

VCRCC Meeting Minutes

Date of Meeti Location: Time:	ng: 7 February 2018 AER Sydney and AER Melbourne offices 12:00 to 17:00
Attendees: Melbourne	Andrew Richards (EUAA), Aaron Yuen (ESCV), Duncan MacKinnon (AEC), Chris Murphy (Reliability Panel), Gavin Dufty (Reliability Panel)
	AER staff: Paul Dunn, Anthony Seipolt, Richard Hayes, Betty Lehman AER consultants: Terry Jones (MEI), Ian Gordon (MEI), Ian Bycroft (Insync)
Sydney	Trevor Armstrong (Reliability panel), Matthew Webb (ENA), Alisa Toomey (AEMC), Tom Hallam (ENA),Tom Walker (AEMC), Alicia Webb (AEMO), Craig Memery (PIAC), Mike Smart (IPART), Lynne Gallagher (ECA), Annette Weier (ICRC), Chris Lock (OTTER), Rowan Mckeown (ESCOSA)
	AER staff: George Huang, Ingrid Michel, Jimmy Criticos AER consultant: James Garriock (Insync)
VCU	Jeremy Cross (ERAWA) AER consultant: Professor Kenneth Train (MEI)
Apologies:	Kimberlee McKav (UCNT)

1. Welcome

George Huang welcomed Committee members (Members)

2. Introduction and apologies

Committee members, AER staff, Melbourne Energy Institute (MEI) representatives and KPMG/Insync representatives introduced themselves.

3. Minutes from previous meeting and matters arising / action list Action items from last meeting were noted.

4. Discussion topics

4.1. Presentation by Andrew Richards (EUAA) - Segmentation of business and industrial customers

Key presentation and discussion points were:

• The EUAA does not support determining VCR values for high impact, low probability events. It was noted that many businesses would prefer an outage to higher electricity costs.

- Many businesses have taken internal measures to increase reliability and these commercial decisions should be recognised. If reliability is important to a business more often than not they have invested in their own measures to increase reliability.
- Businesses would rather spend money on their own reliability because it gives them more flexibility. It was noted that there has been a technological shift which has made such alternative arrangements possible and more commercially attractive.
- Large industrial customers are satisfied with their reliability and don't want to pay more. They would rather invest in back up reliability than invest more in grid reinforcement. The concern is not that system reliability is poor, but rather that there is a lack of generation in the National Electricity Market (NEM). Customers have been switched off because of a shortfall in generation, not because of poor network reliability.
- A member commented that the EUAA's message that customers are largely satisfied with their levels of reliability is consistent with what they hear from residential customers. It was also noted that often we think of large users requiring reliability, but now the bigger concern is affordability.
- It was suggested segmentation for large businesses and direct connect customers should focus on the activity undertaken. Members were largely supportive of such a segmentation approach. It was suggested that warehousing, transport and mining could be a further segmentation. The ENA noted that it would have the data necessary to support such segmentation and may be able to segment even further for business segments on the low voltage network.
- It was noted that for business the activity being undertaken is more important to focus on then the region.
- It was suggested that the segmentation of food processing/ perishable goods would be useful as significant disruption is caused if these businesses lose product. It was also noted a fault drop for some of these businesses is almost as bad as a long duration outage.
- The comment was made that at the high voltage level networks have visibility of customer type. This would allow for a localised VCR to be developed from different business segment VCRs. A further comment was made that it is about the timing of the investment. Networks are getting better at understanding the customer mix – if there is more disaggregation of VCR values networks will be more able to accommodate this now.
- It was suggested that if businesses which have invested in their own reliability take part in the survey this could lead to a lower value for grid reliability.

ACTION item:

AER staff will liaise with EUAA and ENA to draw up definitive list of segments for which network businesses have supporting data.

AER staff will clarify with ENA whether business customer identification extends to lower voltage networks

4.2. Presentation by Trevor Armstrong (Reliability panel) - What types of VCR values would be useful for wholesale market settings?

