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Andrew Pirie
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Dear Mr Pirie

Ausgrid response re Including Distribution Network Resilience in the NER

Ausgrid welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) Consultation Paper on the Victorian Minister for Energy and Resources' (**the rule change proponent's**) rule change request to include a formal framework for distribution network resilience expenditure in the National Electricity Rules (**NER**).

Ausgrid operates a shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

Climate related events are increasing in frequency and severity, which is impacting the resilience of Ausgrid's network and the ability of our communities to withstand and recover from them. Over the 15-year period to FY2023, only 12 percent of outages across Ausgrid's overhead network were caused by climate events but were responsible for 62 per cent of customer downtime. Despite this, distribution network service providers (**DNSPs**) face uncertainty over their network resilience expenditure due to the absence of formal and detailed guidance in the NER on how to prepare proposals for resilience expenditure, and on how the Australian Energy Regulator (**AER**) will assess them. This uncertainty creates additional risks for customers, as it limits our ability to address the increasing threat of climate change and long-duration outages.

While we strongly support the intent of this rule change and the need for action, we consider that targeted amendments to the proposed rule would better address the existing barriers and gaps within the NER and meet the National Electricity Objective (**NEO**). In our detailed response at **Appendix A**, we ask the AEMC to consider making a more preferrable draft rule which:

1. Includes an additional clause at 6.5.6(6) and 6.5.7(6) of the NER to the Capital and Operating Expenditure Objectives which would require DNSPs to include expenditure in their regulatory proposals to:

   (6) Prepare for the impacts of catastrophic events and severe weather events through the supply of standard control services

2. Removes or relocates references to 'cost pass throughs' in the proposed new resilience expenditure factors.
3. Requires the AER to specify, in its Resilience Expenditure Guidelines, the type of events, projects and benefits that it can consider in its assessment of resilience

expenditure proposals. In relation to identified benefits, the AER should be required to provide further guidance as to how DNSPs should quantify each benefit.

4. Requires the AER to explain how resilience expenditure is expected to interact with incentive schemes and the reliability investment framework, and how its assessments will take into account jurisdictional policies and frameworks relating to resilience.
5. Requires the AER to consult with key stakeholders such as DNSPs, Governments and other regulatory bodies, in the preparation of its Resilience Expenditure Guidelines for network resilience.
6. Places an obligation on the AER to consider the latest scientific modelling and methods in its assessment of resilience expenditure proposals.
7. Establishes an independent expert panel to support the AER in the assessment of climate change and network impact modelling. The AER's Resilience Expenditure Guidelines should be required to set out details about the Panel and how its advice will be relied on for the assessment of resilience expenditure proposals.

We welcome the opportunity to further discuss our submission with the AEMC and to stay closely engaged as this rule change progresses. Please contact Emma Vlatko, Senior Policy Advisor at Emma.Vlatko@ausgrid.com.au for further information.

Yours sincerely,

Tim Jarratt
Group Executive Market Development & Strategy

Appendix A: Ausgrid detailed response

The rule change proponent has submitted a rule change request to the AEMC seeking two specific amendments to the NER: the inclusion of new Capital and Operating Expenditure Factors and the establishment of binding Resilience Expenditure Guidelines. Ausgrid has structured our response below to align with these two rule change components, which we consider distinct yet complementary issues:

1. Existing **barriers and gaps within the NER**
2. Issues affecting the **consistent application of the NER**.

Overall, Ausgrid strongly supports the intent of this rule change. The five issues identified by the rule change proponent have material impact on DNSPs and their ability to take proactive action to address the increasing threat of climate change and long-duration outages for customers within their networks.

In our 2024-29 regulatory proposal, Ausgrid sought $120 million for the first five years of a 25-year resilience work plan. Development of this proposal was a major undertaking for our business. Considerable investment was made in new modelling tools, expert advice from climate scientists and deliberative forums with more than 100 customers. We believed we had met all regulatory requirements and had submitted modelling and investment analysis that showed clear customer benefits. Despite this, the AER's final determination approved just one third ($41 million) of our proposed program. In coming to this finding, the AER acknowledged "Ausgrid's efforts to adhere to our network resilience guidance note [and] appreciate that Ausgrid has undertaken an extensive and ambitious customer engagement process in a new area of expenditure'.[1] This suggests that there was a material difference in our interpretation of the AER's expectations and what those expectations turned out to be upon receiving our final decision, reinforcing our belief that more formal guidance for DNSPs is needed before expenditure proposals are prepared.

