

8 July 2026

Kami Kaur
Executive General Manager (A/g), Network Regulation
Australian Energy Regulator

Submitted via email aerinquiry@aer.gov.au

Dear Kami

AER – Network Resilience Guidelines Consultation Paper

Endeavour Energy appreciates the opportunity to respond to the Australian Energy Regulator's (AER) [Network Resilience Guidelines consultation paper](#) (the **Consultation paper**) which will inform the development of its Network Resilience Guidelines (the **Guidelines**) about its assessment approach to network resilience expenditure and replace the informal 2022 guidance note.

Distribution networks are vulnerable to risks from the impacts of extreme weather events which are increasing in frequency and severity with the impacts of climate change. The resilience of electricity networks is an increasing focus among Distribution Network Service Providers (DNSPs) in the face of risks posed by climate change impacts and the growing dependence on electricity through decarbonisation and electrification.

Ensuring an appropriate level of resilience is important to minimise the potential costs of damage from natural hazards. The NSW Reconstruction Authority's *State Disaster Mitigation Plan* estimates the 2023 average annual loss (AAL) (i.e., cost of damage) from all hazards across NSW was \$3.1 billion dollars per year. It forecasts this cost to grow by 195% to \$9.1 billion dollars per year in 2060 under a high emissions scenario. It identifies the top 20 local government areas (LGA) with the highest average annual loss in 2023 and 2060.

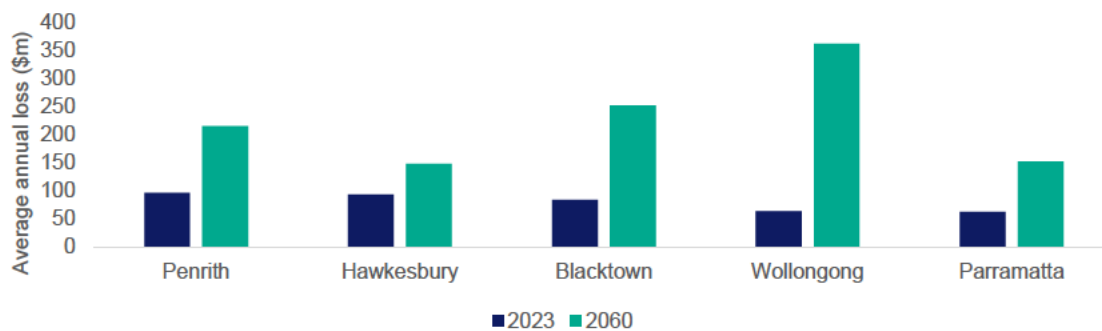
Relevantly to Endeavour Energy's network:

- twenty per-cent of these 'top 20' LGAs across 2023 and 2060 are found in Endeavour Energy's catchment (see Figure 1 below);¹ and
- the current population of these five LGAs is in the order of 1.6 million people, representing over half of the total population that our network serves².

¹ NSW Reconstruction Authority, [State Disaster Mitigation Plan 2024-2026](#), pp 62-63.

² ABS estimated residential population 2025

Figure 1: Estimated total AAL in the built environment (millions per year, \$2023 real)



Source: NSW Reconstruction Authority, [State Disaster Mitigation Plan 2024-2026](#), pp 62-63.

Note: Figure only includes LGAs within Endeavour Energy's catchment that were identified to be the top 20 LGAs in both 2023 and 2060

The scale of people impacted, combined with the substantial cost of damage from natural hazards, highlights the importance of effectively and efficiently building resilience and reducing risk carried by networks and communities, and the extent of investment after a severe weather event.

We are supportive of the AER developing clear guidelines that provide DNSPs with greater certainty regarding what constitutes efficient resilience expenditure. In general, we recommend that the Guidelines:

- be principles-based, recognising the duty of care DNSPs have to our customers and communities who increasingly rely on electricity for safety before, during and after major disruptive events. This includes the complex role in working alongside other emergency agencies while we repair and rebuild the network after major disruptive events;
- provide DNSPs with the flexibility to apply suitable datasets, methodologies and models to support resilience programs and projects that reflect their specific climate change risks, network issues and community needs;
- draw from network and customer experiences of historical and recent extreme weather events and consider opportunities to improve clarity on aspects of recent determinations where DNSP and AER viewpoints of efficient resilience expenditure estimates differed materially;
- provide clarity on how the AER will conduct its resilience expenditure assessments; and
- include worked examples of how the AER's Value of Network Resilience (VNR) should be applied in establishing the economic justification for resilience investment. This guidance would be particularly valuable for projects and activities targeted at supporting 'community resilience'.