Key presentation and discussion points were:

- It was noted that while the VCR is used to help inform the work of the Reliability Panel, it is a not a direct input.
- If there is a material change in the VCR then this may trigger a review of the reliability standard.
- In reviewing the reliability standard, the VCR helps estimate the actual cost of the load shed and that helps guide the Reliability Panel. The Panel is balancing generation versus load shedding and so it is helpful to identify the volume and number of customers potentially being shed. It was noted that when setting the reliability standard the Reliability Panel is also making a choice about load shedding. It was noted that a more granular VCR would be useful to know for load shedding arrangements.
- The comment was made that feedback from the use of VCR to determine load shedding
 was not practical as the controllers are acting quickly to preserve system security.
 However other members considered while that was the case knowing the VCR was still
 helpful to determine load shedding schedules set by bodies such as the Jurisdictional
 System Security Coordinator.
- There were comments from committee members that it appears we are currently overshooting the reliability standard. The Reliability Panel members of the committee reinforced that their job is how to ensure the market settings achieve the 0.002 reliability standard and not under or over perform against it.
- The Panel discussed their role to review the system restart standard. AEMO must procure system restart services to meet this standard and develop the System Restart Plan in accordance with this standard. It was noted that the system restart standard and system restart services are not looking to put in place measures to prevent a system black but rather bring the system back online and available again for customer following a system black event.
- The Panel gave an overview of the role of the VCR in the development of the system restart standard in 2015-16. AEMO's VCR were used to estimate the value customers place on avoiding system-wide blackouts of varying durations. The Panel welcomed further discussions with the AER to understand how VCRs are used in this area.
- The closing comment was made that we may need to differentiate between how VCR applies to SAIFI as opposed to SAIDI.

ACTION item:

AER staff to follow up with the Reliability Panel regarding system black and how VCRs are used in setting the system restart standard.

VCR methodology and survey design 5.1. MEI papers on survey methodologies

Key presentation and discussion points were:

• Ingrid Michel (IM) led the discussion and noted that for direct connect customers and large business customers direct cost survey approaches will be used. This is consistent

with feedback from stakeholders. The methodology for residential and small business customers is still under consideration and the focus of the discussion today.

- IM gave an overview of the combined contingent valuation and choice experiment survey techniques for residential and small business customers that AEMO used for the 2013-14 VCR review. IM explained that MEI had advised that the use of contingent valuation (CV) to determine the base VCR was the most vulnerable part of the VCR study. MEI proposed exploring replacing the contingent valuation with a revealed preference approach such as real time pricing, load shedding programs or back up batteries (selling, or holding a lottery). This would address the anchoring and hypothetical biases associated with contingent valuation. The committee was asked to consider whether we use an improved contingent valuation (stated preference) survey technique or a revealed preference approach?
- Members thought there were limitations to the battery experiment. Members
 highlighted that there was a lack of interest in response to previous battery give-aways.
 It was also noted that not all customers are able to use back-up batteries (apartment
 owners, vulnerable customers etc). Battery is only currently available to a small sub-set
 of the community.
- The comment was made that the battery would reveal peoples interest in batteries rather than their interest in reliability. Suggestion that customers should not be asked directly about their reliability preferences but rather 'hide it' as part of a larger survey.
- It was suggested that the incremental cost of a UPS which enables a battery to ride through an outage would be a better indicator of a customers' willingness to pay (WTP). It was also noted that the problem with batteries provide additional value to a customer such as energy arbitrage or social status.
- It was also suggested that guaranteed service level (GSL) payments could be an indicator of WTP and in Tasmania customers that receive such payments are asked later whether it was sufficient or not. However it was cautioned that a rational customer would always say it is insufficient. Another suggestion was that a source of revealed preference could be demand management programs involving air conditioning or pumps.
- Some members seemed supportive of pricing experiments as a source of revealed preference, noting some retailers are starting to offer deals which expose customers to the variations in the wholesale price.
- It was questioned whether deliberative groups produced better outcomes than telephone surveys. MEI noted that the deliberative group approach also has issues, with respondents becoming highly susceptible to comments made the group convener. Deliberative groups/forums only tend to be effective when the group is given real power (such as their adopting their responses for use) but if they don't have power then people will give the response they think others in the group will find acceptable.
- It was queried whether a blended approach also using revealed preferences is an option for this VCR Review. MEI advised in this instance the most pragmatic way forward would be to do CV this time and explore revealed preference as a piece of supplementary work as the latter was largely untested. There was unanimous agreement from committee members that for this review we should use improved CV rather than revealed preference survey approach to determine the baseline VCR value for a usual/typical outage.
- The comment was made that the direct customer survey had to be carefully worded so as not to capture lost revenue but the actual real cost of an outage

• It was questioned whether a 'referendum style' WTP question could be used for the CV questions. The view was that this may not work as the respondent may not believe that their answer will influence the actual outcome.

