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Dear Mark

Values of Customer Reliability Review – Consultation Paper

Meridian Energy Australia Pty Ltd (**Meridian**) thanks the Australian Energy Regulator (**AER**) for the opportunity to provide comments in relation to the Values of Customer Reliability Review (**VCR**) Consultation Paper (the **Paper**).

Meridian is the owner and operator of the Mt Mercer and Mt Millar wind farms as well as Powershop Australia (**Powershop**), which is an innovative retailer committed to providing lower prices for consumers. We recognise the consumer benefits in transitioning to a more renewable-based and distributed energy system and this year announced significant investments in the future of the Australian energy market, including acquiring three hydro power stations in New South Wales and underwriting the development of a number of new renewable energy projects in Victoria and New South Wales.

As both a provider of affordable electricity and gas to over 100,000 customers and a network user with generation assets, we are genuinely interested in ensuring that the VCR allows consumers to benefit from lower network costs without having a negative impact on the reliability and security of supply.

We support the work the AER is doing in relation to the VCR and believe it provides an important layer of data to the market to enable informed decision making. The Paper has captured the issues well and points to the AER making a well informed decision.

While we have provided answers to most of the questions raised by the AER, our general view is that any calculation of VCR must be useful, accurate and timely. We also believe that providing VCR data in an accessible and usable format has the ability to ensure that all decision makers in the market can accurately make their own assessment of how to include VCRs in their own decisions.

We believe that VCRs will be particularly useful if they can be applied appropriately to all decisions. This is likely to require the calculation and publishing of VCRs across a range of dimensions and not simply a generalised average (or averages) which would mask any specific underlying data.

4. The current and future roles of VCRs

4.1 Current application to regulation within the NEM

Question 1: How might the wholesale market price cap be informed by VCR?

The rules currently require the Reliability Panel to take any VCR produced by the AER into account in determining reliability standards and market price settings. This is appropriate. However, there cannot be a direct translation of any VCR into any specific setting as these standards and settings require the balancing of many factors, including investment climate, costs of new generation, impacts on investment and retirement decisions, long term impacts on the overall market and necessary investments. This is made even more complex when any VCR determined by the AER will be limited, for the reasons expressed in the Paper, to an average assessment of the current view of value of reliability to either all customers or a subset of customers (whether by location, class, time or duration). Market price settings therefore must assess not only current customer views of VCR, but how those views may change over the horizon of the review, which is often up to 6 years ahead and in reality, given the desire to maintain stability in market settings, may be for an even longer period.

There seems to be a view that the market price cap should be set at the highest level of VCR. This is a mistaken view – the purpose of the cap is to ensure that the right investment and operational signals are sent to the market for the long term interest of consumers (as required by the NEO), not to ensure that all outages below the VCR are avoided regardless of the long term and short term impacts.

Question 2: What customers and outage scenarios should be considered when deriving applicable VCR values to inform the wholesale market price cap?

Clearly, the Reliability Panel would benefit from receiving guidance on the true underlying value of reliability to consumers. Ideally this should be broken down by region (as regional modelling informs required investment and hence the Market Price Cap etc.), customer class (as the modelling and other assessments may indicate that different classes may face reliability shortfalls), and duration (as the modelling and other assessments may require different investments to avoid regular widespread interruptions vs longer duration irregular interruptions).

4.2 Potential uses for VCR

Question 3: Should VCR inform load-shedding priorities for services other than essential services, and if so, how?

Load shedding priorities is legitimately and appropriately a matter for jurisdictional determination as it is a decision about who should bear the pain for the failure of the market/regulated solution to deliver customer outcomes. These decisions are appropriately made at a political rather than a market or regulatory level.

When assessing such priorities, it is important that jurisdictions have available to them the best possible evidence about the trade-offs being made, and the economic and consumer impacts of such trade-offs.

Accordingly it is important that the VCR determined by the AER is of sufficient granularity to provide useful guidance to jurisdictions. Such granularity could include time based considerations (weekends/night-time vs business hours), duration (short vs extended), geographic extent (feeders vs whole suburbs vs regions), and customer type (commercial vs business vs residential).