In our response below, we have provided select examples from this experience that reinforces the materiality of many of the issues identified by the rule change proponent. Our recent experiences demonstrate that further work is required by the AEMC to refine a more preferable draft rule so that it better addresses these issues, the AEMC's stated assessment criteria, and the NEO. We make seven recommendations for a more preferrable rule for the AEMC's consideration.

We would also like to acknowledge the work by the AER to date to develop an interim Value of Network Resilience (**VNR**), and we look forward to participating in their process to develop a longer-term methodology next year. The VNR methodology will help DNSPs to better quantify the cost of long-duration outages of 12 hours or more. The costs of these outages have to date been quantified by using the Value of Customer Reliability (**VCR**), which is only designed to quantify shorter duration outages.[2] However, while these two methodologies go some way to improving the consideration of expenditure required to maintain resilience against both short and long duration outages, we consider it does not resolve all the uncertainties in how resilience expenditure generally is considered or negate the need for this rule change.

1. The NER limits appropriate action to address climate change resilience

The rule change proponent has proposed the inclusion of a new Capital Expenditure Factor and Operating Expenditure Factor in Chapter 6 of the NER. The purpose for these Factors is, in large part, to establish an obligation on the AER to consider resilience.

Ausgrid agrees with the intent behind this rule change and accepts that, if made, it would fill an existing gap within the NER. Although we acknowledge the AER already considers DNSPs' resilience proposals, the establishment of a clear obligation on the AER in the NER follows the principles of good regulatory practice in that it promotes predictability, stability and transparency.

1 AER, Final decision: Ausgrid 2024-29 determination, April 2024, p. 7
[2] Note: long-duration outages (longer than 12 hours) are deliberately outside the scope of the VCR

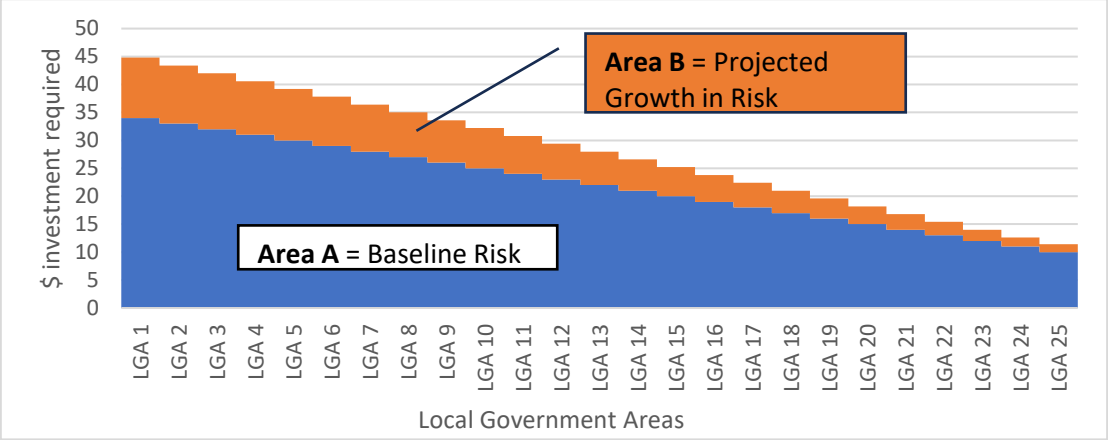
However, the rule change request notes that "the electricity network is increasingly vulnerable to severe weather events due to climate change" and that "DNSPs and the AER need to be more proactive in addressing *future* threats." While we strongly agree with these sentiments, we do not believe the proposed drafting in the rule change request overcomes the existing barriers within the NER which would enable a more proactive approach to addressing climate change threats. This is because the proposed rule would not amend the term "maintain" in the Capital and Operating Expenditure Objectives at clauses 6.5.6(3) and 6.5.7(3) of the NER. These Objectives govern what outcomes DNSPs must seek to achieve in developing their regulatory proposals and require DNSPs:

> *(i)* ***maintain*** *the quality, reliability and security of supply of standard control services; and*
> *(ii)* ***maintain*** *the reliability and security of the distribution system through the supply of standard control services*[3]

We consider the requirement to "maintain" the quality, reliability and security of standard control services and the distribution system in the Capital and Operating Expenditure Objectives had a significant impact on the consideration of Ausgrid's resilience expenditure for the 2024-29 regulatory period. In particular, we consider the application of these Objectives effectively prevented the approval of efficient investments to address climate change threats for customers over the long term.

