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Submission on Resilience Principles: Decision-making framework for critical infrastructure providers

Transpower welcomes the opportunity to comment on the Commerce Commission's draft guidance, *Resilience Principles: Decision-making framework for critical infrastructure providers*, published on 3 July 2026.

We support the Commission's objective of providing cross-sector guidance on good practice in resilience investment decision-making by critical infrastructure providers. We support the general direction of the guidance; however, we are concerned that it may not be equally applicable to all infrastructure providers regulated by the Commission and may set unrealistic standards. We also encourage the Commission to provide further clarity on how it intends to use the guidance across the sectors it regulates.

Our key points in response to the consultation are below:

- The guidance should be clearer on proportionality. While the Commission states that analysis should be proportionate to scale, the "what we expect to see" language imposes a high analytical burden on many resilience-related projects and may make sensible investments harder to progress. The level of evidence should be commensurate with the investment, the risk, the information available, and whether further analysis would materially improve the decision. The guidance should explicitly recognise that resilience investment is best integrated within asset management frameworks, including asset renewals, replacements, upgrades, cyber security, and operational capability investments.
- Engagement expectations should reflect infrastructure providers' roles. For national transmission infrastructure, engagement will often be most effective through our relationships with customers, consumer representatives, iwi, hapū, and Māori, where appropriate, and through regulatory funding processes. Direct engagement with end-use consumers on every asset or programme is not realistic for providers such as Transpower.

- The guidance should distinguish between useful understanding of material interdependencies and an expectation that every investment case must map interdependencies in detail.
- The Commission identifies cyber resilience in its guidance. However, there are no examples of how it would assess expenditure in this area. Digital, ICT, cyber, telecommunications, cloud, and operational technology dependencies should be more explicitly recognised as important contributors to service resilience alongside physical network assets.
- There should be more explicit recognition of readiness options. While these are mentioned in the guidance, there is no explanation of how the Commission will assess them. The guidance emphasises hardening in places at the expense of readiness options.
- While optioneering is important, we query the need to extend the investment phase of projects to include multi-criteria analysis of the environmental and social impacts of each option. The environmental consenting phase of major projects involves multi-criteria analysis that would address these impacts.
- We agree with the Commission that fit-for-purpose data should be used. However, in many cases, data may be unavailable or sources may conflict. The guidance should recognise that data will be limited in some situations.
- We encourage the Commission to prioritise further work on trusted data sharing, data standards, and cost-effective approaches to acquiring resilience data across regulated infrastructure sectors. Current arrangements require each agency to purchase hazard data without being able to share it with other agencies.

We have responded to the questions in the attachment to this letter.

We look forward to continuing to engage with the Commission as it continues to develop the guidance.

Yours sincerely,

Joel Cook

Head of Strategy and Regulation

Attachment: Transpower's responses to the questions

Making our guidance clear and effective

Question	Response
1. Is the draft guidance clear about its purpose and practical status, including the level of analysis and rigour the Commission expects for more material resilience expenditure proposals?	Not fully. The guidance should clarify how the Commission intends to use the guidance in its regulatory tests or for information disclosure purposes. We support stronger evidence for material proposals, but the expected analysis should be proportionate to scale, context and materiality. Smaller or lower-risk proposals should be supportable through existing planning, governance and asset management material. We are concerned that, in many cases, following the guidance may be impractical because of limited data availability and quality, and the associated costs.
2. Is it clear how the draft guidance should be applied proportionately across sectors with different levels of maturity?	No. Expectations should reflect each provider's role, maturity, risk profile and investment scale. The guidance should focus on material risks and outcomes, rather than requiring common tools, models or engagement approaches across sectors.
3. Are there implementation barriers, overlaps, or accountability issues in the wider resilience and regulatory landscape that may affect how this guidance is applied in practice?	Yes. Barriers include the cost and capability needed for extensive analysis and engagement; limited or conflicting hazard, understanding vulnerability and compound-impact data; inefficient data acquisition and restrictions on trusted sharing; and uncertainty about overlaps with existing asset management, risk management and regulatory processes. Multi-hazard modelling and direct community engagement may be impractical for some investments and providers.
4. What areas should the Commission prioritise in further work (for example, business case guidance, resilience measures, maturity assessment, interdependency information, or reporting)?	We encourage the Commission to hold workshops with the different sectors to work through the guidance. Priority areas are clearer proportionality and regulatory status; integration with existing investment planning; practical guidance for material business cases; measures covering readiness, recovery, digital and operational capability as well as hardening; trusted data sharing and cost-effective data acquisition; and proportionate treatment of multi-hazard analysis and material interdependencies.