Endeavour Energy is eager to support the AER in developing its Guidelines. Our detailed submission in **Appendix A** includes our responses to the Consultation paper questions, supported by case studies of resilience expenditure which illustrate resilience expenditure and activities that we consider are of value to include in the Guidelines. Should you wish to discuss this submission further, please contact Shirley Dang, Principal Policy Advisor at

[Redacted]

Yours sincerely

[Redacted]

Francoise Merit
Chief Financial Officer

Appendix A – Endeavour’s response to AER’s Network Resilience Guidelines Consultation Paper

Defining network resilience

The current definition for network resilience in the AER’s informal guidance note and Consultation paper is as follows:³

“A performance characteristic of a network and its supporting systems (e.g., emergency response processes, etc.). It is the network’s ability to continue to adequately provide network services and recover those services when subjected to disruptive events”

We agree with the outcomes-focused nature of the definition; however, the Consultation Paper then goes on to state that:⁴

*“The key factor in determining whether the expenditure is resilience-related is whether resilience is the primary driver of the proposed expenditure; that is, whether the primary driver or need for the expenditure is to address outages of **more than 12 hours from extreme weather events.**”*

We caution against the inclusion of a time-based threshold in the definition. As the impact of severe weather events is not easily predictable, using an arbitrary hourly threshold may inadvertently rule out legitimate resilience expenditure that customers and communities value. Additionally, we stress that it is the consequence of a weather event that is important to our customers, rather than the duration of outage. We believe that a definition for network resilience should be agnostic to length of time from an extreme weather event, but consequence based.

Rather, we recommend that the AER adapt the UK Cabinet Office definition for resilience as:⁵

“Resilience is the ability of assets, networks and systems to anticipate, absorb, adapt to and/or rapidly recover from a disruptive event”

We consider that this definition reflects the key resilience factors – i.e., anticipate, absorb, adapt and/or recovery - in an evolving and complex energy system. The definition could be amended to capture the full life-cycle of resilience by including ‘learnings from’ a disruptive event. This will enable learnings from past experiences to inform future resilience activities. Additionally, this definition reflects how resilience is not just limited to the physical infrastructure but is part of a complex interconnected system.

By way of illustration, we have included below three case studies of where we believe resilience activities align well with the UK Cabinet Office’s definition of resilience.

If the AER were to include a time threshold in its definition and assessments, we recommend that the AER evaluate the basis for the 12-hour mark. We recognise that this aligns with how the AER currently differentiates outages covered by the value of customer reliability (**VCR**) and the VNR. However, we question whether 12 hours is appropriate in current modern society, particularly given the criticality of electricity supply to the economy, customer and community expectations regarding modern life and, in particular, the ubiquitous nature of technology. We therefore see value in the AER consulting with consumers and communities on the appropriate threshold, recognising that this may warrant a more holistic review of network resilience, the VCR and the VNR.

³ AER, *Network resilience guidelines – Consultation paper*, June 2026, p12.

⁴ AER, *Network resilience guidelines – Consultation paper*, June 2026, p13.

⁵ UK Cabinet Office, [*Keeping the Country Running: Natural Hazards and Infrastructure*](#), October 2011, p14.

Case Study 1: The floods of 2021 and 2022

Communities served by Endeavour Energy experienced three significant flood events in the 16 months from March 2021 to July 2022. The main impact of these floods was on the Hawkesbury-Nepean river system, with communities experiencing an average electricity supply interruption of 22,945,770 customer minutes. The primary risks associated with overhead conductors during flood events result from the reduced clearance to live conductors. As such, Endeavour Energy proactively isolates power lines as water levels rise.

While this traditional approach addresses public safety risks (such as members of the public coming into contact with live conductors while moving through flooded areas using watercraft), it leaves communities without power which may impact communications, heating, food storage, and life support equipment.

