7 November 2024

Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2000

Submitted via: https://www.aemc.gov.au/contact-us/lodge-submission (ERC0400)

Dear Ms Collyer,

Including distribution network resilience in the NER: Consultation Paper

Erne Energy welcomes the opportunity to provide a submission to the AEMC's consultation paper on the rule change for Including distribution network resilience in the NER[1], proposed by the Honourable Lily D'Ambrosio MP, Victorian Minister for Energy and Resources and arising out of the 2022 Victorian Government Electricity Distribution Network Resilience Review into the storms of 2021[2].

We do not support the proposed rule change that would create new expenditure factors for "resilience". We would consider supporting an alternative draft rule that AER develops a binding guideline for Distribution Network Service Providers (DNSPs) on how it will assess proposed resilience capital and operational expenditure but within the existing expenditure factors.

"Resilience" as an issue has been recently explored by DNSPs to underpin capital investment approaches. Prior to recent revenue resets, DNSPs considered the impacts of severe weather on their assets under the current framework. New and replacement assets have been assessed for flood and bushfire risk and designed accordingly[3,4].

Routine asset management approaches also allow for severe weather to be addressed. There is no evidence that the recent increase in repair costs for electricity network equipment[5] is the result of increases in the prevalence of severe weather nor that the observed increase in severe weather is related to climate change[6]. Indeed, the long-term trend in the low-pressure systems that bring the weather that typically damages electricity networks shows a decline as a result of climate change[7].

There is evidence that increasing minutes lost to Major Event Days are strongly related the age of poles and wires, suggesting an issue with routine asset management practices for some DNSPs[8].

With the exception of floods and bushfires, the weather that typically causes damage to distribution network equipment cannot be adequately predicted to a specific location by climate model predictions[9]. Neary 75% of the weather systems that damage distribution network equipment are small-scale and the impact locations can only be determined on the timescale of the 5-10 days provided by weather forecasting[10].

[1] https://www.aemc.gov.au/sites/default/files/2024-08/rule_change_request.pdf
[2] https://www.energy.vic.gov.au/__data/assets/pdf_file/0030/594930/network-resilience-review-final-recommendations-report.pdf
[3] https://www.energyq.com.au/__data/assets/pdf_file/0017/6362/Natural-Hazards-Strategy-2024-25.pdf
[4] https://www.intertekinform.com/en-au/standards/ena-doc-036-2015-1126977_saig_ena_aus_ena_aus_2613924/?srsltid=AfmBOopQqY9JFpiWykf-J3IwsWUIs03QzdnAZ8hlNeEoD5WpV1Dnzq-n
[5] https://www.aer.gov.au/system/files/2022%20Electricity%20network%20performance%20report%20-%20July%202022.pdf
[6] https://www.csiro.au/-/media/Environment/SOTC-2024/24-00239_REPORT_StateoftheClimate2024_241022.pdf
[7] https://www.publish.csiro.au/es/pdf/ES24002
[8] https://energyconsumersaustralia.com.au/wp-content/uploads/report-consumer-electricity-resilience-jill-cainey.pdf
[9] https://www.climatechangeinaustralia.gov.au/en/projects/esci/learning-support/esci-key-concepts/#Uncertainty
[10] https://energyconsumersaustralia.com.au/wp-content/uploads/report-consumer-electricity-resilience-jill-cainey.pdf

The likelihood of floods and bushfires damaging electricity network equipment is related to the proximity that that equipment to water courses, the coast and forest. However, proximity alone is not a definitive predictor of a future severe weather event since flooding will be dependent on rainfall intensity and bushfires on weather conditions, fuel load, fuel dryness and an ignition source.

While the Forest Fire Danger Index (FFDI) can be projected by climate models, it only incorporates fire weather and fuel dryness, and not fuel load and ignition source[11]. This means that it is an imperfect predictor of future bushfire locations, particularly as fuel load is managed.

This means that there is a great deal of uncertainty in the future locations that will be impacted by severe weather, particularly on DNSP investment time frames of many decades. Given the established capital investment bias already demonstrated by the DNSPs for "resilience"[12], the proposed rule change will result in investment in assets that will increase the Regulated Asset Base, increasing electricity bills for consumers over the long-term life of "resilience" assets.