In our proposal, Ausgrid sought to quantify the level of investment required to *maintain* current service levels across our whole network to 2050. To do this, we started by modelling our 'baseline risk' across our network and then applied risk growth factors informed by accepted climate forecasts. **Figure 1** provides a conceptual demonstration of this. Area B in orange shows the amount of risk growth per a local government area (**LGA**) over a set period thereby representing the amount of risk growth that would need to be mitigated to maintain overall risk.

Figure 1: Projected risk growth due to climate risk across Ausgrid network



Ausgrid considered it impractical and inefficient to invest in every LGA / feeder to reduce risk in perfect alignment with the projected growth in risk to our overall network over the five-year regulatory period. To ensure the efficiency and deliverability of our investments we instead proposed a longer term, staged work program. The first five years of which would see investment allocated to the LGAs / feeders where customers valued investment the most and delivered an overall positive cost benefit, even where some investments were brought forward ahead of risk growth. This approach was supported by consultation with our customers and reflected their expectations and willingness to pay.

However, while the AER recognised our "extensive customer engagement especially at the local community level and with the wider community to determine their support for localised resilience outcomes"[4], in its final determination, the AER applied the *maintain* objectives at the feeder level:

[3] clauses 6.5.6(3)(iii) and (iv) and 6.5.7(3)(iii) and (iv), National Electricity Rules
[4] AER, Final Decision Ausgrid Electricity Distribution Determination 2024 to 2029 (April 2024), pg 22

"We assessed Ausgrid's forecast investments which are at the feeder level against the historical outages associated with each feeder for the past 11 years (2012 to 2022). Our expectation is that a prudent operator would prioritise investment based on high failure rates in combination of the amount of total value of unserved energy (VoUSE), and only invest when there is confidence that the Benefit to Cost Ratio (BCR) is net positive at a feeder level."[5]

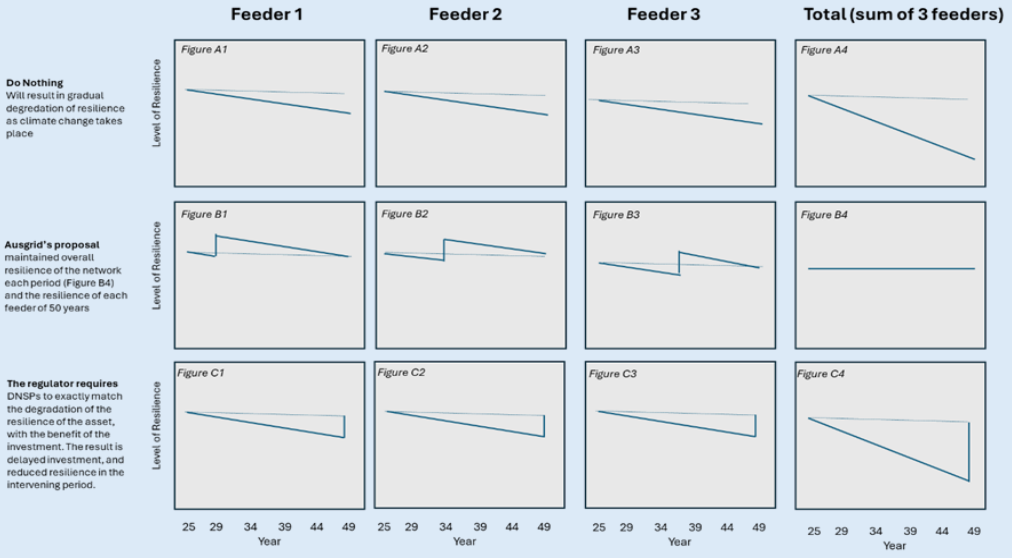
Below are two examples from the Ausgrid's 2024-29 regulatory determination process where the differing use and application of the term *maintain* resulted in decisions which we consider are inconsistent with the intent of this rule change request for DNSPs and the AER to take a more proactive role in addressing climate change threats.

