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Dear Ms Kwong

### **Value of Customer Reliability Issues Paper**

Ergon Energy Corporation Limited (Ergon Energy) welcomes the opportunity provided by the Australian Energy Market Operator (AEMO) to provide feedback in relation to the National Value of Customer Reliability Issues Paper, and in particular the issue of how to best determine Values of Customer Reliability (VCRs) and under which National Electricity Market (NEM) circumstances planners, system/network operators, regulators and policy makers should apply the values.

This submission which is available for publication is made by Ergon Energy in its capacity as an electricity distribution network service provider (DNSP) in Queensland.

Ergon Energy considers that robust VCR estimates are fundamental to the achievement of the overall objective of ensuring that DNSPs are spending in a prudent and efficient manner, particularly in consideration of significant electricity price rises across the NEM, and on this basis supports the development of VCR estimates for each NEM Region. In this regard, Ergon Energy considers that VCR estimates should ensure an appropriate balance between the need to maintain a reliable supply and the maintenance of efficient pricing outcomes for customers.

Ergon Energy notes AEMO's commitment to calculating new VCRs for the NEM by December 2013. In view of the relatively short timeframe for this to occur, Ergon Energy shares the concern expressed by the Energy Networks Association (ENA) that this has the potential to undermine the SCER's wider objective of determining a methodology that is appropriate both now and into the future. For this reason, Ergon Energy is supportive of the ENA's recommendation for AEMO to consider the merits of deferring the VCR calculations beyond the currently proposed timeframe.

Comments in relation to specific questions raised in the Issues Paper are provided below for the AEMO's consideration.

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| 6. For AEMO's 2013 review, should the VCRs be calculated on a regional or sector-specific basis? Why? |
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Research conducted by Ergon Energy clearly indicates that there are distinct differences in reliability tolerance across various end-use customer segments. Consequently, Ergon Energy supports a sector-specific (including for example, residential, agricultural, commercial and industrial) approach to setting VCRs. However we consider that there will need to be some consideration of regional characteristics in this review. For example, a remote commercial customer faced with re-stocking perishables may face a higher financial cost as a consequence of a 1 hour interruption outage than a commercial CBD customer.

This is due to the fact that remote customers can be isolated and it is more difficult and takes longer to get produce to the remote customer as opposed to a CBD customer.

On this basis, Ergon Energy considers that there should be a hybrid approach adopted when calculating VCRs that takes into account any regional differences. These differences may include location of the customer, network differences, customer mix and installed end-use electricity services.

7. How could sector-specific VCRs be re-weighted to reflect geographical considerations?

Ergon Energy suggests that a regional multiplier could be most appropriate to reflect geographical differences in estimating VCRs.

12. What strategies or approaches should be used to overcome apparent anomalies and biases in previous VCR surveys?

Ergon Energy considers that the existing approach to VCR estimation, based on customer interview results, has the potential to lead to inappropriate VCR estimates being ascribed to varying customer classes. On this basis Ergon Energy acknowledges and agrees with the following areas for improvement for future VCR surveys that were identified by Oakley Greenwood in its 2012 report on VCR in NSW:

- More attention and resources devoted to methods for securing better response rates and participation;
- Further investigation of the impact of survey delivery method on response rate and the quality of responses.
- Considering that mitigation choices offered to residential customers should be updated every time the VCR survey is undertaken;
- the consideration of additional investigation into the high VCR recorded with small business customers, as this appears to be material; and
- the consideration of a more robust comparison of the results of the VCR approach with those of choice modelling for willingness to pay and willingness to accept.<sup>1</sup>

Ergon Energy also notes concern expressed by the ENA about the inherent uncertainty and measurement error in establishing VCRs, and for this reason, agrees with the ENA that these fundamental limitations need to be addressed, particularly where VCRs are to be used to inform future network decisions.

13. Should contingent valuation or other survey methodologies be used to allow higher values to be placed on residential customer inconvenience from interruptions?

Ergon Energy agrees with Oakley Greenwood's view that different survey methodologies should be used for residential customers "because residential customers are much less likely to incur direct costs as a result of electricity supply interruptions than are business customers, a different interview approach is needed. Rather than asking residential customers how much financial damage they would incur due to a power failure, the VCR approach offers the residential respondent choices of actions that they might take in the event of frequent supply interruptions"<sup>2</sup>. Further, Ergon Energy considers that the use of appropriate survey methodologies will help support appropriate investment on the network.

14. Is survey data on the cost of momentary interruptions likely to be useful to the transmission planning process? What applications of VCRs are likely to benefit most from more information about momentary interruptions costs?

Although Ergon Energy cannot explicitly confirm the value in the transmission planning process, Ergon Energy considers that there is great value in understanding the costs curves of outages (momentary, 5 minutes, 15 minutes, 30 minutes, 1 hour, 2 hour, 4 hour, 8 hour, 12 hour, 18 hour, and 24 hour). In particular, the availability of this data would enable Ergon Energy to plan mitigation strategies that are tailored to suit the needs of our customers. For example, a residential customer may have little concern for a 30 minute outage while a commercial customer will be more sensitive to a 30 minute outage. For a residential customer, Ergon Energy may consider strategies such as remote network switching and SCADA operated embedded generation. However, in the case of a commercial/industrial customer, for

<sup>1</sup> The *NSW Value of Customer Reliability, Final Report*, 30 May 2012, p 61

<sup>2</sup> *ibid*, p3

whom a 1 minute outage may be just as costly as a 2 hour outage, the value of a SCADA control solution would likely be nil, and Ergon Energy would therefore most likely look at either a N-1 supply or accept slower generator start up strategies, for these customers.

15. Is greater customer-type disaggregation necessary or preferable for setting VCRs?

At present Ergon Energy can only break down sector energy consumption by the tariffs that customers are connected to. However, Ergon Energy is currently transitioning to a broader approach to the collection of customer data in order to better understand our customer's needs. On this basis Ergon Energy considers that greater disaggregation of customer data has the potential to complement our intended approach and to support the development of more cost effective strategies. However, dependent upon the level of the disaggregation required, consideration should be given as to whether there will be any system costs associated with being able to disaggregate to a certain customer level and the extent of those costs in comparison to the overall benefit to be realised.

18. Should VCRs be set in the same way as transmission and distribution networks? If not, what features warrant different considerations and how should these differences be incorporated?

Ergon Energy considers that VCRs for transmission and distribution networks can be reasonably ascertained using the same underlying principles. However, due to the fact that the scope and impact of interruptions to either network will invariably differ it is essential that any VCR measurements take into consideration these factors. For example, interruptions to the transmission network will invariably impact a broader section of the population and result in detrimental 'societal' impacts through interruptions to essential services.

19. Can VCR surveys estimate the cost of HILPs or should HILP events be captured separately within the reliability framework?

Ergon Energy considers that VCR surveys, if structured properly, can definitely estimate the cost of HILPs and on this basis suggests that HILP events would not have to be captured separately within the reliability framework. However, as differences in survey approaches can contribute to discrepancies in results, Ergon Energy highlights the importance of using a robust appropriately structured survey for this purpose.

20. Based on the responses to Q19, how would HILP costs be reflected in the metric development or reliability framework?

Ergon Energy considers that the HILP costs should be reflected in the metric development. This approach would allow Ergon Energy to understand the way in which these low probability events affect our customers and enable us to choose effective mitigation strategies for these events.

Ergon Energy looks forward to providing continued assistance to AEMO in its investigation into determining VCRs. Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact either myself on (07) 4092 9813 or Trudy Fraser on (07) 3851 6787.

Yours sincerely



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