Question 5: Should VCR inform a price cap for ancillary services such as NSCAS and FCAS, and if so, how?

FCAS is currently provided by a market based solution and the constraint on that solution vis-à-vis the VCR is the market price cap. While this is a less subtle solution than a direct translation of VCR, it is appropriate for a market based solution where certainty of investment is a key driver. The main constraint on FCAS is, as it should be, the existence of a competitive market such that the market price cap is rarely brought into play.

While similar issues arise in relation to NSCAS, in this case as the provision of services to support regulated obligations is being determined, the VCR has a more direct role to play. Nonetheless, as is the case with the market settings, a careful application of VCR is required. Particular care must be taken to ensure that payments to meet a short-term shortfall are not set so high, whether at or below the VCR, as to crowd out more efficient and effective long-term investments which may lead to significantly lower long term costs for consumers and greater reliability in the long term.

Question 6: What customers and outage scenarios should be considered when deriving applicable VCR values?

As discussed above, a wide range of customers and scenarios will need to be considered and reported on. Region, location, customer class, the timing, duration and/or breadth of the outage are all relevant factors for consideration.

Question 7: Should VCR inform a price cap for RERT, and if so, how?

The VCR should not be used to set a price cap for the RERT alone. The assumption that the RERT provides a "free option" to fill the gap between VCR and the Market Price Cap is based on the same fallacy that is discussed in Question 4.1.

Utilisation of the RERT has the potential to impact on other market signals necessary to maintain long term investment and reliability across the NEM. For this reason it is appropriate that the VCR be considered in determining any such price cap along with other factors, such as impact on long term investments signals.

The appropriate body to determine this balance would be the Reliability Panel, which is responsible for setting the RERT Guidelines, and has the relevant experience and capability to do so.

Question 8: What customers and outage scenarios should be considered when deriving applicable VCR values?

Refer to Question 6.

Question 9: Should the AER determine a VCR for prolonged and extensive outages envisaged by System Black and HILP events?

Such a number might be a useful piece of additional information for assisting the Reliability Panel in assessing particular situations, such as the value of investing in system restart services or for network companies to determine the comparative value of special protection schemes, but it is difficult to see how a number of sufficient accuracy could be determined for use in all circumstances. However, the publishing of an indicative number may be of value if its limitations are understood and it is used alongside other data in decision making.

Question 10: Should VCR be used to inform scheduled planned outages, and if so, how?

Scheduling outages at times that are less disruptive to customers is to be encouraged. The current regulatory regime does not appear to provide enough incentive for networks to schedule outages to avoid excessive customer impacts. While the use of VCR may assist in assessing appropriate times etc. for long term planning of outages, a more thorough review of this issue is required. For example, there appears to be no incentive for

networks to schedule their outages so as to avoid causing large increases in customer prices due to the impacts of constraints on the NEM dispatch engine.

It is concerning that a network may choose to continue an outage to avoid a small rescheduling cost (i.e. $100,000) while driving increased market costs to customers (i.e. millions of dollars) or even load shedding in some cases.

While beyond the scope of this consultation, consideration may need to be given to ensuring that networks are exposed to the true market cost of their decisions (e.g. by bidding their outages into the Dispatch Engine and bearing the cost impact) with the consequence that networks would have a genuine economic incentive to schedule all outages at the most beneficial time for customers. Such a scheme has the potential to avoid significant unnecessary generation investment.

Question 11: Should the AER determine additional VCRs for planned outages?

As expressed in the Paper it is likely that some (but not all) planned outages may have a lower VCR. If the AER is to assess or reward network companies on the true customer impact of their decisions then such a calculation may be necessary. For example, networks could be encouraged to increase planned outages to avoid unplanned outages even if this led to a greater duration of outages overall. Such a scheme would require the AER to form a view of the comparative value of such outages.

Question 12: Should VCR values for different customer types also inform the allocation of distribution and transmission shared costs among customers, and if so, how?