This increase in costs for consumers is exacerbated by the development of the Value of Network Resilience (VNR) that will further promote investment by DNSPs in "resilience" assets.

Given the uncertainties in climate projections for predicting the impact locations of thunderstorms, tornadoes, East Coast Lows and the likely landfall for tropical cyclones, DNSP investment in location-specific "resilience" solutions are highly likely to be in the wrong place, which will lead to consumers not only paying for a "resilience" solution, but the repairs to damaged "non-resilient" network equipment.

Consumers have identified that they want DNSPs to be responsive after a severe weather event[13], with quality, accurate communications. This suggests that agile and mobile resources are likely to best address consumer needs around prolonged outages, while ensuring that the DNSP can respond to any impacted location[14].

Energy Queensland has been managing the impact of cyclones for decades and focuses on readiness and responsiveness[15,16] and paid volunteer response teams drawn from existing staff[17]. This approach has been taken under the current frameworks strongly indicating that it is currently possible to address severe weather-related prolonged outages, while delivering the outcomes consumers require from DNSPs, without the need for a rule change.

The current market body and government work on "resilience" focuses entirely on the resilience of electricity network equipment. Any approach for resilience needs to be consumer-centric, focusing on consumers having electricity to meet their essential needs everyday and after a severe weather event.

Any rule change or guideline development needs to incorporate a definition of "resilience" that meets consumer needs, rather than focus on keeping the network up. The Energy Consumers Australia project on consumer electricity resilience developed the following definition[18]:

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[11] https://www.climatechangeinaustralia.gov.au/media/ccia/2.2/cms_page_media/732/ESCI%20Case%20Study%205_Bushfire%20risk%20to%20distribution%20120721.pdf

[12] https://www.aemc.gov.au/sites/default/files/2024-10/consultation_paper.pdf

[13] https://engage.vic.gov.au/download/document/35884

[14] https://www.instagram.com/citipowerpowercor/p/C3tXq72yziY/

[15] https://www.ergon.com.au/network/news/2024/ergon-urges-communities-to-be-prepared-for-power-outages-as-cyclone-brews

[16] https://www.ergon.com.au/network/outages/storms-and-disasters/how-we-prepare-of-severe-weather-season

[17] https://www.dropbox.com/scl/fi/3c76dhfbz11dbnxq6gts1/ENAConsumerEngagementSEQStorms.mp4

[18] https://energyconsumersaustralia.com.au/wp-content/uploads/report-consumer-electricity-resilience-jill-cainey.pdf

Consumer electricity resilience ensures that all consumers are ready, can quickly respond and recover from a loss of network electricity, while continuing to meet their essential needs with a supply of electricity.

Note: a resilient supply of electricity is not necessarily continuous with the network or via the connection point.

We suggest that this definition should form the basis of any definition in the NER or Guidelines, ensuring that consumers have beneficial outcomes for "resilience" investment and allowing an assessment of whether a "resilience" investment by a DNSP has delivered the promised benefits.

Consumers today can have a resilient supply of electricity via a combination of rooftop solar PV, a battery, an electric vehicle and/or a small generator. Not all consumers can afford to invest in their own electricity resilience solutions and so financial support from government should be provided to vulnerable consumers to allow them to upgrade a non-islandable rooftop PV system to one that can generate in the absence of the electricity network. Community electricity hubs are another way to deliver consumer electricity resilience and the proponent has previously recognised this by funding community organisations (not DNSPs) to deliver hubs[19].

Consumer electricity resilience is no longer entirely dependent on the distribution network standing strong and it is no longer appropriate to assume that "resilience" is the sole responsibility of the DNSP. DNSPs do have a key role in identifying parts of their network (and hence consumers) vulnerable to severe weather and this information should be shared transparently with governments and consumers, perhaps in the Distribution Annual Planning Report (DAPR) and related maps, to help direct support.

Consumer electricity resilience is a shared responsibility, and collaboration between multiple agencies is needed to deliver consumer electricity resilience in a cost-effective approach[20]. Many of the cost-effective solutions to ensuring consumers have a resilient supply of electricity are behind-the-meter, which are not appropriate for the DNSP to deliver.