As part of the 2024-29 regulatory submission, Endeavour Energy proposed raising specific overhead conductor spans above the flood height anticipated during the asset life and automating specific HV switches used for pre-emptive flood switching that were challenging to access.⁶

At the time of this proposal, the target locations were primarily identified by field staff who were involved in flood response incidents. However, improved flood model data and simulation technology (LiDAR digital twin) have allowed these locations to be validated and scoped for detailed design.

Compared to other weather-related hazards, floods typically cause long outages are much more location-specific and therefore somewhat predictable. It is the only natural hazard type that resilience programs would be clearly justified under a definition of resilience that is restricted to outages longer than 12 hours as to a principles-based method.

Case study 2: The 2019-20 bushfire season

Traditionally, bushfire risk mitigation investment was focussed on reducing the risk of ignition. In the Resilience space, there is a growing appetite to also include investment in programs to make the network less vulnerable to bushfires. While Endeavour Energy did not include a “pole hardening” program in the 2024-29 submission, Endeavour Energy conducted a pilot program for fire retardant pole wrap to reduce the number of poles that would be lost in a fire should one pass through.

During the “Black Summer Fires” (Dec 2019 – Jan 2020), the fires destroyed 2,448 homes and claimed 29 lives and caused significant damage to Endeavour’s electrical network. Interruptions to our distribution and transmission feeders during the height of the fires caused \$91.5 million of lost economic value to our customers, excluding the additional economic costs of loss of electricity supply amid a catastrophic bushfire situation. It is estimated that burned poles accounted for approximately 70% of the economic cost of the fire impact.

Data shows that the majority of poles lost in a fire are burned near the base of the pole and up to a height of 2 times the height of combustible material around the pole. As such, rather than trying to justify a program focussing on only concrete poles, Endeavour Energy chose to proactively install pole wrap and include spare material in strategic for “just in time” installations under a pilot program.

The impact of bushfires varies significantly per event. Cost-effective solutions such as pole wrap help minimise the scale and duration of outages for customers as a proactive measure; while replacement to concrete, steel, or composite poles can be more efficiently deployed as an end-of-life replacement measure.

⁶ Endeavour Energy, *Flood resilience of high voltage overhead conductors and switchgear – Case for investment FY23-FY29*, August 2022

Case study 3: Heat-related outages

Prior to FY21, most of the customer minutes of interruption associated with heat-related outages was allocated to the low voltage network. In the low voltage network, reactive replacement of blown fuses has historically been the most efficient remediation.

However, in recent years, we have been seeing a greater number of heat-related outages in the high-voltage distribution network. There is significant residential development in Western Sydney. Much of this area is lacking tree canopies, built predominantly with dark roofs, and generally fitted with air-conditioning to address the high temperatures. While compliant with NSW BASIX guidelines, these types of developments introduce highly concentrated load centres to the distribution network, leading to distribution feeders tripping on overload.

While the outages are still generally caused by blown fuses, albeit much larger ones, a single outage impacts a larger number of customers. Additionally, when these outages occur on a total fire ban day, they last significantly longer as bushfire safety procedures require that the entire feeder must be patrolled before it is reenergised.