5.2. KPMG/Insync presentation on survey methodologies – practical implications

Key presentation and discussion points were:

- Insync emphasized the importance of using a methodology that will be able to deliver VCR values within the timeframe in the NER.
- Insync discussed the use of (computer assisted telephone interviews) CATI to recruit survey respondents versus online recruitment. It was highlighted outlined that CATI is not representative of the 'normal' customer as CATI recruitment relies on contacting people via landline and many people, particularly younger demographics, do not maintain an active landline now. For this reason online panels tend to be more representative of the population.
- A few of the members noted the difficulty of engaging small business customers. Small business customers tended to have the largest range of VCR values across different studies and some speculated this could be as a result of a lack of engaged responses from small business respondents.
- Insync gave an overview of the planned survey validation work which would be undertaken prior to the launch of the pilot. It was noted that it would enable us to find out what the effect of different outage durations was on customers. Some members thought that expressing duration in terms of the inconvenience which customers suffer would be better than the outage duration. It was noted that the duration of an outage could be worked out based on the inconvenience asked about.
- There was a discussion between several members about gross versus net VCR. It was noted that this project is focused on net VCR.
- Insync suggested that it could work with people in South Australia to discuss the impacts of the system black event through focus groups. This information could then be used to inform the work on high impact, low probability events (HILP). Members seemed supportive of this suggested approach to HILP. It was also suggested surveying customers in northern QLD about their experiences of HILP outages.

ACTION item:

AER staff to follow up with members regarding:

- data on real time pricing and graphs showing temporal and access to price points (Reliability Panel)
- data on recent black out experience of customers and voluntary load shedding (Reliability Panel).
- Contact details for small businesses (ECA)
- Definitions of outages for different durations (ENA)

6. Discussion topics

6.1. ENA presentation by Tom Hallam on would VCR values for momentary outages and long duration outages be useful and how would they be used?

Key presentation and discussion points were:

- It was noted that momentary outages may have a big impact on some business customers. Momentary VCR values for residential customers would not be useful but for business customers momentary VCR values are valuable and could be applied in planning. ENA noted there are solutions to deal with momentary outages and are supportive of establishing a value for momentary outages. It was suggested momentary VCR values should be expressed as \$/event.
- It was proposed that momentary outages be classified as outages under 3 minutes.
- It was noted that to date there has been no incentive for network businesses to address momentary outages as there have been no VCR values for momentary outages. One member noted that any outage would damage telecommunications equipment.
- ENA is supportive of work being done on HILP and noted there is a need to come to an agreed definition. It considered that HILP will always be project specific and there is always going to be a political element. However it may be useful to develop ranges of values for HILP.
- It was noted that HILP and long duration outages could overlap, but they are quite distinct.
- It was generally agreed that 12 hours is a sensible boundary for long duration outages. Members noted that Queensland tended to have longer duration outages compared to other regions, and this is something perhaps to account for.
- It was suggested that HILP VCRs would help incentivise the development of contingencies to minimise the impact of a HILP event and not only develop solutions to prevent a HILP event from occurring.
- Some criteria for determining HILP events were proposed. This included factors such as the amount of economic damage, how widespread the outage is, the number of people affected, duration, transport and whether people can get home.
- It was noted that non-network solutions would benefit from having VCR in place that takes into account longer duration outages. Standard VCR excludes those types of outages.
- It was suggested that it comes down to not determining a general value for HILP events but developing a methodology which can be applied to a specific HILP event.

3 Future meetings

Members were asked if they were interested in joining a HILP sub-committee and if so to please nominate themselves for the sub-committee. The first meeting of the HILP sub-committee is planned for 14 March.

ACTION item: AER staff to revise meeting date for next meeting and invites to be sent to Committee members.