Justice and Equity Centre

Including distribution network resilience in the National Electricity Rules consultation paper

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About the Justice and Equity Centre

The Justice and Equity Centre is a leading, independent law and policy centre. Established in 1982 as the Public Interest Advocacy Centre (PIAC), we work with people and communities who are marginalised and facing disadvantage.

The Centre tackles injustice and inequality through:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change to deliver social justice.

Energy and Water Justice

Our Energy and Water Justice work improves regulation and policy so all people can access the sustainable, dependable and affordable energy and water they need. We ensure consumer protections improve equity and limit disadvantage and support communities to play a meaningful role in decision-making. We help to accelerate a transition away from fossil fuels that also improves outcomes for people. We work collaboratively with community and consumer groups across the country, and our work receives input from a community-based reference group whose members include:

- Affiliated Residential Park Residents Association NSW;
- Anglicare;
- Combined Pensioners and Superannuants Association of NSW;
- Energy and Water Ombudsman NSW;
- Ethnic Communities Council NSW;
- Financial Counsellors Association of NSW;
- NSW Council of Social Service;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW;
- Salvation Army;
- Tenants Union NSW; and
- The Sydney Alliance.

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The Justice and Equity Centre office is located on the land of the Gadigal of the Eora Nation.

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1. Introduction

The Justice and Equity Centre (JEC) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) Including distribution network resilience in the National Electricity Rules consultation paper (the Paper).

The JEC supports the intent of the rule, which we understand as providing network businesses greater clarity and more consistent direction concerning spending on resilience. We are not convinced this intent is best served by creating new categories of network investment. The issue most at stake in this process is whether consumers interests are best served by a such an approach, or a more principles-based framework to guide resilience spending and regulation.

The JEC supports a principles-based approach to resilience guidance for networks.

The National Electricity Market (NEM) is geographically diverse meaning different network businesses face widely differing resilience risks at different locations, with differing capacity to address them. Producing a formal framework that is appropriate for these diverse needs is likely to produce a 'one size fits none' result, and one that results in significant risk of excess expenditure in many cases. This approach also creates a number of significant risks to consumers and would require a review of other aspects of the regulatory framework to ensure against 'duplication' of resilience-related expenditure.

The costs of a formal framework would be certain for consumers – given they will carry all network costs – but the benefits are highly uncertain, and in many cases cannot be reliably calculated. The ambiguities include (but are not limited to):

- how resilience spending relates to reliability spending (and delineating between them in any meaningful way),
- how it relates to business-as-usual spending (given that there is an existing level of networks services resilience),
- how frequent and long outages are likely to be (and how reliable any predictions of this can be),
- the amount of disutility consumers experience (or not) due to a long-duration outage (given many longer outages have widely varying impacts on different communities and may involve less utility over time), and
- the impact of a given investment on the likelihood of a resilience event occurring (given the unpredictability of 'resilience events' and uncertainty as to the meaningful scope to avoid or mitigate them if/when they occur).

Given this high level of uncertainty, we consider it more appropriate to refine the existing principles-based frameworks and allow network businesses to develop resilience expenditure proposals in line with this guidance with their customers and stakeholders. This would reduce the likelihood of network businesses producing – and the AER approving – resilience expenditure proposals in excess of what consumers are willing to pay.

The guiding consideration for a resilience framework should not be what provides clarity for network businesses and the AER but what promotes the long-term interests of consumers and reflects their preferences on how to manage the risk of long-duration outages related to severe

weather events. Crucially, certainty for network businesses should not come at the expense of increased costs to consumers, which would effectively represent a transfer of risk from networks to consumers.

Risks of a conceptually under-developed resilience framework

The framework proposed in the Paper does not adequately differentiate resilience from reliability. The Paper frames the distinction as one of reliability relating to outages less than 12 hours and resilience relating to outages greater than 12 hours. This distinction is problematic and likely to result in excess costs for consumers.

Distinguishing resilience from reliability on the basis of the length of outage is impractical for investment decision-making or guidance. It is only possible to determine whether an outage constitutes a reliability or resilience 'event' after the fact. In advance, many forms of expenditure aimed at 'avoiding' a resilience event are likely to simply involve increasing reliability expenditure. This adds a level of speculation to significant aspects of network businesses potential responses to resilience.

The resilience events network businesses and the AER will be required to speculate on are 'tail' events by their nature. They are difficult to assess probabilistically in terms of frequency, duration, scope, and severity. Basing the regulatory framework on an arbitrary distinction creates a situation where the regulator is likely to find it difficult to confidently deem any level of additional expenditure imprudent or inefficient, except in relation to relatively arbitrary references (such as climate risk modelling).

This invites the risk of over-investment in resilience by network businesses, who have a strong incentive to err on the side of caution given they face no cost to mitigate their risk. This approach may also add to the incentive for capital investments in order to benefit from a larger regulated asset base.

The framework also inadequately distinguishes spending on resilience in response to new circumstances (i.e. increased risk from climate change) from 'baseline' spending on resilience (i.e. existing investment and decisions to mitigate against the risk of long-tail events and respond when they occur).

