



Part of Energy Queensland

2 July 2024

Stephanie Jolly
Executive General Manager, Consumers, Policy, and Markets
Australian Energy Regulator
VCR2024@aer.gov.au

Dear Ms Jolly,

Values of Customer Reliability 2024

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex), both distribution network service providers (DNSPs) operating in Queensland, welcome the opportunity to provide a response to the Australian Energy Regulator's (AER) Value of Customer Reliability (VCR) methodology revised draft determination (the draft determination).

Whilst we expect energy supply reliability will always remain a critical issue for our customers, the findings from the 2023 [Queensland Household Energy Survey](#) (QHES) revealed that affordability was the prominent issue due to cost-of-living pressures, with more customers concerned about their ability to pay electricity bills compared to the two years prior.

To help inform the AER's VCR review and determine whether the above sentiment holds true for other jurisdictions, the AER may wish to review the findings from other surveys including the [Energy Consumer Sentiment Survey June 2024](#) undertaken by Energy Consumers Australia. It will also assist in understanding the current views of business customers, considering the criticality of electricity supply reliability to their operations.

However, the combination of businesses' behind the meter investments to mitigate the impact of supply interruptions, and business confidence falling into negative territory in May 2024¹ may suggest business customers would not want to over-capitalise on reliability.

National Electricity Market (NEM) measures and reviews could contribute to this over-capitalisation, and these include:

- The Australian Energy Market Commission (AEMC)'s [Review of the form of the reliability standard and administered price cap](#);
- The AER's review on the [Value of Network Resilience \(VNR\) 2024](#); and
- The AER's VCR 2024 review.

¹ [NAB Monthly Business Survey, May 2024](#).

Notwithstanding the possible changing sentiment towards reliability for customers, the above reviews, whilst having their own purpose and agenda, have the common trait of highlighting the importance of electricity supply reliability and ensuring it remains a key consideration for investment in the NEM.

Of concern, however, is the interconnectedness of these reviews and the timing differences for their finalisation. For example:

- VCR is a key input into the reliability (standard) framework as the determinant of the cost of unserved energy². The AEMC's final report for this review was published in June 2024; and
- the impact of climate change is an important factor for both the AER's VNR 2024 review (final decision due in September 2024) and the current climate zone and remoteness VCRs.

We believe regulatory bodies' leveraging of findings from other reliability reviews will only be limited because of their various deadlines for completion. Furthermore, important revelations from one review may not be able to be reflected in other reliability measures in a timely manner. For example, excluding annual adjustments, the VCR is only reviewed and updated every five years.

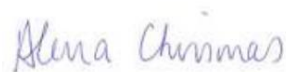
In the interests of consistency, efficiency, and effectiveness, regulatory bodies including the AER and AEMC may wish to consider the possibility of:

- combining or coordinating their related reliability reviews and schedules; and
- prior to the implementation of new reliability measures, allowing stakeholders to thoroughly test their reasonableness in their network planning and investment assessment processes across the NEM.

Ergon Energy's and Energex's responses to the AER's questions are included as an attachment to this submission. Neither this cover letter, nor our detailed responses to questions, contain confidential information and therefore, this submission may be published.

Should the AER require additional information or wish to discuss any aspect of this submission, please contact either myself, or Lindsay Chin on 0459 642 052.

Yours sincerely



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Encl: Attachment – Table of detailed comments

² [Review of the Form of the Reliability Standard and APC, AEMC Draft report p7](#)



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Attachment – Table of Ergon Energy’s and Energex’s detailed comments

Question	Ergon Energy’s and Energex’s comments
<p>1. We welcome stakeholders’ feedback on our demographic/ contextual questions, any changes that may be desirable, and how they would make our VCR methodology more fit for purpose.</p>	<p>We support the AER’s view that:</p> <ul style="list-style-type: none"> • a survey is the most appropriate method for residential customers (especially its choice experiment component); and • a direct cost survey is the most appropriate for large business customers. <p>For customers with solar PV, EV and or home automation, we recommend the addition of a new question on their intention to own battery storage within five years. This would assist in interpreting customers’ responses and provide useful, although indicative, forecasts of additional battery storage.</p> <p>For the choice experiments section, the following questions could be added to assist in analysing adequate willingness to pay (WTP) values, especially for high impact / low probability (HILP) outages:</p> <ul style="list-style-type: none"> • Customers’ acceptance of: <ul style="list-style-type: none"> ○ the frequency of outages occurring (e.g., 1, 2 or 3 times a year); ○ the increase in bills expressed as, for example, \$4, \$8 and \$18 for residential customers; and ○ the increase in bills expressed as a percentage of their average monthly bills (e.g., no change, 1%, 2% and 3%) for business customers. <p>Electricity usage patterns and lifestyles, demographic and socioeconomic characteristics, and the likely impact of an outage on a household’s activity schedule may additionally improve the quality of the survey.</p>
<p>2. We are interested in stakeholder views on any measures we could take to improve the direct cost survey response rate and whether we should adjust the survey questionnaire, noting a potential trade-off between the number of</p>	<p>Unfortunately, we can offer no suggestions to improve the response rate.</p> <p>With regards to adjustments, it would be useful to understand the proportion that had production processes that were sensitive to short/frequent outages. This would inform the AER as to the merits of excluding momentary outages from the VCR.</p> <p>Also, we support the AER’s proposal to include a question on lost revenue from not being able to export to the grid during an outage.</p>

