Wonthaggi zone substation had been moved from Tranche 1 into Tranche 2 and the Mansfield zone substation from Tranche 3 to Tranche 2.

AusNet Services advised that they were considering the construction of two new zone substations; one in Tranche 2 designated Rowville (RVE) and adjacent to the Ferntree Gully zone substation, and another Tranche 3 as yet unnamed adjacent to the Kalkallo zone substation.

AusNet Services advised that the new zone substations were to be constructed to service the underground networks currently attached to the Ferntree Gully and Kalkallo zone substations. As neither of the two new zone substations would be REFCL protected, AusNet Services advised that it was intended that any bare overhead network connected to those substations would be covered/insulated. AusNet Services recognised the need to apply for exemptions from legislation for both; the construction of new zone substations within the REFCL geographic areas, as well as the isolation of parts of the underground network from the zone substations specified in legislation.

3.1.2. REFCL Tranche 2 HV Customer Readiness

AusNet Services confirmed their view that a number of HV customers were unlikely to meet the requested dates to become REFCL ready.

AusNet Services provided a slide identifying both Metro Trains (MTM) and the Australian Defence Force (ADF) as two of these HV customers unlikely to meet the requested dates to be REFCL ready and provided details of their connection points to the AusNet Services network, a summary, current status, and next steps.

MTM

With respect to MTM, AusNet Services indicated their intention to apply for a time extension from 1 May 2021 to 1 November 2022 to allow MTM to become REFCL ready, and to provide time for commissioning and testing of the relevant zone substations. The committee observed that zone substations servicing MTM covered some of the highest loss consequence areas in the AusNet Services network and that this would be the first application for a time extension as a result of a HV customer not being REFCL ready.

The committee advised that were it requested to provide advice to the DoES regarding an application for a time extension in regard to MTM, it was likely to seek records from both MTM and AusNet Services to form a view that all reasonable options to accelerate the work had been explored and that there were now no other options available to meet the legislated REFCL deployment times.

The committee suggested that AusNet Services time extension applications which cover a summer fire season include the risk mitigation measures adopted to minimise potential fire starts during this time.

DELWP provided some insights as to why MTM would not be REFCL ready by the AusNet Services requested dates. DELWP agreed to provide the committee with an explanatory note detailing the reasons why MTM will not be REFCL ready by the AusNet Services requested dates. The Chair requested that DELWP confirm with AusNet Services any data in the note, which relates to AusNet Services, prior to providing that advice to the committee.

ADF

ADF were said to have provided written advice to AusNet Services (5 June 2019) that contracts relating to works to become REFCL ready have not been signed and that ADF have advised that they do not currently have a project delivery schedule in place for the required works for any of their four sites supplied for the Wodonga Terminal Station (WOTS). The Advice from the ADF is that they were considering seeking a waiver or dispensation from ESV. AusNet Services expressed the view that there was still time for the ADF to complete the required works by the requested date of 30 June 2020.

There was a brief discussion about the nature of the request from the ADF for ESV to grant an exemption to the ADF for the risks associated with a failure of their installation resulting from REFCL operation and in turn to the AusNet Services WOTS network (cross country faults).

AusNet Services stated that they intended to write to the ADF setting out the consequences were they not to be REFCL ready by the required date. AusNet Services agreed to provide a copy of the letter from the ADF dated 5 June 2019 to ESV.

MW

AusNet Services informed the committee that Melbourne Water (MW) had now confirmed that they were undertaking isolation works to become REFCL ready. AusNet Services further advised that they understood that MW planned to install isolators at their point of connection to the AusNet Services network which would be set to operate to disconnect the installation when incoming network overvoltage was detected. AusNet Services additionally advised that they understood that there would be no at risk bare network beyond the point of isolation.

Action: DELWP to provide the committee with an explanatory note outlining the reasons why MTM will not be REFCL ready by the AusNet Services requested dates.

Action: AusNet Services to provide ESV with a copy of the letter from the ADF dated 5 June 2019.

3.1.3. REFCL Tranche 2 exemption application

AusNet Services provided a slide regarding the treatment of the Ferntree Gully (FGY) zone substation underground residential estates and the proposed construction of the new Rowville terminal substation (RVE). This slide was not discussed during this meeting.

3.1.4. REFCL Tranche 2 Delivery Roadmap

AusNet Services provided a slide depicting the time based Tranche 2 REFCL deployment. This slide was not discussed during at this meeting.

3.1.5. REFCL Tranche 1 Compliance status

A slide showing an overview of AusNet Services current compliance status was provided to the committee. This slide was not discussed during at this meeting.

3.1.6. REFCL Tranche 1 Conditional Compliance – conditions by zone substation

A slide showing an overview of the conditions placed by ESV when granting conditional compliance for six of AusNet Services Tranche 1 zone substations was provided to the committee. This slide was not discussed during at this meeting.

3.1.7. REFCL Tranche 1 Conditional Compliance – technical issues

A slide listing five REFCL technical performance issues, and the current status of each of those issues, was provided by AusNet Services to the committee.