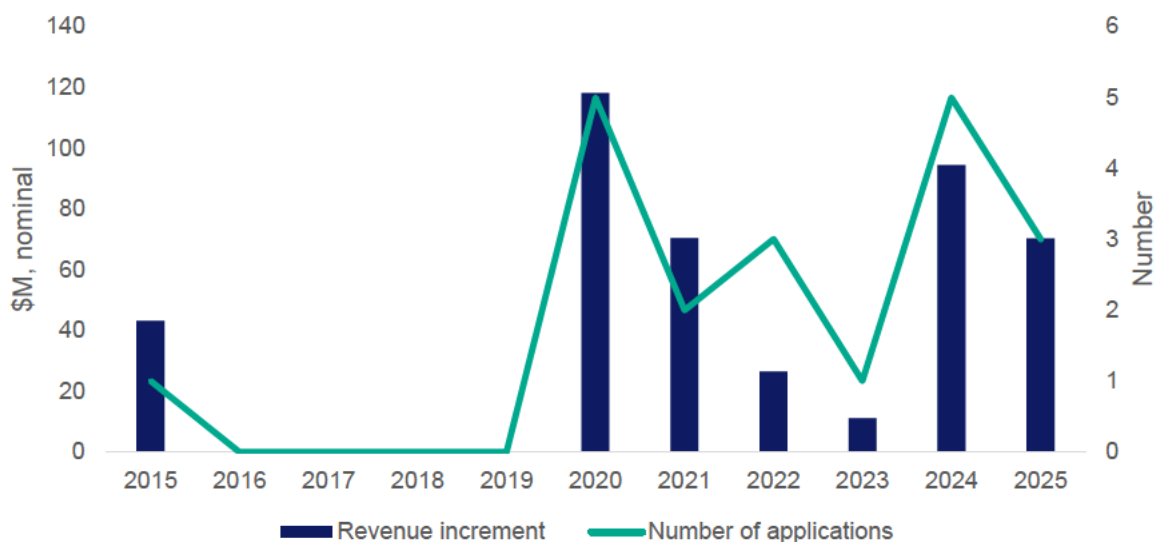
Asset investment to avoid these types of outages is a challenge due to the relatively low cost of fuses and high number of assets in the field; however, Endeavour Energy has been partnering with modelling and capacity management providers to improve the visibility of our low voltage and distribution networks to better locate constraints.

Principles-based guidelines for network resilience

Managing resilience can involve both proactive actions (such as improved use of data, planning standards, network hardening, vegetation management, and damage prevention) and reactive actions (such as system recovery, repairing the existing network to the same standard and/or building back better and survivability). Relevantly, network resilience is inextricably linked to community resilience and, as such, should factor in steps to assist affected communities who remain without power for extended periods with generators, community charging stations for electronic devices and branded community assistance vehicles.

Historically, ex-post mechanisms (i.e., cost pass-throughs) were traditionally relied on to manage network resilience events, and this can be explained, in part, by the regulatory framework. This can be observed in the increasing number of pass-through applications related to natural disasters over the past decade, with 19 of the 20 applications occurring within the last 6 years, as illustrated in Figure 1 below.

Figure 2: Natural disaster cost pass-through events across the NEM (2015-2025)



Source: Endeavour Energy analysis

At the same time, DNSPs started to propose resilience related capital expenditure in regulatory determinations as a separate and distinct category. Most notably, in the ACT/NSW/NT/TAS 2024-29 determinations, our analysis indicates that \$573 million (\$M; FY24) of resilience capex was proposed by the networks, of which \$386 million was approved – a 33% reduction. This represents the largest reduction to any category of proposed capex for the 2024-29 period.

We do not consider this outcome reflects a restriction within the regulatory framework on the AER's ability to assess, substitute and/or reject resilience related expenditure. Rather, it likely reflects that this area of spend is relatively new and is in response to the growing damage caused to networks and communities from climate change and extreme weather events. We expect that over time, as maturity in this area evolves, this discrepancy will reduce.

We believe that this reflects the importance of the AER's Guidelines in setting out clear principles on how it will conduct its resilience expenditure assessments. It is in the long-term interest of customers for DNSPs to strike an efficient and prudent balance between these preparatory and reactive options. We recommend that the AER's Guidelines include clarity on how it will accommodate pre-emptive or reactive resilience expenditure and promote efficient and prudent level of spend and service quality with respect to network resilience.

In particular, the industry would benefit from greater certainty regarding what constitutes efficient and prudent proposal with respect to resilience. Ultimately, the objective is not to eliminate risk altogether, but to improve the balance between acting too early and acting too late. An appropriately principles-based guideline, supported with flexibility to accommodate local DNSP and community needs, can better manage these trade-offs while continuing to protect consumers from bearing too much risk.

With that in mind, we recommend that the AER address the following matters in its Guidelines:

- the types of events, projects and classes of market benefits that can be considered as part of a network resilience case for investment;
- the scope of resilience-related activities a DNSP can include within an expenditure allowance. This clarity is important as our customers, government departments, other utilities and agencies are increasingly asking DNSPs to contribute more towards building network and broader community resilience, including sharing information and knowledge prior to the event, and in real-time as an event unfolds, to help minimise the impact on people and communities and help expedite recovery timeframes. Doing so will also help Government clarify where funding gaps may exist so that they can intervene where necessary;
- the process for determining the optimal timing of investments and balance between proactive and reactive actions; and
- the role and treatment of scientific climate modelling and determining its impact on incremental resilience expenditure. We note that different climate modelling, time periods and scenarios used can greatly vary the expenditure required.