Consultation questions

Does the current framework for distribution network resilience create regulatory uncertainty for DNSPs and the AER around efficient expenditure for long duration outages? Should the framework be amended to provide clarity?

The current framework is sufficient for delivering distribution network "resilience". The framework has accommodated approaches to mitigating the impacts of severe weather for years, without a requirement for a specific "resilience" framework.

It is this new "investment category" proposed by the DNSPs who received their final determinations in April 2024, that has created uncertainty for other DNSPs, the AER and consumers. The creation of a need for "resilience" is unnecessary as mitigating the impacts of severe weather has always been accommodated in the current Rules and current approaches to reliability.

However, implicit in the AER Guidance note[21] was that "resilience" was now an investment factor to be considered by DNSPs. As a result, clarification is needed from the AER on how addressing the risks posed by severe weather fits into the current approaches to reliability and how this relates to electricity network "resilience". An alternative rules drafting that requires the AER to develop guidance that is then binding on DNSPs would be beneficial.

[19] https://www.energy.vic.gov.au/about-energy/safety/community-hubs-energy-backup-systems
[20] https://lnkd.in/gykUnCMy
[21] https://www.aer.gov.au/system/files/Network%20resilience%20-%20note%20on%20key%20issues.pdf

We note that even in the case where a DNSP has not proposed specific "resilience" investments, but has proposed investments related to severe weather, the AER has drawn out those investments and described them as resilience, applying the criteria in the guidance note[22]. It is not helpful to assume that the approaches that DNSPs take to mitigating the impacts of severe weather are "resilience" investments. DNSPs have been mitigating the impacts of severe weather on network equipment and consumers for many years, particularly in Queensland, under the existing Rules and frameworks.

DNSPs should be required to undertake regular (annual) risk assessments of the potential impacts of severe weather on their operations that are then transparently shared with governments and consumers to allow cost-effective solutions to be explored and developed. It should be noted that as operators of Systems of Critical Infrastructure, DNSPs should be part of the Critical Infrastructure Risk Management Program (CIRMP). This already requires that risk assessments are undertaken, including for natural hazards, and an annual report provided to the "relevant commonwealth regulator"[23].

Any risk assessment related to severe weather should be shared publicly via the DAPR.

How material is the lack of clarity in the rules around network resilience?
(a) Do you consider the issue with the NER raised by the proponent to be a substantive problem? If so, why?
(b) Are there any other programs or energy sector reforms that may partially or fully address the problem raised by the proponent?

There is a lack of clarity on electricity network resilience and the benefits of more "resilient" electricity networks to consumers.

There is no evidence that ex-ante investment in electricity network "resilience" reduces ex-post costs for recovery. There is evidence in the building sector that investment in risk reduction investment avoids recovery costs[24], but this cannot be applied to electricity networks. The integrity of a single building to storms is not the same as connected and contiguous electricity network equipment.

Insurance-related severe weather events have increased in southern Australia[25], but the impact of climate change in Australia suggests that the weather systems that typical cause damage to electricity network equipment show a long-term decline[26]. However, given the fact that low pressure systems have decreased in number, while becoming more intense, as a result of climate change (this is true of cyclones for northern Australia), the more recent storms of 2021-2023 may be the result of the climate variability caused by the La Nina weather driver, while the bushfires of 2019-2020 were the result a strongly positive Indian Ocean Dipole (IOD) weather driver.

It is too early to say if the increasing costs of network damage and impact on electricity consumers, both through a prolonged loss of electricity and repair costs funded through electricity bills, is a persistent feature of climate change in Australia or related more to recent climate variability. That is, the increase in recovery costs[27] may not be a permanent feature or related to climate change.