Example 1: Measuring "maintain" over different time horizons

Consistent with the Capital and Operating Expenditure Objectives described above, in our 2024-29 Regulatory Proposal, Ausgrid sought funding for the first five years of a 25-year wind resilience program aimed at *maintaining* current service levels across the network to 2050. Efficient and practical delivery of this type of long-term investment requires the program to prioritise some feeders for investment first, temporarily improving their reliability in the near-term (for example, within the five-year regulatory period assessed by the AER), but *maintaining* their performance over the longer-term (to 2050). These targeted improvements were consistent with the modelled whole-of-network maintenance program.

This concept is demonstrated in **Figure 2** below. In Ausgrid's proposal in row 2 of the figure, temporary improvements to resilience return to baseline performance over time, investments across feeders can be efficiently managed over the long term, and worsening customer impacts are largely avoided.

Figure 2: Alternative options to addressing resilience performance



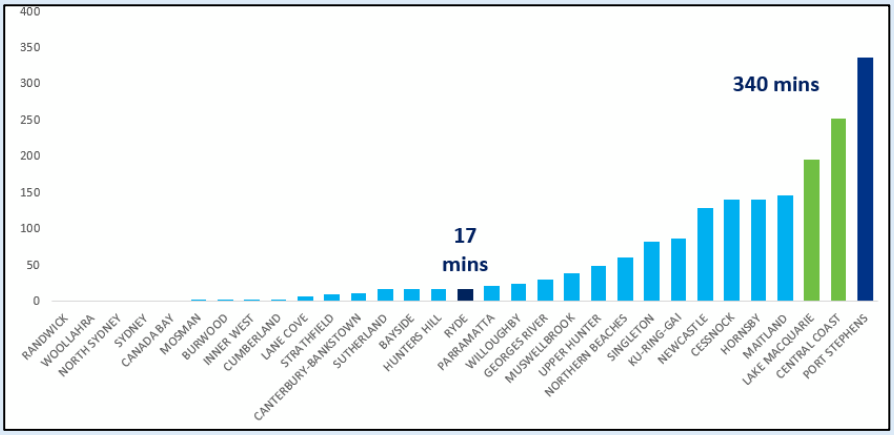
Because our investments were assessed over the five-year regulatory period, these temporary improvements in prioritised areas (see Example 2 below) did not squarely fit within the requirement to *maintain* network performance at a feeder-by-feeder level in the five-year period and could not be accepted by the AER. This mismatch in how investments must be assessed and the way they can be practically undertaken, makes it very difficult for DNSPs to make proactive investments that would protect against emerging threats, even where it is more efficient to do so for customers over the long term.

[5] AER, Final Decision Ausgrid Electricity Distribution Determination 2024 to 2029 (April 2024), pg. 24

Example 2: Measuring "maintain" spatially

Across Ausgrid's network area, customers experience a wide range of network service levels (see **Figure 3**), driven by historical investment patterns, geography (e.g. vegetation density) and exposure to climate events. We consider the application of *maintain* under the existing Expenditure Objectives impacts a DNSP's ability to deliver allocative efficiency and is entrenching inequalities, despite customers asking us explicitly to address these and invest in the most vulnerable and most impacted areas first.

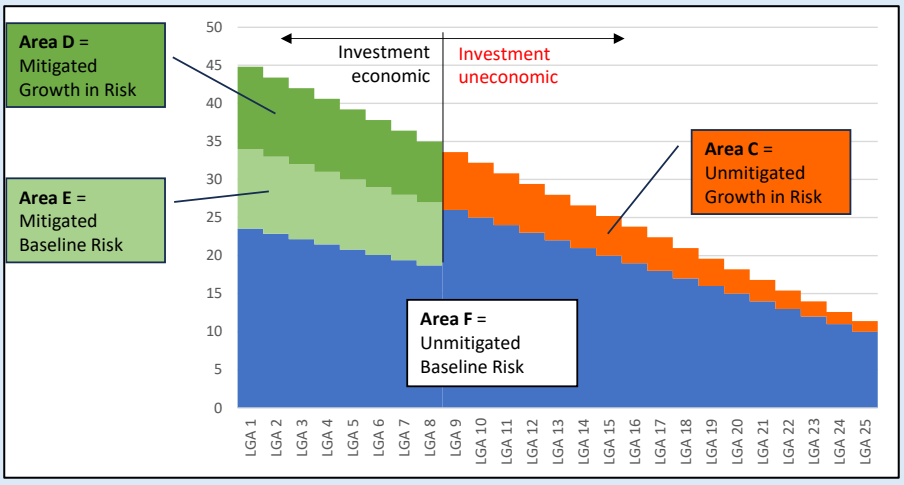
Figure 3: Duration of outages a customer typically experiences in a single year from climate events



