

10 July 2026

Kami Kaur
Executive General Manager Network Regulation
Australian Energy Regulator

Dear Ms Kaur,

AER Network Resilience Guidelines Consultation Paper

Energy Networks Australia (ENA) welcomes the opportunity to respond to the Australian Energy Regulator's (AER) consultation paper on Network Resilience Guidelines.¹

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

The Australian Energy Market Commission (AEMC) through its rule change² emphasised the importance of network resilience, especially in the wake of climate change. Resilience protects communities, supports reliability for customers, and minimises restoration costs post climate events.

ENA supports the development of the AER's network resilience guidelines to provide a greater level of understanding on the AER's expectations in Distribution Network Service Providers (DNSP) revenue resets resilience expenditure proposals. The guidelines will indicate what the AER considers to be good resilience expenditure practice and will contribute to robust investment cases in the long-term interests of customers.

ENA's key views as outlined in the submission are:

- The AER should provide a library of illustrative case studies demonstrating the characteristics of well supported resilience expenditure proposals. Accompanied by clear explanations of why these examples are the expected standard provides guidance alongside flexibility to account for jurisdictional differences and support the evolution of modelling and investment cases over time,
- The guidelines need to recognise the differences between networks, including providing guidance on how the AER assesses environmental differences, and be cognisant of the potential difficulties in implementing a standardised data template,
- The guidelines should provide guidance on the treatment of Value of Network Resilience in resilience proposals, including how the metric interacts with the Value of Customer Reliability. The current methods contradict consumer engagement findings, which have found customers often value mitigating outages over 12 hours more,
- Importance of avoiding duplication in reporting requirements with some reporting already included within state processes or climate-related disclosures. The AER should note the lack

¹ AER, *Network Resilience Guidelines, Consultation Paper*, 4 June 2026.

² AEMC, *Including distribution network resilience in the National Electricity Rules*, 8 May 2025.

of readily available resilience metrics for immediate implementation of benchmarking reporting, and

- Transmission networks differ fundamentally from distribution networks in terms of nature of the assets, risk profiles and customer impacts. If additional resilience guidance for TNSPs is considered necessary in the future, it should be developed through a separate consultation process that allows for a fit-for-purpose framework tailored to transmission network circumstances.

Underlying resilience proposals needs to be a clear and practical definition of what constitutes resilience and distinguishes the purpose of resilience separate to reliability. The current definition of resilience has a focus on general outages which may be caused by a range of factors. Other recognised definitions also refer to the anticipation and preparation for climate events. The definition of resilience should more closely resemble the resilience expenditure factor; to reduce the risk and impact of prolonged outages.

Supporting Information in resilience proposals

In its final rule, the AEMC requires the AER to provide examples of the types of information DNSPs could include in its revenue proposals to support forecasts of resilience expenditure. ENA supports the inclusion of established and recognised climate research in the guidelines as an example of appropriate climate data.

ENA recommends the guidelines include a library of case studies which includes frameworks and approved tools that the AER recognises as a good resilience proposal. A range of case studies will promote a high standard of resilience expenditure proposals and support greater consistency in regulatory decisions. DNSPs should continue to be permitted to use different modelling that suit the structure and environment of the specific network, but further understanding of what the AER considers good practices will guide networks to effective modelling, allowing methods to evolve over time. Importantly, case studies should support innovation and continuous improvement rather than prescribe a single methodology. Case studies should include examples of forward looking modelling or simulations, to support best practice of the future framework.

For severe weather events, there may not be historical data to draw on and with shifting climate perils, solely using static historical data may no longer be an accurate predictor of future network impacts. Severe weather impacts are not limited to hazards readily represented in long-term climate projections, specifically thunderstorms, lightning, wind and large storms are not represented in projections yet are among the most significant causes of customer outages. Depending on the hazard and maturity of modelling, some climate hazards will be better served using a combination of modelling including forward looking modelling, however, this should be left to the DNSP to decide the most appropriate methodology. ENA recommends the AER support using combinations of forecasting methods, including probabilistic risk modelling, in resilience planning to more accurately capture shifting weather patterns.

