



Submission to the Australian Energy Regulator

Network Resilience Guidelines

9 July 2026

Introduction

The Investor Group on Climate Change (IGCC) welcomes the opportunity to provide feedback on the Australian Energy Regulator's (AER) *Network Resilience Guidelines – Consultation Paper*.

IGCC is a collaboration of Australian and New Zealand institutional investors focused on the impact of climate change on investments. Collectively, our members have total funds under management of over \$4 trillion in Australia and New Zealand. IGCC's members are long-term owners of critical infrastructure, including electricity networks and generation assets.

Reliable and resilient electricity networks underpin economic productivity, community wellbeing, and investment performance. As long-term infrastructure owners and diversified investors, IGCC members have a strong interest in ensuring regulatory settings support efficient, forward-looking investment in climate resilience. There is already a significant body of evidence showing the detrimental impacts of climate change on infrastructure both currently and into the future^{1,2,3}.

IGCC supports the AER's efforts to strengthen the regulatory framework for network resilience. This aligns with IGCC's Policy Priorities⁴ (Priority 2.3, p. 21), which recommend updating regulations to consider resilience over the full lifespan of assets.

In this submission, we first provide high-level feedback on the consultation paper and then specific feedback to the consultation questions.

High-level feedback on consultation paper

IGCC supports the AER's efforts to provide greater clarity on resilience expenditure. However, the consultation paper focuses primarily on process, rather than strategic issues shaping network resilience.

IGCC encourages the AER to strengthen its broader approach to network resilience by:

1. Closing gaps in climate science and risk assessment.
2. Strengthening system-level coordination and risk alignment.
3. Standardising financial and economic assessment of resilience.

¹ IGCC (2025) From Risk to Resilience: Investor Expectations of Companies on Physical Risk Management and Resilience <https://igcc.org.au/wp-content/uploads/2025/09/From-risk-to-resilience-report.pdf>

² Australian Climate Service (2025) National Climate Risk Assessment <https://www.acs.gov.au/pages/national-climate-risk-assessment>

³ Infrastructure Victoria (2026) Warning Signs: Climate Change Risks to Victoria's Infrastructure <https://www.infrastructurevictoria.com.au/resources/warning-signs-4>

⁴ IGCC (2026) Supercharging Australia's Future: IGCC's Policy Priorities <https://igcc.org.au/wp-content/uploads/2026/03/IGCC-Super-Charging-Australias-Future-Policy-Priorities-2030.pdf>

4. Considering community vulnerability in resilience assessments and expenditure.
5. Supporting efficient, flexible adaptation pathways.
6. Improving transparency and predictability of resilience decision-making.

1. Closing gaps in climate science and risk assessment

A constraint on resilience investment is the lack of consistent, high-quality climate and hazard data for the energy sector. While Network Service Providers (NSPs) are increasingly undertaking climate risk modelling, approaches remain fragmented, assumptions vary, and hazard coverage is incomplete. In some cases, resilience planning remains heavily informed by historical conditions, despite climate change increasing the frequency and severity of physical risks. Forward-looking, climate-informed assessments are increasingly necessary for long-term asset management, as outlined in IGCC's recent guide *Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making*⁵.

IGCC recommends that the AER:

- Support national development of fit-for-purpose climate data inputs (e.g., by engaging with the Australian Climate Service and other data providers).
- Promote consistent use of forward-looking climate risk assessment methodologies. IGCC's recently released guide *Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making*⁵ provides recommendations for choosing climate projections and scenarios (p. 15).
- Encourage the development of sector-relevant hazard models, particularly for risks where data confidence is currently low (e.g., extreme wind, changing wind patterns).
- Extend the definition of resilience beyond acute events to include chronic climate risks (e.g., increasing temperatures).

2. Strengthening system-level coordination and risk alignment

While the consultation paper recognises the role of multiple actors in supporting community resilience, it provides limited guidance on system-level coordination and prioritisation.

IGCC recommends that the AER:

- Provide guidance on system-level priorities, including priority infrastructure types, high-risk geographies, and communities with limited adaptive capacity.
- Demonstrate regulatory leadership by defining system-level risk appetite, including:

⁵ IGCC (2026) *Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making* <https://igcc.org.au/wp-content/uploads/2026/05/IGCC-Resilient-Infrastructure.pdf>

- Target levels of resilience for priority assets and regions to avoid over- and under-adaptation.
- Clear expectations for the trade-offs between resilience, reliability, and cost.
- Promote consistent decision-making frameworks across NSPs, even where delivery approaches differ.

3. Standardising financial and economic assessment of resilience

A barrier to efficient investment is inconsistency in how resilience expenditure is defined, assessed, and justified. There remains significant variation in how NSPs define resilience versus reliability expenditure and quantifying benefits and avoided costs.

Importantly, resilience needs vary across networks due to differences in geography, assets, climate hazards, and community preferences. Regulatory settings should support consistent principles and decision-making frameworks while allowing flexibility in how resilience outcomes are achieved.

IGCC recommends that the AER:

- Develop a standardised framework (or template) for resilience proposals, supported by:
 - Clear definitions of what is an “additional” adaptation expenditure.
 - Consistent treatment of costs and benefits.
- Introduce a taxonomy or classification system to distinguish:
 - Baseline reliability expenditure.
 - Incremental adaptation measures.
 - Broader system or community resilience investments.
- Support fit-for-purpose resilience strategies that reflect differing network contexts, asset portfolios, and community preferences, rather than prescribing a uniform approach.
- Align incentives to prioritise proactive resilience investment, rather than post-event cost recovery.