In our 2024-29 regulatory proposal, Ausgrid proposed to allocate its resilience investment to those in our network who value it most - Lake Macquarie, Central Coast and Port Stephens. These areas are disproportionately impacted by climate events. The average customer in Port Stephens typically experiences 340 minutes of outages in a single year, compared the median LGA, Ryde at just 17 minutes. These three areas also negatively over-index on measures of socio-economic disadvantage and advantage, compounding the impact of prolonged outages and customers' capacity to withstand and recover from extreme events.

Our strategy (demonstrated conceptually in **Figure 4)** delivered an *overall* maintenance of resilience across the Ausgrid network but brought forward investment in targeted vulnerable areas. Priority LGAs achieve risk mitigation in both growth and baseline risk in the short term (light and dark green), while others experience deteriorating risk (shown in orange). Over the 25-year work program, all LGAs are expected to return to baseline risk.

Figure 4: Conceptual demonstration of Ausgrid's spatial targeting approach for 2024-29 regulatory period



We consider that amendments to the Capital and Operating Expenditure Objectives are needed to enable the AER to consider resilience expenditure proposals that seek to proactively address and prepare for the increasing impact of climate change on a DNSP's network and for their customers. We therefore strongly encourage the AEMC to consider making a more preferable rule that includes an additional clause at 6.5.6(6) and 6.5.7(6) of the NER to the Capital and Operating Expenditure Objectives which would require DNSPs to include expenditure in their regulatory proposals to:

> *(6) Prepare for the impacts of catastrophic events and severe weather events through the supply of standard control services.*

The inclusion of this additional Objective would then require the AER to approve this proposed expenditure where the AER considers it is efficient and prudent.[6] This proposed new Objective aligns to the language and intent in the rule change request but would remove a barrier which we consider fundamentally limits the operation of the proposed Factors the AER must consider when assessing a DNSP's regulatory proposal.

We note the proposed rule changes may have implications for the Service Target Performance Incentive Scheme (**STPIS**). The rule change proponent has already anticipated this and recommended the AER's Guidance Note provide clarity as to how resilience expenditure is expected to interact with incentive schemes. We strongly agree that these implications be considered as part of the AER's Resilience Expenditure Guidelines.

Recommendation One: The AEMC should make a more preferrable draft rule to include an additional clause at 6.5.6(6) and 6.5.7(6) of the NER to the Capital and Operating Expenditure Objectives which would require DNSPs to include expenditure in their regulatory proposals to:

> *(6) Prepare for the impacts of catastrophic events and severe weather events through the supply of standard control services.*

With more specific regard to the draft Factors proposed by the rule change proponent, Ausgrid is overall supportive of their inclusion in the NER. We note the AER must have regard to the Factors when deciding if it is satisfied the forecast expenditure reasonably reflects the expenditure criteria. The proposed specific reference to a DNSP's ability to "*prepare efficiently to resist, manage during, or recover from catastrophic events and severe weather events*" in the Factors will help formalise how the electricity sector as a whole accounts for the likely future impacts of climate change on safety, security and reliability outcomes for consumers.

However, we strongly recommend the removal of the reference to 'cost pass throughs' in the drafting proposed by the rule change proponent, as shown below.

> *the benefits and costs of providing the expenditure as part of forecast capital expenditure ~~or as a cost pass-through~~*

Ex-post mechanisms, like cost pass-throughs, do not deal with customer impacts of resilience and can only deal with the cost of repairing damage to a DNSP's network. We agree with the rule change proponent that cost pass-throughs do "not provide any protection to customers from these substantial costs they incur following significant outages".[7] This is a substantially narrower set of benefits than ex-ante investments that, in addition to preventing physical damage to network infrastructure, can improve safety (e.g. loss of human life) and reduce estimated unserved energy. This narrower scope is by deliberate design. Cost pass-throughs are intended as cost insurance for DNSPs rather than as the primary (or alternate) method for managing the broader suite of risks associated with severe and catastrophic events.