ENA also recommends the Guidelines include reference to the treatment of high impact low probability events (HILP) as mitigation of such events should be through resilience expenditure. Given the resilience expenditure framework is intended to support investments that reduce the risk and impact of prolonged outages, greater clarity on how the AER will assess investments targeting HILP events would support more proactive and efficient resilience planning. Guidance could also include the AER's expectations regarding the appropriate balance between ex ante and ex post expenditure.

ENA considers there is significant difficulty in establishing a standardised resilience template to accommodate the circumstances of each individual network. ENA does not consider its development will reduce the need for supplementary information where a DNSP is seeking to explain network-

specific risks and proposed solutions. There is a risk that excessive standardisation could inadvertently prioritise consistency over the quality and completeness of information available to the AER when assessing expenditure proposals. Due to the environmental differences, resilience between networks is often not like-for-like comparisons. If developed, DNSPs should retain flexibility to provide additional supporting information where necessary to adequately capture the unique characteristics and resilience challenges of individual networks.

Assessment of resilience proposals

ENA recommends the guidelines include a list of factors or criteria for defining resilience expenditure and distinguishing it from other expenditure categories such as replacement expenditure (repex) or reliability expenditure. Greater clarity on these distinctions would support more consistent revenue proposals, improve subsequent reporting and reduce the potential for differing interpretations between DNSPs and the AER.

ENA encourages the guidelines to outline how the AER considers geographical differences and environmental context. The strong variance in Australian weather patterns between DNSPs requires consideration for environmental context as resilience methods that are effective for one, are not necessarily effective for another. For example, fire resistant pole wraps were approved in AusNet and Powercor's recent revenue resets as a resilience method for bushfires. These pole wraps are appropriate for low intensity grass fires but are less effective for other types of bushfires potentially more common in other landscapes. It is currently unclear how differences in landscapes and types of weather events are taken into consideration in AER decisions, and further how the AER considers environmental differences when a DNSP uses international examples where no Australian-focused example is available. ENA recommends the guidelines provide a principles-based explanation or include examples of appropriate use of supporting information on environmental context.

Consumer engagement consistently demonstrates that communities want DNSPs to play a greater role in supporting community resilience, but there is currently no clarity on what roles the AER believes this to be. Details in the guidelines on appropriate options analysis for community resilience would provide greater clarity for DNSPs. In recent decisions, the AER decided some community resilience measures could be the role of councils or undertaken through government funding, but whether these parties participate in such actions are outside the control of the DNSP. Consumer engagement will guide the DNSP on its possible role in community resilience. The AER should provide further guidance on good community resilience and how it will assess consumer engagement results in community resilience proposals.

ENA believes further guidance is needed on the assessment of operating expenditure (opex). To date, decisions have only approved opex where it relates to significant events, but opex is still incurred for resilience for non-significant events. Current regulatory outcomes may unintentionally favour capital solutions where operational solutions could provide a more efficient means of delivering resilience benefits to customers and communities. We encourage the AER to reconsider its current treatment of resilience opex to ensure investments are delivered efficiently.

Value of Network Resilience

Despite the AER's 2024 review of the Value of Network Resilience (VNR)³, there remains significant uncertainty regarding its appropriate application in resilience expenditure assessments. ENA recommends the guidelines provide clearer direction on the role of VNR in resilience proposals, including whether resilience investments are expected to be primarily justified through a VNR

³ AER, [*Value of Network Resilience – Final Decision*](#), 30 September 2024.

assessment. The guidelines should also outline application of VNR across individual customers and groups of customers experiencing prolonged outages.

Further clarity is also required on the interaction between VNR and Value of Customer Reliability (VCR) and ENA encourages guidance on the instances each measure is applied in resilience proposals. While VNR is typically intended to assess prolonged outages longer than 12 hours, its application can produce values that are lower than those derived using VCR. Consumer engagement undertaken by DNSPs contradicts this result and frequently indicates that customers place a higher value on mitigating prolonged outages. Some investments for VNR may also have a VCR benefit, yet there is little clarity on how the AER considers the impact in decisions.

There is also a lack of clarity of treatment for outages shorter than 12 hours. Previous resilience proposals have used VCR for outages less than 12 hours, and ENA considers this approach appropriate. In its determination, the AEMC noted there is no time limit on resilience, proving it is important to consider outages less than 12 hours in resilience investments, yet there is little understanding on how the AER expects application of VCR in resilience proposals.