4. Considering community vulnerability in resilience assessments and expenditure

IGCC strongly supports the AER’s focus on community resilience. Investors increasingly recognise the importance of the social dimensions in climate adaptation (see IGCC’s Just Adaptation: An Introduction for Institutional Investors⁶).

However, the consultation paper does not address the disproportionate impacts of outages across communities. For example, there may be greater economic and social

⁶ IGCC (2026) Just Adaptation: Introduction for Institutional Investors <https://igcc.org.au/wp-content/uploads/2026/06/IGCC-Just-Adaptation-2026.pdf>

disruption due to outages where alternatives are limited, particularly in rural and regional communities.

IGCC recommends that the AER:

- Consider community vulnerability when assessing resilience expenditure proposals (and therefore require consideration of community vulnerability in resilience proposals).
- Support targeted investment in vulnerable communities rather than purely uniform approaches.
- Recognise the link between reliability and social license, particularly in areas hosting new energy infrastructure.

5. Support efficient, flexible adaptation pathways

There is uncertainty about the physical impacts of climate change on network resilience and community responses over coming decades (e.g., managed retreat). To manage this uncertainty and avoid over-investment in long-lived assets or assets in declining use, adaptive pathways may be more efficient than one-off capital investments in some cases.

These pathways may involve incremental operational expenditure, preventative maintenance, monitoring, preparedness activities, or staged adaptation measures that evolve over time as risks become clearer. Regulatory settings should support these approaches where they represent the most efficient pathway to resilience.

IGCC recommends that the AER:

- Support a broader set of adaptation solutions, including:
 - Non-network solutions (e.g., demand response, distributed energy resources).
 - Modular and flexible infrastructure.
 - Temporary or mobile assets where appropriate.
- Ensure expenditure assessment frameworks appropriately recognise preventative and operational investments, rather than preferencing post-event recovery or one-off capital investments.

6. Improving transparency and predictability of resilience decision-making

Regulatory certainty enables efficient long-term resilience investment. Investors and NSPs require a clear understanding of how resilience expenditure is assessed, what evidence is expected, and how trade-offs are evaluated. Greater transparency can reduce regulatory risk, improve investment quality, and support more efficient engagement processes.

IGCC recommends that the AER:

- Provide greater transparency regarding how resilience expenditure proposals are assessed.
- Publish guidance and examples that demonstrate how resilience, reliability, and affordability trade-offs are considered.
- Improve feedback mechanisms to support learning and consistency across future proposals.

Responses to consultation questions

1: What are your views on the definition of network resilience?

IGCC views the current framing of resilience, focused on outages > 12 hours from extreme events, as too narrow. The definition should include impacts from chronic climate risks and interdependencies with community resilience.

2: What are your views on whether the network resilience guidelines should apply to transmission network service providers?

IGCC supports extending the guidelines to transmission networks, given their exposure to physical climate risks and importance to systemic resilience.

3: What are your views on a standardised resilience template?

IGCC supports a standardised framework (or template) for resilience proposals, provided it is:

- Underpinned by consistent climate data and risk methodologies (see IGCC's Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making⁷).
- Flexible enough to reflect different network contexts.
- Designed to improve comparability and transparency.

4-5: What are your views on implementing a requirement on DNSPs to provide actual resilience spend through Annual Information Orders? What are your views on the type of data that might be useful and publicly available?

IGCC supports new reporting, provided that:

- Any new requirements are targeted, decision-useful, and not duplicative.
- Reporting on forward-looking physical risk assessments and adaptation outcomes is prioritised.

⁷ IGCC (2026) Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making <https://igcc.org.au/wp-content/uploads/2026/05/IGCC-Resilient-Infrastructure.pdf>

6: What are your views on the evidence that the AER has had regard to in assessing a business' preferred resilience solution?

IGCC supports the AER's emphasis on adaptation options analysis and cost-benefit testing. However, additional guidance is needed to ensure:

- Consistent treatment of risk and uncertainty (see IGCC's Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making⁸).
- Clear articulation of risk appetite and target levels of resilience.
- Inclusion of non-network and flexible adaptation options.

7: What are your views on the key features of genuine consumer engagement on resilience proposals?

IGCC supports outcome-based consumer engagement that:

- Clearly articulates trade-offs between cost, reliability, and resilience.
- Reflects differences in community vulnerability and preferences.
- Links engagement outcomes to decision-making and investment choices.

8-9: What are your views on the definition of community resilience? What are your views on the factors the AER has regard to when assessing community resilience?

IGCC supports the current definition of community resilience, but recommends:

- Broadening the definition to include resilience to chronic climate risks.
- Recognition of uneven impacts of outages across communities.
- Clearer guidance on how community resilience is reflected in resilience expenditure decisions.

10-11: What are your views on the type of information that should be included in the DAPR to better understand a DNSP's strategy to manage its resilience needs? What are your views on how this new information collection relates to the AER's existing information collection through the annual information orders?

IGCC recommends that DAPR reporting include:

- Forward-looking physical climate risk assessments (see IGCC's Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making⁸).
- Explanation of adaptation measures and expected outcomes.
- Clear articulation of risk appetite and decision frameworks, including how resilience investment decisions are made.

⁸ IGCC (2026) Resilient Infrastructure: Physical Climate Risk Assessments for Defensible Decision-Making <https://igcc.org.au/wp-content/uploads/2026/05/IGCC-Resilient-Infrastructure.pdf>

12: What are your views on how resilience expenditure should be addressed in the incentive schemes?

IGCC recommends that the AER review incentive settings to ensure they:

- Encourage proactive resilience investment, not just reactive cost recovery.
- Support efficient allocation of capital across the system, including avoiding over-investment in assets that may become stranded.

Further information

IGCC welcomes ongoing engagement with the AER as this work progresses. Please contact us for more information.

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