Resilience is not a new consideration for network businesses, and the existing level of network service resilience is not 'zero'. Networks have long prepared for and responded to severe weather events. When engaging with consumers, networks and regulators should be mindful not to suggest they are starting from a baseline level of zero resilience.

Further consideration should be given to how network businesses engage with consumers and stakeholders on resilience to ensure existing levels are established and respondents 'revealed' willingness to pay are not artificially inflated by the assumption that resilience involves the introduction of entirely new considerations or practices. It will also be important to recognize 'qualitative' aspects of resilience responses. Such responses need not involve extra expenditure and could realise improvements to resilience through, for example, changes in practice to improve the capacity to mitigate or respond to severe weather events.

While clearer guidance on resilience expenditure is welcome, we do not support the proposed framework due to the high likelihood it will lead to inefficient over-investment. We recommend instead a principles-based framework that builds on existing guidance. This should clearly distinguish resilience from other related forms of expenditure, including both quantitative and qualitative aspects of potential responses to resilience events. Such an approach would better serve the long-term interests of consumers and ensure they are not overburdened with costs which effectively set resilience above the level at which they are prepared to pay.

One way to draw this distinction could be to treat issues that relate to the frequency and duration of outages under the rubric of reliability and issues that relate to the experience of consumers during and immediately after an outage under the rubric of resilience. Put differently, insofar as a value of resilience is justified, it should be a readiness and recovery value (rather than a risk reduction value, as is currently the case).

The Value of Network Resilience

We do not support the adoption of the value of network resilience (VNR) as an alternative solution to providing guidance to DNSPs on resilience expenditure. As we have noted elsewhere[1], the process to develop the VNR was highly curtailed and inadequately rigorous to claim with any authority that the value produced conforms to consumers' preferences.

Further, based on the principle of diminishing marginal utility (or in this case, disutility) and evidence from the 'lived experience' workshops organised by the AER as part of the process, the decision to set the VNR as a multiple of the value of customer reliability almost certainly overestimates consumers' willingness to pay to avoid the marginal hour of outage during long outages.

We support the work of the AER in developing a more robust VNR. We strongly recommend the terms of reference for that process include consideration of whether the VNR taking the form of a multiple of the VCR is appropriate.

2. Consumer risk preferences for long-duration outages should underpin resilience decisions

The lack of clarity around distribution network service resilience in the Rules may impact consumer outcomes relating to long-duration outages. The absence of a formal framework (including one which is principles-based) may create uncertainty for network business and the AER around how to efficiently spend on network service resilience for long-duration outages.

We broadly agree with the problem statement apart from the assertion that current regulatory arrangements place 'insufficient' focus on consumer outcomes for long-duration outages. Whether existing arrangements and the manner in which they are operationalised by network

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[1] See JEC submission to AER Value of network resilience 2024 issues paper and JEC submission to AER Value of network resilience 2024 draft determination.

businesses is 'insufficient' is contingent on a more robust and nuanced assessment of consumer risk preferences.

Risk preferences will vary across (and within) networks based on their respective climate risks, their existing capacity to manage/mitigate these risks, and the prominence consumers in different network areas attach to these risks relative to other priorities. The latter should not be conflated with support for increased expenditure. That is, consumers may consider resilience a key priority while simultaneously opposing increased contributions to distribution networks to support such efforts.

This sentiment was evident in recent AER consumer engagement on the development of a VNR where no participants suggested increased consumer contributions were required to support network resilience[2].

ECA research on resilience similarly suggests the prevailing 'focus on electricity network equipment for resilience results in a mismatch between the approach electricity network businesses and governments want to take to electricity resilience and what consumers say they need for electricity resilience'[3].

Consumer risk preferences for long-duration outages need to be better understood and integrated into resilience decision-making. This assessment should consider consumer risk preferences at a system, network, and potentially community level (where certain communities experience materially different risk of resilience-related events, such as floods or bushfires). Until such assessments are conducted, we are reticent to support changes to the regulatory framework and question the assertion that current arrangements are 'insufficient'.

A comprehensive assessment of consumer risk preferences for long-duration outages is necessary to reliably establish whether existing arrangements pay 'insufficient' attention to network service resilience generally, or whether the current approach creates areas of particular failure to meet consumers preferred level of risk mitigation.

3. A framework for distribution network resilience should centre on response and recovery

The aspects of resilience that consumers value most relate to responsiveness and readiness[4]. That is, consumers want network businesses to minimise the impact (both apparent and actual) of a loss of electricity services in the immediate lead-up to an event and to provide support to reduce the impact of a loss of electricity, make network equipment safe in the immediate aftermath of an event, and restore services within a reasonable timeframe.