Supporting information for resilience expenditure proposals and ongoing reporting

While we recognise that a template may be, at times, an effective means of collect standardised data, we do not think that this applies to resilience-related expenditure. There is variability in the criteria and assessment of resilience business cases to address specific hazards, so there is a risk that a standard resilience template will not suit all resilience investment proposals. We consider that it may be more useful to reevaluate the need, including cost and benefits, of a standardised template after the conclusion of the next set of regulatory reset cycles to enable more information, insights and experience to be captured from the experiences of those networks.

In a similar vein, we do not support annual reporting of resilience spend as this data point does not provide meaningful insights regarding the state of preparedness of a network and will

instead introduce additional administrative burden with limited benefit. Resilience investment is typically motivated by long-term trends, whereas each year may be subject to extreme weather events that exceed the anticipated severity, are not able to be practically addressed, are yet to be addressed, or occur before investments are made. Additionally, a requirement to report on annual resilience spend may lead to the community neglecting other important preparatory measures and give rise to a false sense of security, or inappropriate comparisons being made, resulting in confusion on the part of governments and stakeholders.

We request that the AER exercise caution in determining the type of information that should be made publicly available. There may be adverse outcomes if the exposure of the data creates concern in the community by highlighting a risk that was not previously discussed in a community, or conversely, result in a lack of preparation by creating a presumption that electricity supply resilience has been addressed by the DNSP, incorrectly implying that there is no need for further action by individuals, communities or businesses. In this context, we recommend that the disclosure of resilience related information should be at the discretion and the control of the DNSP, so that it is accompanied by the appropriate context and is delivered in an appropriate manner and to the right audience.

We note that the Australian Energy Market Commission's (AEMC) final rule includes annual resilience planning and reporting requirements for DNSPs in the Distribution Annual Planning Report (DAPR).⁷ We are concerned that an additional requirement for DNSPs to provide further granular operational and financial information and datasets through the annual information orders will create an unnecessary regulatory burden, with limited benefit arising from the provision of the data. Our views on the type and level of resilience elements to include in the DAPR are discussed further below.

Defining community resilience

The Consultation paper proposes that community resilience should be defined as:⁸

"The ability of communities to withstand and recover from the impacts of natural disasters"

We are supportive of the definition and agree with the AER that there are multiple resilience actors that need to coordinate and collaborate to contribute to community resilience. We have set out below a case study of where Endeavour Energy worked with various stakeholders to support community resilience for unexpected power outages.

We note that inquiries into the bushfires of 2019-20 and flood events between 2020-22 identified the community-critical role played by electricity networks. It is important that the AER recognises that our customers, other utilities and government stakeholders are increasingly requesting, and expecting, DNSPs to contribute more towards building network and broader community resilience.

As such, we recommend that the AER considers the introduction of a VNR weighting or separate community resilience value for community-critical loads to reflect the fact that not all customers connected to a section of network are of equivalent value to the community before, during, and following an extreme weather event.

Case study 4: Energy Charter's Better Together initiative on power outage planning

Endeavour Energy worked with Ausnet Services and the Energy Charter to lead a national Power Outage Plan campaign that equips Australians with the knowledge and tools to prepare for unexpected power outages, particularly during extreme weather events.

⁷ AEMC, [Rule determination – Including distribution network resilience in the NER](#), 8 May 2025, p35.

⁸ AER, Network resilience guidelines – Consultation paper, June 2026, p19.

We worked with a Lived Experience Panel, community voices and energy organisations to develop and launch www.poweroutageplan.com.au as a central resource hub for Australians seeking practical guidance on preparing for power outages, offering downloadable planning tools.

