Values of Customer Reliability Consultative Committee Meeting Minutes

Date of Meeting: **29 August 2019**
Location: **AER Melbourne office**
Time: **11:10 to 14:50**

Attendees: Committee members: Matthew Webb (ENA), Tom Hallam (ENA), Duncan MacKinnon (AEC), Andrew Richards (EUAA), Lynne Gallagher (ECA), Tom Walker (AEMC), Chris Murphy (Reliability Panel), Aaron Yuen (ESCV), Alisa Toomey (AEMC), Craig Memery (PIAC), Chris Lock (OTTER)

AER staff: Paul Dunn, George Huang, Ingrid Michel, Danielle Coronel, James Criticos, Richard Hayes, Eado Varon

AER consultants: Terence Jones (MEI), Veronika Nemes (MEI), Ian Bycroft (Insync)

Apologies: Rowan Mckeown (ESCOSA), Mike Smart (IPART), Kimberley McKay (UCNT), Annette Weier (ICRC), Jeremy Cross (ERAWA), Reena Kwong (AEMO), Trevor Armstrong (Reliability Panel), Gavin Dufty (Reliability Panel), James Garriock (Insync), Hannah Lawrence (KPMG)

1. Welcome

George Huang welcomed Committee members and gave the objectives for the meeting.

2. Introduction and apologies

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

3. Updates
3.1. Update on contingent valuation and widespread and long duration outages

Ingrid Michel presented an update on the approach for the contingent valuation questions in the residential and business surveys. Key points covered:

- The surveys will use two closed willingness to pay (WTP) questions with cost prompts, and one open-ended WTP question.

- The residential survey will use a cap of $22 on the open-ended WTP question. This cap is based on a low cost substitutable alternative to the typical residential customer. The business survey will use a cap of 100% of the business' last bill amount.

- The range of cost prompts in the residential survey has been reduced to ensure consistency with the WTP cap, with the initial cost prompt being chosen at random from $2 to $9 per month. The initial cost prompt in the business survey will be randomly chosen from 1% to 10% of the business' bill.

George Huang presented an update on the approach for widespread and long duration outages. Key points covered:

- The primary applications of widespread and long duration outage VCRs are in the review of the System Restart Standard, the assessment of Protected Events, and as a potential input to the recommendations arising from the AEMC's Black System Event (BSE) review.

- The scope of widespread and long duration outage VCRs is limited to account for events which could occur, taking into account National Electricity Market (NEM) operational practices and standards.

- A modelling approach will be used to construct a widespread and long duration outage VCR curve which will capture how the VCR changes as the size of an event (in terms of gigawatt hours (GWh)) changes. The upper limit on this curve will be an event with a total unserved energy equal to 15 GWh. This approximately corresponds to a 10 hour long South Australia BSE on a high temperature day. The AER has put out a tender for this modelling work.

In relation to the contingent valuation questions, members:

- discussed the WTP cap of $22, including queries on what this figure represents, how it was arrived at, and what it would correspond to as a VCR value. AER staff discussed the basis for this figure, noting that it represents a reasonable back-up solution to an outage that an average household is more likely to buy than the high end solution from the previously proposed higher cap of $33

- queried whether it is clear in the contingent valuation question that respondents are being asked about a specific outage rather than any outage. AER staff noted that the question has been phrased as a hypothetical scenario

- queried whether the WTP cap question refers to avoiding all outages. Members noted that surveys by Energy Consumers Australia (ECA) and the Grattan Institute suggest consumers are familiar with weather related outages, and know that they cannot be avoided completely. AER staff noted that WTP cap question refers to the baseline outage and will update this question to ensure this is clear

- suggested refinements to the wording of the WTP cap question, including that it not reference an electricity company.

In relation to the proposed approach for widespread and long duration outages, members:

- discussed whether events more extreme than the upper limit of the widespread and long duration outage VCR curve could occur. Ultimately, members stated that they understood the reasons for the upper limit of 15 GWh but noted that it was not impossible for events greater than upper limit to occur

- discussed the event corresponding to the upper limit of the widespread and long duration outage VCR curve. Members queried whether a widespread and long duration outage in New South Wales with a total GWh impact similar to a 10 hour long South Australia BSE would be more appropriate. AER staff noted that this is a hypothetical scenario to generate a GWh figure for modelling widespread and long duration outage VCRs

- queried how widespread and long duration outage VCRs will be linked to VCRs for standard outages. AER staff noted that despite the different approaches being used to derive VCRs between the two outage types, they would hope to see consistency between the high end of the standard outage data and the low end of the widespread and long duration VCR curve

- queried whether AER staff had a modelling approach in mind for widespread and long duration outages. AER staff noted that the tender emphasises a

macroeconomic modelling approach, like a general equilibrium model, but candidates will be able to include other ideas in their proposals.

ACTION item:

AER staff will provide members with more detail on the inputs and assumptions in calculating the residential WTP cap figure.