[6] NER, clauses 6.6.6(c) and 6.5.7(c) 'capital and operating expenditure criteria'
[7] Victorian Minister for Energy and Resources, Rule change request to account for resilience in the National Electricity Rules capital and operating expenditure factors, 30 July 2024

We are concerned that the drafting proposed establishes a false equivalency between ex-ante and ex-post investments, which could skew investment analysis in a way that is not in the long-term interests of customers. Given they address a different set of risks (ex-ante investments primarily seek to mitigate customer risks, where ex-post costs and their associated pass throughs are exclusively concerned with mitigating a network operator's financial risk) we feel it would be very difficult for the AER to compare the efficiency and prudence of an ex-ante investment against future, hypothetical scenarios where catastrophic events result in ex-post costs and a pass throughs. This could create a perverse outcome where cost pass throughs, because of their narrower scope, appear more efficient thereby making it harder for DNSPs to secure ex-ante investment and increase networks' reliance on ex-post funding. This outcome would directly contradict the intent of the rule change request, to reduce the reliance on cost pass-throughs for managing resilience. If the AEMC considers some reference to cost pass-throughs in the proposed new Factors is required, we recommend it be separated out in from the reference to forecast capital expenditure to address this risk and clarify the AER's assessment process.

Recommendation Two: The AEMC should make a more preferrable draft rule to remove or relocate references to 'cost pass throughs' in the proposed new resilience expenditure Factors.

2. The AER needs more support to assess resilience expenditure proposals consistently and in a way that reflects both the latest scientific thinking and community expectations

The rule change proponent has proposed that the AER be required to prepare and publish formal Resilience Expenditure Guidelines. This would replace the existing 2022 Guidance Note on Network Resilience. The purpose of formalising Resilience Expenditure Guidelines through an amendment to the NER is to directly address the uncertainty for DNSPs caused by the absence of detailed instructions.

In the AER's final decision on its interim Value of Network Resilience released in September 2024, the AER noted its intention to update its non-binding Guidance Note on Network Resilience in the near term. While we welcome this commitment from the AER, we support the intent of this rule change request to formalise Resilience Expenditure Guidelines in the NER to improve consistency and certainty in the resilience expenditure assessment process.

We agree with the rule change proponent that, without a supporting formal framework, there has been inconsistency in the treatment of resilience-related funding. For example, in our 2024-29 regulatory determination process, while the AER broadly supported our bushfire resilience proposals, our wind resilience proposals required significantly more extensive modelling and discussion with AER representatives.

For this reason, we consider the AEMC should create a more preferrable rule that requires the AER, through its Resilience Expenditure Guidelines, to provide certainty as to how DNSPs should approach their resilience expenditure proposals and how the AER will assess them. This certainty should be provided by specifying requirements for the AER's Resilience Expenditure Guidelines in the NER. If the AEMC determines not to proceed with this element of the rule change, we would seek to have these matters addressed through the updated non-binding Guidance Note on Network Resilience.

DNSPs currently do not have certainty as to their role and responsibilities in relation to resilience activities. While the total electricity system is the assumed boundary for the AER to consider the costs and benefits of expenditure proposals, the NEO places a requirement on the AER to make distribution determinations that deliver efficient outcomes to the benefit of electricity consumers in the long term. We consider it important for the rule change to place an obligation on the AER, though the Resilience Expenditure Guidelines, to provide clarity as to the roles and responsibilities it considers DNSPs have on this issue.

We therefore agree with the rule change proponent that the AER's Resilience Expenditure Guidelines should include a non-exhaustive list of

- circumstances that could be classified as a catastrophic and severe weather event, and
- example projects or programs that could be included within a DNSP's resilience expenditure proposal.

To further alleviate confusion around a DNSP's role and responsibilities, we recommend the AER Resilience Expenditure Guidelines also include a list of non-exhaustive benefits that the AER can consider and guidance for DNSPs as to how these benefits can be quantified. The 2022 Distributed Energy Resources Expenditure Guidance Note[8] is an example of how this guidance could be provided.