The public awareness initiative was launched through multiple channels to ensure all Australians know how to prepare for power outages before they occur, rather than reacting afterward. This campaign runs alongside the national [Life Support Power Outage Plan campaign](#) targeting people using medical equipment in the home. For more information, see: [Community Energy Resilience – The Energy Charter](#)

Customer and community engagement

Endeavour Energy is committed to embedding quality stakeholder engagement across our business to inform our actions and underpin our decisions, always placing our customers and communities at the heart of what we do.

We support the examples of the type of information that are useful in demonstrating that consumer preferences as listed in the Consultation Paper.⁹ We note that there is no one-size-fits-all approach to engagement. Genuine engagement is context-dependent and tailored to the needs of customers and communities, including how engagement outcomes are considered and balanced in resilience proposals.

Since 2019, Endeavour Energy's network has been subject to increasingly extreme heat events, megafires, extreme flooding events across the Hawkesbury Nepean Region and major east coast low and lightning storm events. Endeavour Energy has drawn on this experience to define the following characteristics of good engagement on network and community resilience, as detailed in Box 1 with supporting case studies below.

Additionally, in 2022, Endeavour Energy partnered with Essential Energy, Ausgrid, EvoEnergy, Power and Water and TasNetworks to develop a joint [consultation paper on network resilience](#) to help avoid consultation fatigue and to share learnings to drive improved approaches across each business. This joint consultation approach was used as the foundation to implement tailored engagement initiatives across each participating business.

Box 1: Characteristics of good engagement on network and community resilience

- 1. Define resilience clearly and distinguish it from reliability**
Networks must be clear about the differences between resilience and reliability for customers to be able to consider the costs and trade-offs needed for prudent and efficient investment in network resilience. Endeavour Energy's 2024-29 regulatory submission defines resilience as the ability to anticipate, withstand, quickly recover from, and learn from disruptive events, whereas reliability is about reducing the frequency and duration of outages.¹⁰ Good engagement should therefore explain this distinction clearly, so stakeholders understand what is being discussed and what trade-offs are involved.
- 2. Use co-design rather than one-way consultation**
Endeavour Energy's preferred engagement model is co-design, described as stakeholders working collaboratively to develop solutions, rather than simply being consulted after options are formed. For resilience topics, this suggests engaging customers and stakeholders early enough that they can shape priorities, options and trade-offs. We include below an example of where Endeavour Energy partnered with various stakeholders to co-design and co-deliver NSW's first community microgrid.

⁹ AER, Network resilience guidelines – Consultation paper, June 2026, p18-19.

¹⁰ Endeavour Energy, *Endeavour Energy Resilience Strategy*, December 2022, p4.

3. **Match the level of engagement to the stakeholder's ability to influence the decision**
Good engagement uses the [IAP2 Public Participation Spectrum](#) to explicitly map topics according to the extent to which customers and stakeholders can influence outcomes. A sound principle for resilience engagement is therefore to be transparent about whether stakeholders are being informed, consulted, involved or asked to collaborate.
4. **Be transparent about trade-offs, especially affordability versus resilience.**
Transparency is critical when engaging with communities' resilience proposals. This includes the nature of the problem, the range of solutions available, their costs and effectiveness, and the impact on different customer and community groups, including current and future customers. Importantly, there is consistent tension between improving resilience and maintaining value for money, which is more pronounced within the recent cost-of-living pressures. Good resilience engagement should therefore explain costs, alternatives, consequences of doing more or less, and how choices affect customers.
5. **Provide evidence for resilience investments**
Increased focus on network resilience should be justified by appropriate evidence. A good engagement principle is therefore to present the evidence base clearly. For example, climate risk, disruptive-event trends, customer experience, and the expected impact of options.
6. **Engage broadly and deeply**
Genuine customer engagement also requires breadth and depth of engagement, consistent with the AER's [Better Resets Handbook – Towards consumer-centric network proposals](#). For resilience, this means combining broad input from a diverse cross-section of customers with deeper deliberation among informed stakeholder groups. This includes engagement with emergency services agencies, regulators, lived-experience panels of customers, local government and state members of Parliament, business groups, industry associations, other electricity networks and well-segmented customer groups.