[22] https://www.aer.gov.au/system/files/2024-09/AER%20-%20Draft%20Decision%20-%20Overview%20-%20Ergon%20Energy%20-%202025-30%20Distribution%20revenue%20proposal%20-%20September%202024.pdf
[23] https://www.cisc.gov.au/resources-subsite/Documents/cisc-factsheet-risk-management-program.pdf
[24] https://www.csiro.au/en/news/all/articles/2016/april/building-disaster-resilience-systematically-australia-save-billions
[25] https://insurancecouncil.com.au/wp-content/uploads/2024/10/ICA-Historical-Normalised-Catastrophe-September-2024.xlsx
[26] https://www.publish.csiro.au/es/pdf/ES24002
[27] https://www.aer.gov.au/system/files/2022%20Electricity%20network%20performance%20report%20-%20July%202022.pdf

There are other reasons that repair costs may have increased that are not due to severe weather but prevailing economic drivers and the changing locations in which people live that places electricity network equipment in more challenging environments (e.g. forests).

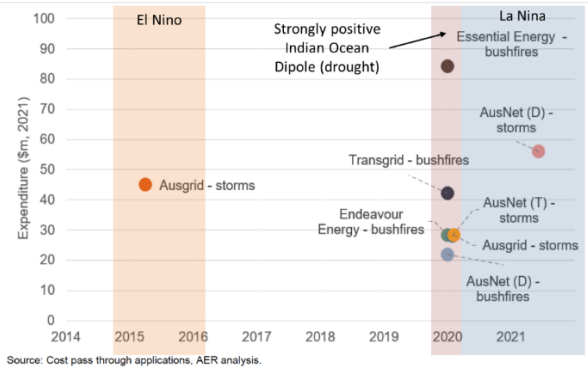

Figure 1[28,29,30]: Cost pass through application expenditure

The REFCL program in Victoria may provide an example of an ex-ante risk reduction investment, but generally projecting the cost of events that were avoided by risk reduction investment is difficult[31] and more work is needed to demonstrate that ex-ante approaches will reduce ex-post costs for consumers, including the development of frameworks designed specifically to support ex-ante resilience investment (e.g. [32]).

The cost-benefit analysis of the REFCL program can only achieve net benefits when using the maximum probability of catastrophic fires equivalent to the 2009 Black Saturday fires and including intangible costs[33]. The net benefits are highly uncertain:

> *There are large and inherent uncertainties involved in quantifying the benefits of the REFCL program, due to the unpredictability of the cost and probability of an extreme bushfire. There is compounding uncertainty in the risk reduction rate due to REFCLs at each zone substation, and in the proportion of future catastrophic bushfire costs that will be caused by electricity assets.*

The costs of the program at a 2.5% increase to consumer bills in Victoria is more than consumers said they were willing to pay (2%). Additionally, the REFCLs have resulted in deterioration of reliability where they were deployed impacting the daily consumer experience and access to reliable electricity.

As the REFCL Cost-Benefit report states, it will only become clear over many years whether the investment in REFCLs has resulted in net benefits for consumers.

The same is true with the proposed rule change: it will only become clear over many years whether ex-ante investment in network "resilience" has resulted in a reduction in ex-post recovery and a net benefit for the consumers asked to fund the "resilience" expenditure. This places the burden of risk unfairly on consumers to fund electricity network "resilience".

Do you agree with the proposed solution to include resilience expenditure factors in the NER?

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[28] https://www.aer.gov.au/system/files/2022%20Electricity%20network%20performance%20report%20-%20July%202022.pdf
[29] http://www.bom.gov.au/climate/history/enso/
[30] http://www.bom.gov.au/climate/current/annual/aus/2019/
[31] http://australianbusinessroundtable.com.au/assets/documents/Report%20-%20Building%20Resilient%20Infrastructure/Report%20-%20Building%20resilient%20infrastructure.pdf
[32] https://research.csiro.au/enabling-resilience-investment/the-enabling-resilience-investment-approach/
[33] https://content.esv.vic.gov.au/sites/default/files/2022-12/REFCL-CBA-Public-Report.pdf

(a) Is including resilience as expenditure factors in the NER an appropriate solution? Is there are a more preferable way to incorporate distribution network resilience into the NER?
(b) Do you have any comments on the proposed drafting of the resilience expenditure factors? Should they be drafted in the same way for capital and operating expenditure?
(c) Should the resilience expenditure factors cover severe weather events and other catastrophic events that may result in long-duration outages?
We do not agree that "resilience" expenditure factors are the most appropriate solution to reduce the costs of the prolonged outages, and the repair costs related to severe weather events. This approach is unnecessary and will result in higher electricity bills for consumers. This is due to the capital expenditure bias demonstrated by DNSPs generally, and a specific capital expenditure bias for "resilience" particularly[34].