This additional requirement for the AER to provide guidance on 'eligible' benefits is important because both DNSPs and Government decision makers are operating in a complex environment with overlapping critical infrastructure and stakeholder needs. We recognise that it may be more appropriate for certain critical electricity network resilience investments to be progressed through the VCR or reliability frameworks, for example in managing increasing faults and short-duration outages from climate change. It may also be more appropriate for some resilience activities to be funded directly through Government. Regardless, consumers do not instinctively delineate between energy sector terms such as "network resilience", "reliability" and "community resilience".

In order to support a collaborative, systems-based approach to resilience, we consider the AER needs to provide explicit guidance on the types of investments DNSPs can undertake through the resilience expenditure determination process. This will not only support DNSPs in their proposals but also help Government decision makers identify resilience activity gaps that they may need to prioritise and potentially fund.

For example, with regard to the issue of urban heat, a lack of clarity around the roles of different stakeholders is stalling solutions and impacting consumer outcomes. Heatwaves are responsible for more human deaths than any other natural hazard[9]. Increasing urban canopy coverage is one tactic to address this hazard and the NSW Government has introduced a 40% urban canopy coverage target by 2036[10]. However, this solution poses a risk to existing street level DNSP assets and conflicts with Ausgrid's vegetation management protocols. Resolving this conflict would require upgrading Ausgrid assets with technologies that could withstand denser canopies (ie aerial bundled cable).

Our customers expect this work to happen and see Ausgrid, as the asset owner, as responsible for delivering it. But we have not been able to fund activities to protect and increase canopy cover because the economic and community benefits, such as avoided health costs, do not clearly fall within what can be assessed by the AER under the NER. There is also no clear funding pathway for Government to fill this gap. Local Governments, who are responsible for delivering the urban canopy coverage target, have limited resources to invest in these upgrades; while government grants, such as the Federal Government's Disaster Risk Reduction Fund, currently exclude privately owned businesses so cannot be accessed by many DNSPs for these programs.

Clear and explicit guidance on the types of resilience investments DNSPs can make, and eligible benefits, will go a long way to setting expectations for everyone involved in tackling these issues and developing credible pathways to unlock investment.

[8] AER, Final DER Integration Expenditure Guidance Note (2022)
[9] AdaptNSW, Climate Change Impacts on Heatwaves
[10] DPE (2023), Greener neighbourhoods.

Recommendation Three: The AEMC should make a more preferrable draft rule to require the AER to specify, in its Resilience Expenditure Guidelines, the type of events, projects and benefits that it can consider in its assessment of resilience expenditure proposals. In relation to identified benefits, the AER should be required to provide further guidance as to how DNSPs should quantify each benefit.

We also do not consider resilience can be considered in isolation. As noted above, we agree with the intent of the rule change request that the AER will need to examine a number of interdependencies, such as incentive schemes or reliability investment frameworks under the NER, when assessing resilience expenditure proposals. We consider that the AEMC should make a more preferrable rule that also requires the AER to explain, through its Resilience Expenditure Guidelines, how its resilience expenditure assessments will interact with, and take into account, legislative and regulatory obligations on DNSPs relevant to resilience work programs. For example,

- The *Security of Critical Infrastructure Act 2018* (Cth) requires critical infrastructure providers, as far as reasonably practicable, to minimise and mitigate material risks to their networks, including those exacerbated by climate change.
- Under the *Australian Sustainability Reporting Standard S2: Climate-Related Disclosures*, DNSPs are required to disclose information about climate-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term. To fulfill this obligation, DNSPs are essentially required to quantify the climate risks to their network.

Jurisdictions are also each progressing their own climate resilience and adaptation policy frameworks. These policies may not impose specific obligations on DNSPs to undertake certain activities, they may instead provide guidance to local critical infrastructure providers as to how these issues should be considered in decision making. For example, the NSW Reconstruction Authority, through the NSW State Disaster Mitigation Plan, defines infrastructure resilience. The supporting Disaster Adaptation Plans, which are still being developed, may encourage NSW critical infrastructure providers to undertake certain risk reduction activities consistent with this definition, which may have implications for the investments NSW DNSPs undertake.