AER staff will reword the WTP cap question and send the updated wording to members.

3.2. Indicative draft decision

George Huang presented an overview of the indicative VCR methodology draft decision.

Key points covered the following.

- The draft decision will be presented to the AER Board on 13 September and is intended to be published in mid-September.

- For standard outages (of less than 12 hours in duration) it is proposed that:
  - a combination of contingent valuation (discussed above in 3.1) and choice experiment techniques will be used for residential and business customers with a peak demand of less than 10 MVA
  - a direct cost approach will be used for business customers with a peak demand of more than 10 MVA.

- Customer dollar outage values from surveys will be converted to VCR values ($/kWh) using estimates of customer consumption. Aggregate VCR values for each customer segment will be derived by weighting VCRs for specific outages using applicable probability profiles. State/Territory and NEM wide VCRs will be derived by weighting aggregate customer segment VCRs as a proportion of total demand for the relevant geographic area.

- A macroeconomic modelling approach is proposed for deriving VCR values for widespread and long duration outages, and this may be supplemented by additional work such as case studies.

- VCR values will be annually adjusted to maintain real values using the Consumer Price Index (CPI).

Members:

- suggested that the annual adjustment mechanism (AAM) should be of the form 'CPI – X', even if X (representing the change in customer reliability preferences in a year due to technological, consumption or other factors) is initially equal to zero for this first review. This is to ensure that 'CPI – X' is explored in the next VCR review when data on X may be more readily available. AER staff noted that if the methodology did use CPI – X, X would have to be zero, and be explored in future VCR reviews. Members supported this approach

- discussed alternatives to CPI, such as a GDP deflator or Producer Price Index (PPI)

- queried if it has been determined how metered data will be converted to native data (net or gross data), and noted that it would be good to have a discussion on consumption choices.

ACTION item:

AER staff will discuss consumption profiles with members once they are further progressed.

3.3. Update on surveys

George Huang presented an update on the residential, business and direct cost surveys.

Key points covered the following.

- The residential and business surveys are undergoing final testing and are planned to be launched next week. The main changes to these surveys are the contingent valuation changes discussed above in 3.1, and slight tweaks to the choice modelling design and presentation, which include positioning the bill discount at the top of the choice menus and randomising the position of the baseline option.

- For the survey sample, there is an aspirational target of 31 residential customer cohorts based on climate zone and remoteness, but some of these cohorts are likely to be merged where they have similar results and/or for practical reasons.

- Sampling of business customers will be based on Australian Bureau of Statistics (ABS) groupings. ABS groupings will be grouped into business sectors, and AER staff intend to have six business sector VCRs, but this and potential further segmentation will depend on the responses received.

- A different sampling approach is needed for the Northern Territory compared to the rest of the NEM because of the availability of supporting data and smaller population size. There are three proposed segments: northern and southern regional residential segments, and a business customer segment made up of business in all three of the Northern Territory's regulated networks.

- The direct cost survey was launched on 23 August and will be open until the end of September. Members were thanked for their feedback on the survey and assistance in distributing it, and were encouraged to forward the survey to other eligible customers identified.

ACTION item:

AER staff will shortly contact members who assisted in distributing the direct cost survey to eligible customers to ask if members can send a follow-up reminder in mid-September to customers to complete the survey.

Members will let AER staff know how many additional eligible customers (if any) they have forwarded the direct cost survey to.

4. MEI revealed preference study

Veronika Nemes presented an overview of the MEI's study into estimating VCRs using revealed preference approaches.

Key points covered are as follows.

- The AER's surveys use stated preference approaches where consumers are asked their willingness to pay or accept. Revealed preference approaches use the financial transactions and trade-offs that consumers actually make to infer willingness to pay or accept.

- The revealed preference approaches explored in the study can be grouped as estimations based on:
    - *existing actual markets*: products or services traded are directly related to reliability
    - *proxy markets*: products or services are indirectly or partially related to reliability
    - *experimental markets:* market-like environments that are designed to elicit customers' choices under various scenarios (an option of using *joint estimation*, which combines stated and revealed preference approaches, was also discussed)
    - *defensive expenditure*: values inferred from expenditures on avoiding costs of outages
    - *hedonic pricing methods*: values inferred from prices paid for different characteristics of products or services.
- Advantages, challenges and examples associated with the different types of revealed preference methods were discussed.

Members:
- queried how experimental markets could be implemented, including how customers would be compensated in such experiments
- discussed battery purchases by consumers in the context of a defensive expenditure approach
- queried whether useful information can be extracted from proxy markets. Veronika Nemes noted some examples.

ACTION item:

AER staff will distribute the revealed preference slides from this presentation to members.

5. Next steps & close meeting

The next VCRCC meeting will be held in late October in Melbourne, where AER staff plan to discuss the following with the VCRCC:

- interim results from the surveys
- stakeholder feedback on the VCR methodology draft decision.