The proposed drafting of the resilience expenditure factors to be included in National Electricity Rules (NER) clause 6.5.7(e) reads:

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2 See The Insight Centre, Consumer engagement on the Value of Network Resilience, p. 7.
3 See ECA and Erne Energy, Approaches to electricity network resilience & consumer electricity resilience, p. 14.
4 Ibid. p. 6

> The extent to which the capital/operating expenditure relates to the distribution network service provider's ability to prepare efficiently to resist, manage during, or recover from catastrophic events and severe weather events, which may lead to prolonged power outages, considering:
>
> - The benefits and costs of providing the expenditure as part of forecast capital expenditure or as a cost pass-through, and
>
> - the likelihood and impact of the potential catastrophic events and severe weather events.

Should the Commission elect to insert resilience expenditure factors into the NER we recommend adopting an outcome-oriented framing by incorporating language around 'maintaining customer supply' into the above clause.

The overriding focus should be on maintaining customer supply (or network services) rather than safeguarding the integrity of the network itself. We note that 'maintaining customer supply' need not flow from the network and could involve non-network alternatives such as back-up generation. For these reasons we recommend referring to the 'resilience of network services' rather than 'network resilience'.

Resilience expenditure factors should reflect consumer priorities. As such, we recommend removing the reference to 'resisting' severe weather events as we consider this consideration is adequately captured (or insufficiently differentiated) from reliability expenditure.

Resilience expenditure should be limited to qualitative changes or additional expenditure aimed at 'managing during or recovering from' a severe weather event. For example, this may extend to:

- Moving network infrastructure and depots (or changing practices within them) to improve 'survivability' and ability to respond during expected severe events, such as floods and fires.
- More detailed planning for co-ordinated response during and after critical events in areas of higher predicted risk.
- Increased provision for critical network supplies or operational equipment required to rapidly restore services in areas of higher predicted risk.
- Improved communication and information provision channels to ensure communities are informed during and after events.

Crucially, appropriate consideration of resilience in line with consumer risk preferences should ensure the network is well-placed to appropriately inform consumers, support (and protect) them during extended outages, and restore services within a reasonable timeframe.

We also recommend that resilience expenditure factors initially be limited to severe weather events. We do not support extending the resilience framework to all catastrophic events such as cybersecurity breaches or acts of terrorism.

We do not consider it appropriate to extend the framework to non-climate contingencies given network businesses are already subject to legislated obligations under various Commonwealth acts[5] to manage these risks and maintain adequate compliance.

4. The framework should ensure consumers do not pay multiple times for resilience

We are concerned a more formal framework for distribution network resilience may encourage inefficient expenditure given resilience investments are already supported (and well established) under the existing framework. The absence of a meaningful distinction between resilience and reliability exacerbates our concern and could result in substantial excess cost to consumers.

Existing guidance on the distinction between reliability and resilience is insufficient. The current treatment of resilience as a 'subset of reliability' makes it difficult to disentangle one type of investment from another. The prevailing focus on 'risk reduction' creates the likelihood that consumers will pay multiple times for resilience. At present, consumers fund resilience in the following ways[6]:

- Consumers fund routine electricity network business operation with aspects of routine reliability investments, such as routine maintenance, restoration planning, outage communication and asset replacement, that support resilience;
- Consumers fund electricity network business investment in a (location) specific resilience solutions, including specific preparations for extreme events (ex-ante);
- Consumers fund repairs following an event that damages electricity network equipment (ex-post);
- Consumers fund compensation for long outages, such as Guaranteed Service Level payments;
- Consumers invest in their own electricity resilience (regulator's rational alternative)

If resilience expenditure factors are formalised in NER, the framework would have to review these (and other) areas of the regulatory frameworks to remove scope for duplication and ensure consumers pay no more than is necessary. Without these amendments a formalised resilience framework may lead to material (and inefficient) over-expenditure and higher electricity bills for consumers.

As part of this effort, we also recommend the AER issue updated guidance to assist network businesses assess their existing baseline level of resilience, ideally on a locational basis across their network. Understanding a network business' baseline level of resilience is essential to enabling consumers and stakeholders express informed preferences on proposed expenditure in line with their risk preferences.

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5 These include the Security of Critical Infrastructure Act 2018 (SOCI), the Security Legislation Amendment (Critical Infrastructure) Act 2021 (SLACI); and the Security Legislation Amendment (Critical Infrastructure Protection Act) 2022 (SLACIP).

6 See ECA and Erne Energy, Approaches to electricity network resilience & consumer electricity resilience.

In our experience of consumer engagement on resilience[7], we have observed a tendency to frame resilience as an entirely new area of expenditure for which there is little precedent. This may create a misperception amongst customers that networks are ill-prepared for climate risks and lead to support for expenditure that would not otherwise be justified. This has also involved consumers forming the perception that 'resilience expenditure' can reduce risks of extended outages to zero, again potentially resulting in approval of a level of expenditure in excess of what is required to meet their actual risk preferences.

5. Further engagement

We would welcome the opportunity to discuss these matters further with the AEMC and other stakeholders. If you have any queries about this submission please contact Jan Kucic-Riker, Policy Officer, Energy and Water Justice at jkucicriker@jec.org.au.

[7] See JEC submission to AER Draft decision 2024-29 revenue determinations: Ausgrid, Endeavour, and Essential Energy.