There is clearly value in assessing the appropriate allocation of shared costs. Currently this is limited to the network determination and annual tariff setting process and is often a second order issue in such matters. The AER should consider the appropriateness of the current framework. However, VCR is only one factor that might inform such a review as there are strong arguments in both equity and economics that the current system places too many costs on users who utilise less than average amounts of energy. Similarly, in a market where many of the costs are reinforcement and expansion expenditure rather than replacement and maintenance expenditure, there are strong arguments in favour of ensuring that customers who have a growing demand pay more than those with a stable or declining demand (regardless of the actual level of that underlying demand). Whilst beyond the scope of this consultation, these factors highlight that these are complex matters that are unlikely to be improved by adding VCR into an allocation formula.

Question 13: Are there any other regulatory investment assessments and/or NEM planning contexts that could be informed by the application of VCR values?

It is likely that there are a substantial range of matters that would benefit from a better understanding of VCR. However, it is difficult to identify all such cases in advance. For this reason there would be significant value in ensuring that all data and analysis that supports any VCR calculation is shared in a user friendly format. This will not only assist in ensuring greater transparency but allow market participants and other interested parties to develop bespoke VCR calculations for other purposes.

Question 14: If so, what customer and outage scenarios should be considered when deriving applicable VCR values?

As discussed in Question 13, it is difficult to assess in advance what scenarios may be desirable. However, if a wide range of scenarios covering most dimensions of the issue are made available, then users should be able to determine their own appropriate VCR values.

Question 15: For what purposes do you currently use VCR? Is the current level of VCR segmentation by customer type and outage scenarios in AEMO's 2014 review fit for your purposes?

We do not directly utilise the current VCR calculations for purposes other than informing our views on appropriate market settings and the like. Given the highly averaged nature of the current calculations they are primarily of value in understanding and determining industry wide factors rather than company-wide ones. If data is provided in a more granular form, we may utilise this for internal company decision making.

5. Methodologies for Deriving VCR

5.1 Approaches to deriving VCR

Question 17: Do you think the methodology used by AEMO to derive (CVS and CM for residential and business, and DCA for direct connect customers) is still appropriate, taking into account current and potential uses of VCR discussed in chapter 4?

There are difficulties with all estimation methods. However, the proposed approach, subject to one qualification discussed below in Question 18, appears appropriate.

Question 18: If not, what other method or methods would be most appropriate to engage with customers and derive VCR values?

As discussed in the Paper, there is academic evidence that consumers may 'game' their responses to attempt to achieve what they perceive to be a more favourable outcome. This is a genuine concern. To avoid this behaviour it may be wise to combine the survey with other similar questions so that the purpose of the survey is less obvious. For example, questions in relation to 'willingness to pay' could include questions not only on energy outages but also traffic congestion, health services, education etc. By requiring respondents to rank their genuine willingness to pay for these services, an additional check on the accuracy of the responses would be achieved. For example, if consumers rank increasing electricity reliability below all the other options (the value of which can be derived from other data) it is likely that VCR may be much lower than their direct response. Likewise, the converse might be true if energy reliability is highly ranked.

Question 19: Should different methods be used for different customer types?

Clearly there are some methods that can be used for commercial and industrial customers that are unlikely to be possible for small business and residential customers. For example, there may be value in doing direct econometric modelling of the impact on large industrial customers in specific sectors. However, it is likely that the value of different methods will be as cross-checks rather than complete alternatives.

Question 20: Should multiple methods be used to cross check derived VCR values?

Derived VCR values are likely to be estimates at best and will require the application of a considerable amount of judgement. In these circumstances, the use of cross-checks will have a key role to play.

5.2 VCR Customer Segments

Question 21: What levels and categories of segmentation in VCR values are useful to you, taking into account the trade off between accuracy and required survey respondents and resources?

The trade-off should be a key consideration as there is a need for significant segmentation. A more accurate, lower cost VCR estimate that cannot usefully inform decision making is useless. However, a less accurate, slightly more expensive segmented VCR that can guide decision making will be very valuable. The level of segmentation is ultimately dependent on how much the benefits outweigh the costs in the particular circumstances and will require the exercise of good judgement. Obviously, a single point estimate of VCR is unlikely to be useful. The dimensions discussed above (regions, location, customer class, the timing, duration and/or breadth of the outage) are likely to be the minimum required levels of segmentation to make VCR estimates useful.