Question	Ergon Energy's and Energex's comments
<p>questions and the response rate.</p>	<p>With regards to the timing, we are concerned the mid-December deadline for publishing the updated VCR using the reviewed VCR methodology may be too optimistic, considering the significant volume of survey analysis and modelling required.</p>
<p>3. We seek further stakeholder feedback on:</p> <ul style="list-style-type: none"> • how any of the presented challenges could be overcome and what approach to annual adjustment may better reflect the ongoing changes in the energy sector and the broader economy • how we can implement such an approach in practice • whether conducting VCR reviews more frequently may be a better alternative to making changes to the current annual adjustment mechanism. 	<p>As discussed in the draft determination, several options were considered to maintain VCR estimates constant in real terms.</p> <p>We believe more frequent VCR reviews would indeed be superior to automatic annual adjustments. However, we are in general agreement with the AER that it is questionable whether the additional costs for the AER (and stakeholders, which are ultimately passed onto customers) would outweigh the benefits.</p> <p>Furthermore, we suspect a more refined annual adjustment mechanism will make little difference to the VCR and the preferred option in a Regulatory Investment Test (RIT) assessment because the adjustment is likely to be immaterial and would be used consistently across all possible RIT options.</p> <p>Thus, we support the current CPI annual adjustment mechanism, in its current form, which is transparent, replicable, and most importantly cost effective to carry out.</p> <p>With regards to the x-factor and specifically residential customers' proportionate share of annual changes to the VCR, the AER may wish to consider, after setting a baseline, setting the x-factor to changes in customers' willingness to sacrifice reliability for reduced bills as surveyed in the QHES (for Queensland). Other jurisdictional surveys would be used for other States and Territories.</p> <p>For example, an increase/ (decrease) in customers' willingness to sacrifice reliability for reduced bills would result in, ceteris paribus, an annual VCR adjustment being lower/ (higher) than changes in CPI.</p>
<p>4. We are seeking stakeholder feedback on improvements to estimating unserved energy, especially for:</p> <ul style="list-style-type: none"> • businesses customers • customers with solar PV • other customer drivers like EV ownership or battery storage 	<ul style="list-style-type: none"> • There are several definitions of "unserved energy" (and similar terms) that are used in the NEM. For example: <ul style="list-style-type: none"> ○ The AEMC's, "Unserved Energy": "...measures the amount of customer demand that cannot be supplied within a region of the NEM due to a shortage of generation, demand-side participation, or interconnector capacity..." ○ Annual Reporting RIN's, "Energy not supplied (unplanned) (MWh)": "The estimate of energy not supplied (due to unplanned outage)..." ○ Annual Information Orders', "Energy not supplied": "An estimate of the amount of energy that would have been supplied using the transmission or distribution network (as applicable) if the outage on the network had not occurred..."

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	<p>For consistency, it is recommended that the VCR (and related VNR), adopt the RIN terminology (and then the Annual Information Orders' terminology when reporting commences next year) by using Energy not supplied (ENS) (instead of "unserved energy").</p> <ul style="list-style-type: none"> <p>Business Customers</p> <p>In essence, the VCR is based on \$/kWh of ENS during unplanned outages up to 12 hours, with momentary outages and prolonged outages (>12 hrs) not included.</p> <p>In estimating VCR, it is important to consider the impact on businesses' lost opportunities and costs because of the ENS' events, which are not necessarily tied to the duration and volume of ENS.</p> <p>For example, there are large but very sensitive business customers (like egg, or dairy processing plants) where even momentary outages, despite relatively low ENS and duration, can cause significant business losses during and after the event.</p> <p>On that basis, the AER may wish to consider creating two business' VCR values – a "standard" business VCR value and another for "sensitive" business customers.</p> <p>To determine the VCR for "sensitive" business customers, surveys could be combined with analysis/ modelling different scenarios. Surveying typical "sensitive" customers on all feeder categories (CBD, Urban, Short Rural; and Long Rural) should reflect their WTP and willingness to accept (WTA) for the VCR, which can be used in modelling of reliability events relevant for this category of customers.</p> <p>Customers with solar PV and other customer drivers like EV ownership or battery storage</p> <p>We acknowledge the AER's difficulties in obtaining a statistically significant survey sample of customers with solar PV, EV and battery storage (Consumer Energy Resources (CER) customers).</p> <p>However, on the assumption that this challenge could be overcome, we consider that the outages for CER customers are sufficiently different to conventional customers such that their outages represent a new type of market outage.</p> <p>For CER customers it is beneficial to explore:</p> <ul style="list-style-type: none"> ○ different methods for assessing the value of avoiding outages such as lost income from "Energy not Exported" (ENE); and ○ their sensitivity to outages at different times of the day.

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	<p>This is because WTP and WTA represent conventional boundaries in the VCR methodology (max-min limits) that are influenced by various factors (e.g., valuation, opportunity cost, customer circumstances, income, preferences, market conditions, etc.) and which are less relevant to CER customers.</p> <p>Also, for an EV customer, a "Willingness to pay for flexible charging" would be more relevant.</p> <p>Whilst the AER's Customer export curtailment value (CECV) methodology requires DNSPs to demonstrate how its proposed investments will alleviate export curtailment and supports uninterrupted exports to the network, it is ENE which is of a more pressing concern for solar PV customers.</p> <p>In the future it is expected that as more customers become self-sufficient through the installation of PV and battery storage there will be less reliance on grid reliability and therefore the VCR will decrease.</p> <p>However, currently, most PV systems cannot operate in island mode following the loss of grid supply, which highlights ENE's importance.</p> <p>It is expected in the future, CERs with dynamic connections will play a greater role in the NEM through the creation of virtual power plants and increased midday charging of EVs and batteries.</p>