For example, Endeavour Energy has partnered extensively with the Energy Charter, NSW Reconstruction Authority, NSW Department of Energy, Environment, Climate Change and Water, Western Sydney Regional Heat Taskforce, the Committee of Sydney, Business Western Sydney and Western Sydney Regional Organisation of Councils, Illawarra Joint Organisation of Councils and technology start-ups like NEARA, to collaborate on resilience initiatives.
7. **Use multiple channels and tailored methods**
Endeavour Energy's engagement approach includes customer panels, reference groups, stakeholder deep dives, forums, workshops, website channels, social media, local council engagement, and targeted meetings. A good resilience engagement program should not rely on one format; it should use channels suited to the audience and topic.
8. **Be inclusive and remove barriers to participation**
Good engagement should also design fit-for-purpose engagement for culturally and linguistically diverse communities, Aboriginal and Torres Strait Islander consumers, vulnerable customers, councils, large energy users, and others who may not engage effectively through standard channels. A resilience engagement principle should therefore require inclusive design and remove barriers to participation removal.
9. **Make information accessible and understandable**
Endeavour Energy's Customer Panel findings showed that participants valued difficult information being explained in ways they could understand and wanted clear, easy-to-understand educational materials. For resilience engagement, technical, regulatory and investment information should therefore be translated into accessible language.
10. **Be iterative and responsive over time**
Engagement models that use iterative and deliberately adaptive processes work best. Endeavour Energy's [2024-2029 Revised Regulatory Proposal](#) added a "Confirm" phase specifically to test whether customer views had shifted over time. For resilience, this supports a principle of revisiting assumptions and checking whether stakeholder preferences are changing as conditions change.
11. **Close the loop and show how feedback changed decisions.**
The AER's Better Resets approach and the evaluation tables in Endeavour Energy's [2024-](#)

[2029 Regulatory Proposal](#) both emphasise feedback loops, accountability and clearly evidenced impact.¹¹ A strong resilience engagement principle is therefore to show stakeholders what was heard, what changed, what did not change, and why.

12. Ensure senior leaders are visible and accountable in the process

Endeavour Energy's approach explicitly highlights Board, CEO and Executive participation as a positive feature of engagement. Our [Customer Panel Report](#) for the 2024-2029 Regulatory Reset also notes that participants valued direct access to the executive team.¹² For resilience issues, visible leadership helps demonstrate seriousness, accountability and willingness to listen.

13. Respect different stakeholder segments and contexts

Endeavour Energy notes that different groups have different needs, levels of knowledge, time constraints and capacities to engage. Good resilience engagement should therefore segment audiences rather than assume one message or method will suit everyone.

14. Collaborate across the sector where topics are shared

As noted above, Endeavour Energy collaborates with other networks and agencies on common issues, including resilience. A sound principle for network resilience engagement is therefore to coordinate where possible to reduce stakeholder fatigue and support coherent discussion of shared challenges.

Case study 5: Co-designing to create a renewable, reliable and resilient energy community – Bawley Point and Kioloa Microgrid

At Bawley Point and Kioloa on the NSW South Coast, Endeavour Energy partnered with over 500 local residents, community groups, suppliers, emergency agencies, Council and Government to co-design and deliver the state's first community microgrid, transforming traditional ways of planning electricity grids to create a renewable, reliable and resilient energy future. After the devastating 2019-2020 bushfires left 1500 residents without power for ten days, the Bawley Point leadership group welcomed Endeavour Energy's invitation to work with local, state and federal Government, emergency services, business and community members to explore options for more resilient, reliable and renewable energy. NSW's first community microgrid was launched in December 2023 by NSW Minister for Energy, Penny Sharpe, marking a significant step in the transition to renewable energy.

This effective partnership created a microgrid featuring a 3MW grid connected battery, coordinated with about 200 home battery and solar systems, with the help of a Virtual Power Plant (VPP) that controls, tracks and forecasts the microgrid's performance. The microgrid acts as an island when the power goes out, providing uninterrupted power to customers' homes. The 18-month engagement journey showed a remarkable change in community sentiment, from doubt at the first face-to-face workshop, to trust and acceptance of the technology and enthusiastic involvement in the design of the microgrid.