Further work is required on a long-term method for calculating the VNR. Previous consultation processes have stated a long-term methodology is a key focus, yet there remains no clear pathway or timeframe for its development.

Consumer Engagement

The consultation paper discusses the importance of genuine consumer engagement in revenue proposals. DNSPs undertake significant and in-depth consumer engagement to develop its revenue proposals, as noted by the AER. However, despite genuine consumer engagement undertaken, it is often not provided sufficient weight in regulatory decisions, leading to consumers reducing confidence in the effectiveness of participation. Any inclusion of consumer engagement practices in the guidelines needs to also provide greater transparency regarding how customer views are considered in resilience assessments.

While consumer engagement is important, the guidelines should recognise that engagement on severe and catastrophic weather events may involve customers who have experienced significant disruption and trauma. Expectations should therefore be proportionate and not unreasonably assume ongoing engagement on these issues.

Reporting obligations

ENA supports the reporting obligations established by the AEMC's rule change and note the continued progression of the Enhancing Distribution Network Planning & Reporting rule change only changes the reporting requirements in structure. The proposed Distribution Network Development Plan (DNDP) and annual updates are expected to keep the same reporting requirements.

ENA emphasises the importance of simple reporting and avoiding duplication of existing reporting obligations. DNSPs already undertake resilience reporting through measures such as climate-related disclosures and state-based reporting. Avoiding duplication will reduce regulatory burden and ultimately costs for customers.

ENA cautions against immediately introducing resilience reporting metrics focussed on KPIs. Developing mature and reliable resilience KPIs will take years of baseline tracking and international alignment (such as monitoring evolving IEEE standards). Any future reporting should be outcomes-focussed and appropriately manage the differences between networks in weather variance and maturity in modelling.

Any reporting on capex and opex for resilience expenditure in the Annual Information Orders (AIO) needs to be cognisant that resilience expenditure often does not fit into one cost category easily. For example, following a storm a network may choose to replace a fallen wooden pole with a concrete pole requiring additional capex than a like for like replacement. It is unclear whether this would be categorised as repex since it is replacing a broken asset, or if it is resilience expenditure since it is improving the resilience to withstand climate events. Reporting on resilience expenditure is difficult and would potentially present a misleading picture to customers. ENA encourages further engagement on potential AIO reporting requirements.

Incentive Schemes

ENA considers the current approach to resilience in incentive schemes appropriate. Severe weather events are out of the control of DNSPs and there are currently no appropriate metrics available to develop a resilience focussed incentive scheme. Implementing an incentive scheme without the appropriate level of consultation could have unintended outcomes. Therefore, ENA believes the current approach to STPIS should not be changed in these guidelines and be tackled in future reviews with in-depth engagement.

Resilience for Transmission Networks

ENA does not support extending the scope of these guidelines to transmission network service providers (TNSPs). The AEMC's rule change was initiated in direct response to issues specific to electricity distribution, and the AEMC was explicit in its final determination that existing arrangements already provide TNSPs with adequate pathways to seek approval for resilience expenditure under the current economic regulatory framework. The AEMC's final rule, 2022 guidance note, and the guidelines this consultation paper seeks to develop are distinctly DNSP centric.

Noting the tight timeline to finalise these guidelines by November 2026, extending its application to transmission networks without due consideration of the nature of transmission assets and the scale and geography of transmission network events would not be prudent. Transmission networks consist of a smaller number of high-voltage, high-consequence assets whose failure can cause region-wide or system-wide outages rather than localised consumer impacts. Transmission resilience investments are typically large, lumpy, and individually significant. These factors affect the approach to options analysis, cost-benefit analysis and consumer engagement expectations. Should additional resilience guidance for TNSPs be required in future, it should be developed through a separate, dedicated consultation process with TNSPs and with a timeline that allows for the design of a genuinely fit-for-purpose framework.

If you wish to discuss any of the matters raised in this response further, please contact Victoria Baikie, Senior Regulatory Analyst, [REDACTED]

Yours sincerely,

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Dor Son Tan
Director, Electricity Networks