Inconsistent Admittance Values

AusNet Service advised that Swedish Neutral had provided an updated software version to AusNet Services and Powercor to address this matter. Powercor advised they had deployed the software at Eaglehawk and reported promising initial results reducing the size of the errors, but that there were still some inconsistencies in operation. At the time of this meeting AusNet Services advised they were yet to trial the software.

Inverter Tripping

AusNet Services advised that they had made modifications to all of their REFCL zone substations and reported that there have been no inadvertent inverter trips following those modifications.

High Network Damping

AusNet Services advised that they are still investigating and modeling this matter present in the Kinglake zone substation (KLK). There was a brief conversation regarding high earthing resistance at the zone substation and the effect it may have on network damping. AusNet Services advised that the REFCL at KLK was still delivering a better bushfire performance than the traditional protection system, notwithstanding the presence of high network damping.

There was a brief discussion on the effect of high network damping on REFCL protected networks.

AusNet Services offered to provide the committee with a more detailed explanation of the effect earthing and other network solutions have to achieve compliance in light of the REFCL performance at KLK.

Action: AusNet Services to provide the committee with a more detailed explanation of the effect earthing and other network solutions have to achieve compliance in the KLK REFCL protected network.

Calibration

The AusNet Services presentation included the status of the calibration matter. There was no committee discussion on this matter.

Network Harmonics

AusNet Services provided a presentation on network harmonics and high impedance faults with data extracted from the AusNet Services compliance tests where the REFCL was operating.

There was an extensive conversation regarding the effect of the harmonic (non-fundamental) current on achieving the required capacity. AusNet Services suggested that as harmonic current was minor in comparison to the fundamental current that it could be discounted. AusNet Services recognised that this would require a technical exemption from the legislation.

Discussion

The electrical distributors raised the matter of reviewing the legislative requirements in cases where they concluded the cost of compliance was disproportionate to the benefit.

There was an extensive conversation on the matter.

The committee offered the view that, prior to litigating the merits of a legislative requirement, the appropriate course of action for network owners was to determine, and cost, the available engineering solutions. The committee expressed its view that in providing advice to the DoES on exemptions to legislative requirement that cost to the community was an important consideration, so as not to unnecessarily burden the Victorian community. However the committee reaffirmed their view that the consideration of cost must follow the full assessment of all of the viable engineering options.

The DoES confirmed that governments always have the opportunity to review what has been put into law, and clearly economics is always a part of such a review, but suggested that the cases raised in the committee had not progressed to a cost consideration. The DoES confirmed that ESV had a statutory obligation to administer the legislation, some of which is prescriptive. The matter of “as far as practicable” has a much more nuanced meaning and does not actually mean doing a cost benefit analysis at the initial stages. It requires all practical solutions to be identified for the issue and then in the circumstances what is considered reasonable. Accordingly when something has gone wrong the question of probability is less relevant and the question moves to was everything that was reasonably practicable done to remove the consequence in the circumstances? ESV is desirous to be in a position where it can confirm that everything has been done which was practicable, rather than say at an early stage that for financial reasons it is not worth doing.

The committee sought advice from AusNet Services as to whether there were any technical reasons why harmonics could not be reduced at the WYK and KLK zone substations. AusNet Services identified space limitations to install an additional capacitor bank or harmonic filter and a possible need to replace the associated switchboard at WYK, but were not in a position at this time to provide costings of these options to the committee.

There was also a conversation regarding why legislation specified that the measurement of REFCL performance was to be made at the substation busbar as distinct from another part of the network. The committee advised that measurement at the substation busbar had been selected as a single unambiguous measurement location present in every network where the performance of the REFCL’s capacity to collapse the network voltage as required could be measured.

For clarity the committee articulated the separate purposes of the voltage collapse and energy components of the legislated required capacity. The committee explained that to limit the risk of a flashover with consequent recommencement of earth current flow, the voltage at a fault site was required to be less than 750 volts. For reliability of measurement and in recognition of the voltage drop along a conductor caused by customer load current, a voltage limit of 250 volts measured at the zone substation had been set. Whereas the I²T value is a measurement of the energy discharged following a recommencement of earth current flow at a fault site.

As such the 250 volt limit is set to confirm that the REFCL can perform as required to minimise fire starts, and that consideration given to the level of a harmonic component of the energy measurement (I²T) is not relevant.

There was a substantial conversation regarding testing to prove capability (at the substation busbar) versus how a network operator may choose to setup and operate a REFCL to minimise fire starts on their network.

3.1.8. REFCL Tranche 3 update

AusNet Services provided a slide relating to their Tranche 3 REFCL deployment program. This slide was not discussed during at this meeting.

3.1.9. ACR Program

AusNet Service agreed to provide a slide on their completed ACR program in their updated presentation.

3.1.10. Powerline Replacement – Electric Line Construction Areas

AusNet Services advised the meeting that they had completed all of the overhead powerline replacement requirements through the governments' Powerline Replacement Program. DELWP's observer confirmed that this was their understanding.

