Ms Kami Kaur
A/Executive General Manager Network Regulation
Australian Energy Regulator
Submission made via email to aerinquiry@aer.gov.au

10 July 2026

Subject: Network resilience guidelines - Consultation paper

Dear Ms Kaur,

SA Power Networks welcomes the opportunity to comment to the Australian Energy Regulator (AER) on the 'Network resilience guidelines - Consultation paper'.

Distribution Network Service Providers (DNSPs) are increasingly exposed to severe weather events due to climate change. Many DNSPs are pursuing proactive investments to prevent widespread/prolonged outages and avoid costly reactive actions. We welcome new guidelines which support DNSPs identifying and assessing resilience investments in a consistent, prudent, and robust manner.

Our key views detailed in this submission are:

1) **New reporting requirements should be simple, integrated, and outcomes-focused:** Any new reporting should be simple and integrated with existing processes. DNSPs have differing maturity in climate risk assessment, and there is risk of duplication with existing reporting processes. Reporting should also be focused on resilience outcomes for customers rather than expenditure. Many other expenditure types and management practices can contribute to resilience.
2) **AER expectations for supporting evidence should be proportionate to the size of resilience investment:** While resilience proposals should generally be supported by quantitative evidence, the AER should adopt a proportionate approach so that smaller resilience investments are not discouraged by unduly complex or resource-intensive assessment requirements.
3) **The AER should clarify the scope of the guidelines and 'resilience expenditure':** The AER should more clearly define the hazards captured by a 'severe weather event', and explain how the guidelines may apply to expenditure that is not 'resilience expenditure' but delivers material resilience benefits, including expenditure for safety, asset replacement and reliability management programs.
4) **The guidelines should drive assessment approaches and evidence that are fit-for-purpose for resilience investments:** Resilience investments address severe events that are uncertain, evolving and often have high impact/low probability. The guidelines should support bespoke assessment tools and approaches (such as modelled estimates of base year risk, assessment horizons aligned with asset lives, and meaningful consideration of consumer risk preferences) that better capture the full range of resilience benefits and costs.

We look forward to continuing to engage with the AER on how these guidelines can best promote the resilience outcomes that customers value and desire. If you have questions on our submission, please contact Bruno Coelho, Regulatory Strategy Manager, at [redacted]

Richard Sibly
Head of Regulation

New reporting requirements should be simple, integrated and outcomes-focused

We would support a limited set of simple, outcome-focused metrics and reporting requirements based on readily available data. As resilience expenditure becomes a more material part of network investment over time, the regulatory framework should better recognise service outcomes being delivered to customers. The AER should consider how new resilience measures could be integrated into service performance comparisons between DNSPs, and eventually into benchmarking reports and processes.

The AER should exercise caution in interpreting simple resilience metrics. For example, resilience expenditure alone is not a reliable indicator of network resilience, as it may reflect differences in network characteristics, risk exposure, and operating environment rather than the outcomes achieved. What matters most is the resilience outcomes DNSPs deliver for customers through a range of actions, including investments that may not be classified as resilience expenditure.

Any new metrics or templates should be broadly applicable across the wide range of resilience actions pursued by DNSPs, including network hardening, DNSP-initiated asset relocation, operational preparedness, and data-sharing initiatives with third parties (e.g. various emergency services organisations). They should also be proportionate and practical, recognising that DNSPs are at different levels of maturity in climate risk assessment and resilience appraisal.

We would not support reporting requirements which are overly prescriptive or excessively granular. The most appropriate evidence of the risk posed by severe weather events will differ based on specific risks faced by each DNSP. DNSPs should retain flexibility to provide detailed information that is fit-for-purpose. For example, one DNSP may be exposed to flooding that could lead to prolonged outages for a small number of customers. Another DNSP may be exposed to storms that cause shorter, but more widespread outages. A metric focused on prolonged outages would adequately capture the risk faced by the first DNSP, but a different metric may be more appropriate for the second DNSP.

The AER should also avoid duplicating existing reporting processes. Any new templates should, wherever possible, be integrated with existing reporting processes, such as Reset RINs and Annual Information Orders, and should leverage information already available through other reporting channels, including AASB S2 Sustainability Reporting.

AER expectations for supporting evidence should be proportionate to the size of resilience investment

We support the AER's views on the types of evidence which may be expected in resilience proposals, such as expecting quantitative evidence that the preferred option achieves the greatest net benefit.