"Resilience" that ensures consumer have a resilient supply of electricity to meet their essential needs can be delivered through behind-the-meter technologies or community-level approaches, which the proponent has already acknowledged by funding community hubs following the 2021 storms in Victoria[35].

Consumers identified in the Victorian Outage Review that they want responsiveness from DNSPs, including quality communications[36]. The proposed expenditure factors will not necessarily deliver the targeted in-community support consumers want from a DNSP during a prolonged outage. Additionally, Energy Queensland are delivering the responsiveness Victorian consumers seek through during Major Events without needing specific "resilience" expenditure factors[37]. The DNSPs in southern Australia need to learn from their Queensland counterparts on how they support their customers during prolonged outages within the current framework.

The DNSPs in southern Australia also need to understand how Energy Queensland has supported its response to tropical cyclones over many years within the current regulatory arrangements.

The Service Target Performance Incentive Scheme (STPIS) already has a clear threshold for a "resilience" event: the Major Event Day (MED) threshold. If anything needs to be developed to support consumer electricity resilience it may be appropriate to explore an incentive that promotes responsiveness. Even if an incentive is not developed, a metric, such as CR-XX[38], that allows the performance of a DNSP during MEDs must be developed. This metric doesn't need to have a value at risk attached (an incentive) but will support the AER, governments and electricity consumers to know whether DNSPs are meeting consumer needs during prolonged outages, in the same way the standard reliability metrics (e.g. SAIDI and SAIFI) are used to monitor reliability performance.

Question 4: Do you agree with the proposed solution to require the AER to develop resilience guidelines?
(a) Do you agree that requiring the AER to develop binding resilience guidelines will address the issue?
(b)What level of prescription should the NER include relating to the AER's guidelines? Should the NER include content requirements for the AER guidelines?
(c) Do you agree that both including resilience as capital and operating expenditure factors in the NER and an AER binding guideline are required to address the issue?

[34] https://www.aemc.gov.au/sites/default/files/2024-10/consultation_paper.pdf
[35] https://www.energy.vic.gov.au/about-energy/safety/community-hubs-energy-backup-systems
[36] https://engage.vic.gov.au/download/document/35884
[37] https://www.dropbox.com/scl/fi/3c76dhfbz11dbnxq6gts1/ENAConsumerEngagementSEQStorms.mp4
[38] https://www.publish.csiro.au/rs/pdf/RS19005

The AER should provide guidance on the fact that "resilience" is covered in the current frameworks and under the current approach to reliability. There is no need for new "resilience" expenditure factors.

The AER should explore in its guideline whether using the "worst served" reliability metric as a driver for DNSP "resilience" investment is appropriate. "Worst served" consumers are those that experience poor reliability outcomes and strongly suggests that an investment for an improvement in reliability, where a positive business case exists, should be the preferred approach, rather than treating poor reliability with a "resilience" solution.

There appears to be a relationship between asset age (poles and wires) and increasing minutes lost to MEDs for a given DNSP[39]. The AER should consider in its guideline whether replacement expenditure and asset management and planning strategies are being used appropriately by DNSPs to address the impacts of severe weather.

Ausnet Services have the oldest average age for poles and wires for all the DNSPs in Victoria and it is the only Victorian DNSP that demonstrates increasing minutes lots to MEDs (it has some of the highest minutes lost to MEDs for the NEM, perhaps with the exception Ergon Energy. However, Ergon Energy has a falling number of minutes lost to MEDs). Interestingly, most of Ausnet Service's MED minutes occur on short rural lines, rather than long rural lines, which is more typical given the exposure of long rural lines to severe weather events.

It is to be hoped that the rule change proposal, which impacts all DNSPs in the NEM, is not an attempt to the resolve management issues at specific Victorian DNSP, particularly where there are other jurisdictional options available to manage DNSP under-performance[40].