Question 22: Are there particular customer types, categories, sectors etc. that are critical to focus on in this review and any surveys we conduct?

In addition to ensuring that the segments discussed above are covered, there are at least two classes of customers that should be included. These are customers with solar/storage (who may have a quite different outlook to non-solar customers) and customers with low capacity to pay (i.e. pensioners, low income workers, families and hardship customers). The latter group may face a different choice to other customers, in that the option for them may not be less reliable energy vs higher costs, but rather less reliable energy vs inability to afford energy.

5.4 Combining segmented VCR values at point of investment

Question 31: What method should be used to representationally weight affected segmented customer classes at the point of proposed investment?

It is difficult to determine the correct method to representationally weight affected customers. What is clear is that it is unlikely be a simple average based on consumption. For example, on a sample network with two users, one who has a VCR of $10,000 and another with a VCR of $100,000, the result would be a VCR of $55,000. This would produce the unfortunate result of one customer paying for reliability improvement that cost up to five times the value they assigned, and the other not receiving the benefit of half of the potential reliability improvements they could use.

It is also worth noting that if the raw data is published in a sufficiently accessible format, decision makers could make their own determination as to how to weight the VCR for the relevant decision. For example, it is sometimes argued that because load shedding normally falls primarily on small and residential customers, the Reliability Panel should only consider the VCR for such customers when adjusting market settings.

Question 32: Should different consumption information be used to weight VCR values depending on the nature of the outages being considered? For example, should average annual consumption information be used to weight VCR values when considering prolonged outages, and average peak consumption values be used to weight VCR values when considering short outages during peak periods?

There is clearly value in considering such approaches. However, careful consideration must be given to determining actual levels of VCR (whether applying market wide or to a particular segment) and the use of that data by decision makers. Trying to determine an industry standard VCR for different circumstances has the potential to produce a result that is not fit for purpose or that will drive inefficiencies that are not in the long term interests of consumers in terms of either reliability or price.

5.6 Annual adjustments to VCR and frequency of VCR reviews

Question 34: How often should the AER undertake reviews of VCR?

Given that regulatory reviews are on a five year cycle and market settings are on a four year cycle, there is no obvious answer. It would be inappropriate to conduct reviews that will have significant customer impacts for many years ahead in reliance on out of date data (i.e. 6 years for regulatory reviews and 5 for market settings when adding the review process and publication time to the duration of the application). Neither review should be undertaken on data that is older than three years. This would ensure that each review has new data available when compared to the previous review.

This would suggest that at a minimum, reviews would need to be carried out at least every three years. While ultimately there will be a need to balance cost with effectiveness, one consideration might be to time the reviews so that they are generally available just prior to the majority of regulatory reviews undertaken by the

AER. Given that the AER reviews are undertaken on a five year cycle, this might require that reviews are undertaken every two and half years.

Question 35: What mechanism(s) should be applied to adjust the VCR on an annual basis?

As derived VCRs will at best be an estimate of underlying customer views of the value of reliability, there seems to be little value in exhausting significant resources in determining an indexation methodology. Any variation due to adjustment methodology is unlikely to be wider than the underlying error bounds of the original estimate. For these reasons, we consider CPI indexation, which is used commonly across the NEM, to be an appropriate indexation methodology.

5.7 Transitioning to new VCR values

Question 36: Should smoothing techniques be applied when transitioning to newly derived VCRs?

While smoothing VCRs for some purposes is attractive, this question raises issues associated with how the VCRs are used more than how they are calculated. If customers valued reliability at $50,000 five years ago and $100,000 today, then $100,000 is the true value that customers place on reliability today and not $75,000 (due to smoothing its application).

Customers will not appreciate the market and regulators discouraging investments that are needed in the future at costs less than customers are prepared to pay (nor encouraging investments at prices they are not prepared to pay) so as to achieve some desired false consistency or 'smoothing'.

If there are genuine reasons for smoothing VCRs then the decision maker should be required to explain their reasoning for doing so.

If you have any queries or would like to discuss our submission further, please do not hesitate to contact me.

Yours sincerely,

Ed McManus

Chief Executive Officer
Meridian Energy Australia & Powershop Australia