High quality economic analysis is often more complex and resource intensive for resilience investments compared to other expenditure types. Robust cost benefit analysis for resilience investments will often require bespoke climate/hazard modelling and clear evidence of the network's exposure and vulnerability to severe weather. For smaller resilience proposals (e.g. trials of new equipment, community engagement, data sharing and coordination initiatives), the cost of undertaking this level of analysis may become disproportionate. This creates a risk that worthwhile investments are discouraged because the supporting assessment burden is too high.

The AER should ensure its expectations for supporting evidence are proportionate to the size and complexity of the proposed investment. In particular, the AER should consider a cost threshold below which resilience investments could be supported by qualitative evidence, or by less detailed quantitative analysis, rather than a detailed economic assessment. This would help maintain analytical rigour while avoiding unnecessary barriers to smaller-scale resilience expenditure.

The AER should clarify the scope of the guidelines and 'resilience expenditure'

We believe that the definitions of 'network resilience' and 'community resilience' are broadly sound, however the scope of 'resilience expenditure' and the guidelines require more clarity:

- **Definition of a 'severe weather event'**: the AER should clarify the climate-related hazards that may be defined as a 'severe weather event'. The term most commonly refers to naturally-occurring bushfires, floods and storms, however it can also refer to a broader range of climate-related hazards including heatwaves, droughts, and coastal erosion. The frequency and severity of these hazards are expected to be affected by climate change[1]. Heatwaves and droughts can lead to higher outage rates by contributing to heat stress in overhanging trees and other issues such as insulator pollution.

- **Treatment of non-resilience expenditure**: The AER should provide greater clarity on the treatment of non-resilience expenditure that delivers resilience co-benefits. The consultation paper explains that the guidelines will provide examples of resilience expenditure and supporting information for Regulatory Proposals. In practice, safety, asset replacement and reliability management programs may also improve resilience outcomes even where resilience is not their primary driver. For example, investments that reduce the risk of ignitions from asset failures may also reduce the likelihood of outages caused by fires affecting the network.

  We encourage the AER to consider how DNSPs could apply key aspects of the guidelines to non-resilience expenditure with resilience co-benefits. This may include allowing the use of bespoke assessment approaches or resilience values for these expenditure types. This would better reflect the practical reality that resilience outcomes are often delivered through a range of overlapping network programs.

The guidelines should drive assessment approaches and evidence that are fit-for-purpose for resilience investments

The initial Value of Network Resilience (VNR) has gone some way to helping DNSPs value the benefits of resilience investments. However, there are still important gaps in guidance which limit DNSPs' ability to consider the full range of costs from High Impact Low Probability events (HILPs) and the benefits from resilience investments. These gaps make it challenging for DNSPs to understand whether HILPs should be prioritised over other network risks (e.g. given the potential disproportionality in investment costs versus the significant impact of severe weather events).

Resilience investments are intended to mitigate severe events whose frequency and timing are uncertain and evolving over time, which makes them inherently difficult to assess using standard appraisal approaches. In some cases, DNSPs will need to apply more tailored and robust assessment methods to demonstrate the benefits of those investments. To support robust assessments, the AER should enable DNSPs to consider the following in resilience proposals:

- **Modelled estimates of base year risk:** We support the principle that base year risk in economic analysis should be comparable to observed historical risk. However, the AER should acknowledge that observed historical data will often underestimate (and in some cases overestimate) a network's exposure and vulnerability to severe weather events. This is because:

[1] Australian Climate Service (2025), Australia's Future Climate and Hazards Report, accessed 6 July 2026

- many severe events will have long average return periods and may not be adequately captured by historic data. For example, flood modelling may suggest that the network is exposed to a 1-in-100 year flood, but a flood of this size may not have occurred in the last 20-30 years;
- baseline exposure may already have changed over the last 20-30 years due to climate change. For example, severe bushfires which used to be 1-in-100 year events may now occur more frequently; and
- network vulnerability may have increased (or decreased) since it was last exposed to a severe weather event due to changes in asset age, condition, design, and location.

The AER should allow DNSPs to consider these factors when comparing base year risk with historical observations.