Additionally, the AER should provide clear guidance on what constitutes good engagement on "resilience" between DNSPs, consumers and communities. The recent work of Powercor has demonstrated that consumer expectations of DNSPs is highly dependent on their previous experience of prolonged outages. Consumers who have experienced prolonged outages want the DNSP to be responsive and prioritise recovery. Consumers who have never experienced a prolonged outage want to the DNSP to invest in approaches that might reduce the risk of a prolonged outage[41]. This suggests that without the AER having a clear understanding of consumers' prior experience, the DNSP can target communities that will support their capital expenditure on a "resilience" solution even though other consumers who already have experience of prolonged outages would favour a different, potentially non-capital, approach.

Consumers generally are very willing to pay a little bit more to ensure that "worst served" (a reliability measure, not a "resilience" measure) consumers potentially have an improved experience even if a business case for a "resilience" solution is not net positive. The AER should consider its approach to expenditure related to "resilience" that is not economically efficient yet strongly supported by the broader consumer base of a DNSP. The AER need to provide clarity in its guidance on how these particular business cases will be treated.

What are your views of the costs and benefits of the proposed solution?
(a) What do you consider will be the benefits and costs of the proposed solution?
(b) Do you consider the proposal appropriately allocates risk between DNSPs and consumers?

[39] https://energyconsumersaustralia.com.au/wp-content/uploads/report-consumer-electricity-resilience-jill-cainey.pdf
[40] https://www.esc.vic.gov.au/media-centre/ausnet-enters-12m-court-enforceable-undertaking-after-website-crash-leaves-storm-affected-customers
[41] https://engage.powercor.com.au/90144/widgets/421911/documents/273220

(c) Is there anything the Commission could do in designing the rule that would help to minimise the costs and maximise the benefits?
The benefits of the proposed rule change (and VNR) are an increasing RAB for DNSPs given the bias towards capital expenditure.

The costs to consumers are related to paying multiple times for "resilience" with uncertain benefits related to the DNSP-led "resilience" investment, with the potential inequity of all consumers paying for a "resilience" improvement for a small group of consumers. There are DNSP-led "resilience" solutions, such as Stand-Alone Power Systems (SAPS) that not only benefit the consumers connected to the SAPS, but the wider consumers of the DNSP[42].

It would be good to understand why SAPS are not being more widely deployed by DNSPs and why the third party led model for SAPS hasn't yet been used.

Additionally, mobile assets and agile staff (who can be paid volunteers rather than additional specialised liaison staff, as Energy Queensland have demonstrated[43]) that can be moved to communities impacted by a prolonged outage, benefit a wider group of consumers than location-specific asset investments.

What transitional arrangements would be required to implement the proposed rule?
The benefits of ex-ante investment in "resilience" have not been demonstrated to reduce ex-post recovery costs for electricity networks and no evidence has been provided as where the current framework and Rules have failed to support DNSPs in addressing the risks to their network equipment posed by severe weather. The need to for a rule change has not been made and no transitional arrangements are required.

Are there any interactions with the VNR that should be taken into account in the NER?
The VNR further allows DNSPs to invest in "resilience", which is likely to focus on capital expenditure given the demonstrated DNSP bias for investment in assets, increasing costs for consumers with no clear or certain "resilience" benefits. Consumers are clear on what they will pay for reliability through the Value of Customer Reliability (VCR). There is no evidence that consumers will pay more for "resilience", with some evidence that consumers will pay no more for "resilience" than they would pay for reliability to avoid prolonged outages[44]. And in the case of prolonged outages, the willingness to pay for improved reliability reduces as an outage progresses[45].

It still needs to be demonstrated that the reliability framework and the current Rules are genuinely inhibiting the ability of DNSPs to appropriately address the risks of severe weather in their asset management and planning strategies before progressing the longer-term VNR work or the rule change proposal.

Any AER guidance on "resilience" should also cover the approach and application of the current 2025 VNR values by DNSPs.

Are there alternative solutions to those proposed in the rule change request?
(a) Do you consider that more preferable solutions exist to address the identified issue?
(b) Should the rule change clarify the role of DNSPs in relation to providing resilience?
(c) To what extent would the VNR, alongside the AER's existing guidance note, resolve the issue raised in the rule change request?