AusNet Services committed to provide the committee with the quantum of that replacement and amounts replaced through the regulatory requirements pertaining to overhead works in electric line construction areas.

Action: AusNet Services to update their Power Point presentation to include the quantum of powerline replaced in electric line construction areas and the results of their ACR program.

3.1.11. Actions

Action: DELWP to provide the committee with an explanatory note on the reasons why MTM will not be REFCL ready by the AusNet Services requested dates.

Action: AusNet Services to provide a copy to ESV of the letter from the ADF dated 5 June 2019.

Action: AusNet Services to provide a more detailed explanation of the effect earthing and other network solutions have to achieve compliance in the KLK REFCL protected network.

Action: AusNet Services to update their Power Point presentation to include the quantum of powerline replaced in electric line construction areas and the results of their ACR program.

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

3.2. Powercor

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

3.2.1. REFCL Timetable

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

Tranche 2

As advised at the previous committee meetings, the slide presented lists the Colac zone substation in the Tranche 2 grouping and shows the zone substation as "In Service".

Tranche 3

As also advised at previous committee meetings, the slide signals the intended changes 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 slide presented also shows the construction of an additional zone substation at Torquay, in addition to the specified zone substation at Waurin Ponds (four points).

This slide was not discussed at this meeting.

3.2.2. REFCL Tranche 2 deployment timetable

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

Powercor advised that Charlton zone substation would be commissioned and available for days of total fire ban (TFB) in the next fire season, by isolating a HV customer on TFB days if necessary.

3.2.3. REFCL performance update

Powercor included in their presentation a copy of the current status of the four performance issues being experienced in the REFCL deployment program.

In view of the extensive discussion during the AusNet Services presentation regarding these issues (see 3.1.7 above), this slide was not discussed further at this meeting.

3.2.4. REFCL general update

Powercor presented a slide containing general matters associated with their REFCL deployment program. There was a brief discussion on the material presented.

Powercor to provide an update of their presentation for publication, clarifying certain matters.

3.2.5. SWER ACR status

Powercor presented a slide showing they were on track to deliver the remaining 312 ACR rollout as committed to ESV.

This slide was not discussed at this meeting.

3.2.6. Powerline Replacement – Electric Line Construction Areas

Powercor advised that they continue to expect to replace a total of 335km of overhead powerline through the governments' Powerline Replacement Program.

Powercor also advised that they continue to intend to replace a further 100km of overhead line by the end of 2020 in the Electric Line Construction areas.

This slide was not discussed at this meeting.

Actions

Action: Powercor to update their presentation.

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

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).

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

DELWP provided a verbal update on the High Voltage Customer Assistance Program (HCAP), advising that applications had been classified into three groups; *green*, *amber* and *red*.

Applicants in the *amber* and *red* groupings were requested to supply additional information relating to their application. Those classified as *amber* were requested to supply the additional information by 30 May 2019, and those assessed as *red* by 14 June 2019.

DELWP advised that a number of funding agreements have been reached with HV customers. It was also reported that some HV customers had not as yet contacted ESV for regulatory oversight, as required by the HCAP process.

DELWP advised that the Minister had released an Expression of Interest for HV customers experiencing genuine hardship in funding the required works to become REFCL ready. It was reported that there had been nine expression of Interest received with all nine to be progressed to assess the hardship case. DELWP advised that formal applications under this scheme were to close on 9 July 2019.

F Factor

DELWP advised that options and methodology for the calculation of next year's F Factor targets were being considered by government. One proposal was to set targets annually, as distinct to five yearly, to take into account the deployment of new technologies including REFCLs. Stakeholder consultation on the revised F Factor was said to have commenced with late June 2019 set as a target completion date.

No written presentation, including graphical representations, regarding HCAP/HV customer issues and processes was provided to the committee by DELWP.

DELWP restructure

DELWP provided a brief overview of the recent restructure within the Energy portfolio within DELWP.

A paper copy of the DELWP Energy organizational structure was provided at the meeting to members and Observers. DELWP undertook to provide an electronic copy for the benefit of Members and Observers.

Action: DELWP to provide an electronic copy of the DELWP Energy organizational structure.

Action: PBSC Secretariat to distribute to Members and Observers a copy of the DELWP Energy organizational structure on receipt from DELWP.

4. Discussion

4.1. Committee Member raised matters

None.

4.2. Other matters

No other matters raised.

5. Meetings

5.1. Next meeting

There was a brief discussion about future meeting dates and Members and Observers to be advised as soon as possible if there are to be any changes.

Unless otherwise advised the next meeting is scheduled for 10 September 2019, starting at 10:00am and finish at 1:00pm, preceded by a “meet and greet” at 9:30 am.

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

5.2. Subsequent meetings

Confirmation was given that subsequent meetings are scheduled for;
10 December 2019, 10 March 2020, and 9 June 2020.

The Chair thanked the presenters for interesting and informative papers.

The Chair then closed the meeting.

Meeting closed at 12:52 pm.

List of Attachments:

- Powercor presentation,
- AusNet Services presentation

Note: There was no written HCAP presentation provided to this meeting.