Community benefits include lower energy bills, improved reliability, more control over how electricity is used and more resilient and confident community. Importantly, it met the community's desire to reduce its environmental impact and ensure that no-one would be left behind in the energy transition. The project also led to cultural change within the business by demonstrating that community engagement is a powerful force for good. It helped this community 'build back better' and helped Endeavour Energy learn how to do this well, and at speed. To that extent, it has been an incubator for positive community and cultural change. It has also shown other networks how and why customer centrality matters in the energy transition. It's our blueprint for future NSW microgrids in remote communities seeking a more reliable, renewable and resilient energy future.

¹¹ Endeavour Energy, [Regulatory Proposal 2024-2029](#), January 2023, pp 83-86.

¹² Endeavour Energy and SEC Newgate Australia, [Endeavour Energy Customer Panel, Revenue Reset \(2024-2029\), Final Report – Waves 1,2 and 3](#), October 2022, p 129

The quality of customer engagement and human centred design saw this project awarded the Energy Networks Association 2024 Customer Engagement Award.

New resilience elements in the Distribution Annual Planning Reports

The AEMC's final rule determination requires that DNSPs meet new annual planning and reporting requirements for resilience in the annual DAPR, including (but not limited to):¹³

- identifying risks of power outages for their customers caused by severe weather events, taking into account the impacts of climate change;
- performance of the DNSP and outcomes for consumers in any severe weather events that occurred in the preceding year; and
- The amount and nature of the DNSP's resilience expenditure which occurred in the preceding year (if any), and its planned resilience expenditure in the forward planning period.

DNSPs must comply with these new annual planning and reporting requirements starting with their 2028 DAPRs.

As mentioned above, we request that the AER exercise caution in balancing transparency and audience capacity when determining the type and scale of information that should be included in the DAPR. The communication of risk is challenging, particularly in regard to high impact but low probability weather events.

In this context, we recommend that the risk identification component of the DAPR should adopt a more qualitative approach. For example, performance outcomes for any severe weather events experienced during the year being reported in terms of outage duration and response time.

With respect to the expenditure reporting component of the DAPR, we recommend that resilience expenditure should include a comparison between forecast and actual expenditure by natural hazard type, along with forecast expenditure for the next year, by natural hazard type. Additionally, we recommend that all resilience reporting should be through the DAPR alone and not collected through annual information orders to avoid risk of duplication.

We note that there is the AEMC is currently preparing the final rule and determination on *Enhancing Distribution Network Planning and Reporting* that will replace the existing DAPR with a new Distribution Network Development Plan (DNDDP).¹⁴ Under the draft rule determination, DNSPs are required to develop the first DNDDP with their next regulatory proposal. For Endeavour Energy, this means the December 2027 DAPR will be replaced by the first DNDDP in January 2028. We seek confirmation from the AER and AEMC that the new resilience requirements will not be required for Endeavour Energy's first DNDDP, but in the first annual update to the DNDDP (i.e., January 2029).

Lastly, we recommend that the AER work closely with the AEMC to consider any transitional arrangements that may be required to facilitate enhanced data reporting while minimising confusion, duplicated reporting and data requests and regulatory burden.

Addressing resilience expenditure in incentive schemes

While it is acknowledged that resilience investment can have a benefit to reliability, not all resilience investments will have a guaranteed benefit in all situations. For example, a program

¹³ AEMC, [Rule determination – Including distribution network resilience in the NER](#), 8 May 2025, p v.

¹⁴ AEMC, [Draft rule determination – Enhancing distribution network planning and reporting](#), 23 April 2026.

of lifting low overhead spans to improve flood clearance will only provide a benefit in the event of a future flood, not in the context of all adverse weather events. Similarly fire mesh wraps on timber poles to reduce the impact of a future bushfire may reduce outage time in the event of a bushfire impacting a particular area but will not provide a benefit during other adverse weather events.

We note that there is a Major Event Day (**MED**) exclusion to reliability performance to recognise the uncontrollable nature of these impacts, and there is an expectation that resilience investment is entirely focused on long duration outages that occur as a result of extreme weather impacts to networks. Consequently, there is an argument that pure resilience expenditure would not result in a significant change to normalised reliability performance.

There is a risk of creating a disincentive to resilience investment if that results in a punitive modification to incentive scheme settings. Considering the complex relationship between resilience investment and reliability improvement it is arguably impossible to account for the contribution from resilience. In this context, we are not supportive of including resilience expenditure in the incentive schemes.