- **Assessment horizons aligned with asset lives:** Climate change will make some long-life assets more exposed or vulnerable to severe weather over time. These effects can only be properly captured through assessment horizons that are well aligned with asset lives. A like-for-like pole replacement may appear efficient under current risk conditions, but a DNSP may reasonably prefer, for example, to relocate the pole if it accounts for changes in bushfire risk over its lifetime.

  The AER should support DNSPs considering longer assessment periods for programs involving long-life assets which may be impacted by severe weather. This would better reflect the long-term implications of investments that are made now. This principle is aligned with Commonwealth government guidance on climate scenario analysis[2].

- **Assessing benefits under a range of plausible futures**: We support the AER's focus on the benefits of resilience investment under an expected future. However, many resilience investments also provide value by reducing the impacts of higher-risk scenarios, including where severe weather events occur earlier or more often than expected. An assessment based only on 'probable' benefits may not fully capture the value these investments deliver to customers in those scenarios.

  There may be variety of ways in which this gap could be addressed. However, these need not depend on the AER having to produce a singular method / value that it applies to all DNSPs in the same way that the VNR applies. Our view is that the AER should instead permit DNSPs to apply assessment approaches that test how resilience investments perform across a range of plausible futures, including higher-risk scenarios which are less likely to occur. Considering benefits across a range of plausible futures can provide networks with a more complete understanding of:

  - the scale of benefits under higher-risk or worst-case scenarios
  - the circumstances in which an investment is likely to deliver a net benefit or net cost
  - the plausible range of customer outcomes with and without the investment.

  This process can provide richer evidence for the need to invest and would allow DNSPs to have more robust conversations with consumers about the implications of resilience investment (or lack thereof). We note the benefits of this type of analysis are recognised in best-practice government guidance[3].

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[2] DCCEEW (2026), National Climate Scenario Guidance, accessed 6 July 2026

[3] NSW Treasury (2025), TPG23-17 Disaster Cost-Benefit Framework, accessed 6 July 2026. Infrastructure Australia (2021), Guide to risk and uncertainty analysis, accessed 6 July 2026

- **Consumer risk preferences:** Many consumers are risk averse and may value greater certainty in worst case scenarios as well as their payoff under an 'expected' future. Consumer risk preferences are usually observed qualitatively through customer engagement processes, however it is also possible to quantify risk preferences and consider them alongside economic analysis. It is established practice to incorporate consumer risk preferences into decision-making processes[4].

  The guidelines should support DNSPs to consider consumer risk preferences in engagement processes and to give these preferences sufficient weight in investment decisions. For example, a resilience investment may have a benefit-cost ratio (BCR) of 0.95 (suggesting the DNSP should not invest), however the investment may also provide certainty to customers who would prefer to be protected against HILP scenarios. In this case it may be sensible for the network to invest even if the BCR is below 1. Likewise, it may be sensible for a DNSP to not make an investment with a BCR above 1, if their customers prefer to accept the HILP risk.

- **Avoided response and recovery costs:** Without resilience investment, DNSPs can incur significant costs in responding to and recovering from severe weather events. These may include emergency response, temporary restoration measures, logistics, workforce mobilisation and subsequent repair costs, which are often passed through to customers. The AER should support DNSPs considering these avoided response and recovery costs in resilience proposals, as they form an important part of the value of many resilience investments.

Other points

- The definition of community resilience should better align with the definition of resilience applied in Australia's National Climate Risk Assessment[5]:

  > *'The ability [of a community] to resist, absorb, accommodate, adapt to, transform and recover from the effects of a [climate-related] hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.'*

  This definition considers climate-related hazards more broadly and is not limited to severe weather events that would be considered 'natural disasters'.

- The scope of the guidelines should not be tied too closely to the current VNR framework. While the initial VNR has been beneficial, a long-term methodology has not yet been developed. We would welcome greater clarity on the AER's plans for the long-term VNR.

- Consumer engagement should remain principles-based and non-prescriptive. DNSPs should be able to tailor engagement to the needs and preferences of their customers, rather than following a single prescribed approach.

- The AER should clarify when it would be appropriate for DNSPs to draw on international studies and information from other jurisdictions.

[4] NSW Treasury (2025), TPG23-17 Disaster Cost-Benefit Framework, accessed 6 July 2026

[5] Australian Climate Service (2025), Australia's National Climate Risk Assessment Report, accessed 6 July 2026