Recommendation Four: The AEMC should make a more preferrable draft rule to require the AER to explain how resilience expenditure is expected to interact with incentive schemes and the reliability investment framework, and how its assessments will take into account jurisdictional policies and frameworks relating to resilience.

To further support consideration of interdependencies, the AER should undertake genuine and meaningful engagement in developing its Resilience Expenditure Guidelines. Ausgrid does not consider the *standard rules consultation procedures*, at clause 8.9.1 of the NER, appropriate to guide the level of input and collaboration required from key stakeholders such as DNSPs and Government bodies. Instead, we ask the AEMC to include more prescriptive consultation requirements on the AER through this rule change. More detailed engagement with these stakeholders would ensure the AER understands how its framework will work alongside and interact with other key regulatory instruments and policies, such as those listed above. This will, in turn, provide better outcomes and protections for electricity customers by reducing the risk of gaps in how resilience activities will be implemented.

Recommendation Five: The AEMC should make a more preferrable draft rule to require the AER to consult with key stakeholders such as DNSPs, Governments and other regulatory bodies, in the preparation of its Resilience Expenditure Guidelines for network resilience.

Ausgrid strongly agrees with the need to provide DNSPs more certainty about what methods and modelling is acceptable and appropriate to justify resilience expenditure proposals. During the

assessment of our 2024-29 regulatory proposal, there were considerable differences in how Ausgrid and the AER modelled the wind risk to our network. We note these differences led to a range of our expenditure proposals to address wind risk not being accepted by the AER in its final determination.

However, Ausgrid does not agree with the proposed requirement for the AER, through the Resilience Expenditure Guidelines, to identify "suitable methods, models and data that DNSPs can use".

Understanding of climate change is changing rapidly which means the AER's Resilience Expenditure Guidelines are likely to become outdated quickly if specific methods, models and data is identified and required. We consider there should instead be an obligation on the AER to rely on the latest scientific modelling and methods for its assessment of resilience expenditure. The NER should also require the AER, through the Resilience Expenditure Guidelines, to set out the process for how it will assure itself that the modelling and methods presented by DNSPs is appropriate.

This approach has a number of benefits. It gives the AER more flexibility as to what modelling and methods it can consider in its assessment of resilience expenditure proposals and reduces how often its Resilience Expenditure Guidelines would need to be re-made. Greater clarity as to how resilience expenditure proposals will be assessed will provide more certainty and transparency for DNSPs, stakeholders and customers before DNSPs begin their proposals.

Recommendation Six: The AEMC should make a more preferrable draft rule to place an obligation on the AER to consider the latest scientific modelling and methods in its assessment of resilience expenditure proposals.

Finally, we recognise establishing a formal process to consistently assess resilience expenditure will be time and resource intensive for the AER. We also appreciate that the assessment of climate modelling is complex and ever evolving. We ask the AEMC to consider whether the AER could be better supported in its assessment of resilience expenditure proposals through an independent expert panel. This panel could be tasked with advising on both climate change and network impact modelling which are both crucial to justifying proposed resilience expenditure.

We note the existing independent panel established to assess and publicly report on the AER's Rate of Return Guidelines is an example of how this independent panel for resilience could be approached.[11] The proposed rule could require the AER to set out, in its Resilience Expenditure Guidelines, the role of the independent expert panel, how members should be selected, how the panel's advice should be provided and how it will be relied on by the AER in its resilience expenditure assessments.

In Ausgrid's view, this panel could support AER staff with the resource intensive burden of reviewing, understanding and making an informed assessment on complex climate modelling. It would also incentivise DNSPs to invest further in studies and research that expand the energy sector's understanding of the expected impact of these hazards. For example, to progress industry understanding, Ausgrid will support wind research over the 2024-29 regulatory period to understand and model wind hazards and impacts at an individual asset location, accounting for local geography, rather than across broad grid models.

Recommendation Seven: The AEMC should make a more preferrable draft rule which establishes an independent expert panel to support the AER in the assessment of climate change and network impact modelling. The AER's Resilience Expenditure Guidelines should be required to set out details about the Panel and how its advice will be relied on for the assessment of resilience expenditure proposals.

[11] AER, Pathway to the 2022 Rate of Return Instrument (Consultation Paper on 2022 Instrument Process) June 2021