[42] https://www.westernpower.com.au/resources-education/our-network-the-grid/grid-technology/stand-alone-power-system/
[43] https://www.dropbox.com/scl/fi/3c76dhfbz11dbnxq6gts1/ENAConsumerEngagementSEQStorms.mp4
[44] https://engage.powercor.com.au/91972/widgets/437539/documents/292420
[45] https://www.enwl.co.uk/globalassets/innovation/enwl010-voll/voll-general-docs/voll-phase-3-report.pdf

There are behind-the-meter solutions that can deliver consumer electricity resilience that are not appropriate for the DNSP to deliver and that can be delivered by third parties[46,47]. These behind-the-meter solutions and community level solutions that ensure consumers have a supply of electricity following a severe weather event are not dependent on upstream electricity network equipment.

Clarity of the role for DNSPs in delivering consumer electricity resilience is needed. Electricity networks transport electricity to consumers. Ensuring that electricity networks stay up or "are resilient" during severe weather is a very different approach to ensuring consumers have a resilient supply of electricity to meet their essential needs. It would be prohibitively costly to have DNSPs invest in ensuring their networks were robust to severe weather sufficient to ensure that consumers had a resilient supply of electricity. It has been described as "impossible"[48] to achieve that degree of network resilience.

The intensity of the storms we experience now and, in the future, suggest that solutions that are as close to the consumer as possible, such as behind-the-meter approaches, are likely to deliver the resilient electricity that consumers need without DNSP investment.

DNSPs should be required to undertake annual risk assessments that are reported in DAPR including "worst served" map, overlaid with severe weather risks (noting the weather that causes the most damage cannot be predicted on investment time scales). This information can be used to support governments, communities and consumers to develop resilience.

While the Guaranteed Service Level (GSL) payments are set by the jurisdictions, DNSPs should not be able to claim the cost of the GSL payments as part of the repair costs in a cost pass through application to the AER. For the 2021 storms, the AER did allow Ausnet Services to include the GSL payment as part of the cost-pass through application[49], with the GSL payments to impact consumer representing over 40% of the cost that was passed on to Ausnet Services customers. By requiring the DNSP to self-fund the GSL payments, the desire to reduce the burden of the GSL payments on the business may act as an indirect incentive to more rapidly resolve prolonged outages.

Assessment framework
Do you agree with the proposed assessment criteria? Are there additional criteria that the Commission should consider or criteria included here that are not relevant?

We agree with the proposed assessment criteria. However, the assessment criteria have not been met by the proponent's rule change and the AEMC should not progress the proposed rule change because the new "resilience" expenditure factors are unlikely to result in improved consumer electricity resilience outcomes, while resulting in significantly increased costs to consumers since they will pay multiple times for "resilience":

1. Consumers fund routine electricity network business operation with aspects of routine reliability investments, such as routine maintenance and asset replacement, that support resilience
2. Consumers fund electricity network business investment in a (location) specific resilience solution ("ex-ante")
3. Consumers fund repairs following an event that damages electricity network equipment ("ex-post")

[46] https://www.energy.vic.gov.au/about-energy/safety/community-hubs-energy-backup-systems
[47] https://www.sustainability.vic.gov.au/our-work/community-power-hubs-program
[48] http://australianbusinessroundtable.com.au/assets/documents/Report%20-%20Building%20Resilient%20Infrastructure/Report%20-%20Building%20resilient%20infrastructure.pdf
[49] https://www.aer.gov.au/system/files/AER%20Determination%20-%20AusNet%20Services%20-%20June%202021%20storms%20cost%20pass%20through%20-%20March%202022.pdf

4. Consumers fund compensation for long outages, such as Guaranteed Service Level payments
5. Consumers invest in their own electricity resilience (regulator's "rational alternative")

Many of the points made in this submission are drawn from work undertaken for Energy Consumers Australia and the project report and notes on consumer electricity resilience developed with the project's advisory group are available here: https://energyconsumersaustralia.com.au/network-resets-funding-program.

Many thanks for the opportunity to provide a submission to the Consultation Paper on real-time data for consumers. Please contact me if you need further information.

Yours Sincerely

Dr. Jill Cainey MBE