Completeness and usefulness

Question	Response
5. Which aspects of the draft guidance are most helpful for informing your investment decision making, and why?	The most helpful aspects are the focus on evidence-based decision making, the hazard, exposure, vulnerability and impact (HEVI) process and investment prioritisation. These support disciplined identification of resilience needs, testing of options and demonstration that expenditure is prudent and efficient. We also support integrating resilience into ordinary asset management, risk management, governance and investment planning. The ResOrgs report is a useful reference for piloting tools. We support structured optioneering and cost-benefit analysis. However, we are concerned that the approach in the draft guidance is not appropriate in all cases. Requirements to carry out Monte Carlo analysis, other detailed optioneering (such as multi-criteria analysis), and cost-benefit analysis addressing social and environmental matters may overlap with steps usually undertaken through Resource Management Act processes. Significant investigation, time and cost would be required to bring this work forward to the investment stage.
6. Which parts of the guidance are unclear, unnecessary, or could be improved? Please explain.	The guidance should better recognise that resilience is delivered through readiness, recovery, renewals, upgrades, operating arrangements, monitoring, temporary supply, ICT, cyber and restoration capability—the current guidance is heavily asset hardening focused. Asset criticality should consistently mean the importance or consequence of failure, with exposure, vulnerability and dependencies treated as separate risk factors. Engagement, multi-hazard modelling and interdependency expectations should also be proportionate.
7. Are any principles missing? Are there areas of overlap where the principles could be simplified or streamlined?	The principles should more explicitly cover readiness and recovery; digital, ICT, cyber and operational technology resilience; and integration with existing asset and investment plans. Principle 3 could focus on material dependencies and restoration assumptions rather than detailed mapping for every proposal. The principles should then be reviewed for overlap once their status and relationship with established asset and risk management frameworks are clearer.
8. Are there any missing frameworks or evaluation tools that should be included or referenced?	Bow-tie analysis may be useful. Scenario and sensitivity testing, Monte Carlo analysis and Conditional Value at Risk (CVaR) can help assess the distribution of outcomes and tail risks rather than relying only on averages. These techniques can be costly and data-intensive, so they

Question	Response
	should be presented as proportionate options for material decisions rather than universal requirements. A framework for valuing network resilience should also be considered, similar to that developed by the Australian Energy Regulator.

Your current approach and experience

Question	Response
9. To what extent do you already apply these principles in your resilience-related decision-making processes? If not, what currently guides your resilience-related investment decisions?	Our approach is integrated with established asset management, risk management, governance and investment planning. We apply the 4Rs rather than focusing only on hardening and use existing asset planning and options-assessment frameworks. This summary does not necessarily mean we do "what good looks like" as described in the draft guidance. **Relatively mature:** embedded in our overall asset management and risk management approaches for several years and applied to resilience decision making where possible, with ongoing improvements. This includes principle 6 (clearly defined asset criticality), principle 7 (structured optioneering), principle 8 (comprehensive evaluation of costs and benefits), principle 9 (option effectiveness), part of principle 4 (consideration of distributional direct and indirect impacts to society) and principle 10 (investment prioritisation). **Some application / less mature / developing**: principle 1 (multi-hazard risk awareness), principle 2 (understanding risk at different scales), principle 3 (accounting for interdependencies), and principle 11 (uncertainty). **Least mature / not actively developing**: part of principle 4 (consideration of distributional impacts from a social inequity perspective) and principle 5 (risk tolerance and risk-bearing capacity through community perspectives), which may be difficult or of limited value for us at the suggested depth and scale.
10. Do you have practical examples of applying these principles – in a specific sector, or cross-sector – that could be shared to support other users of the guidance?	Yes. Examples include our asset planning decision framework, options assessment approach, resilience strategy and portfolio planning, including investments that combine physical, operational, digital and recovery measures. Our readiness framework is an example of how to work collaboratively to improve preparedness. Specific resilience investments were included in, and approved by, the

Question	Response
	Commission as part of our fourth regulatory control period.

Community, Māori and place-based considerations

Question	Response
11. How should the framework recognise and reflect iwi, hapū, and Māori perspectives, including capability, resources, and relationships that support resilience, particularly in smaller or more isolated communities?	Resilience is a key issue for an organisation such as Transpower, given our role. We recognise the importance of our contribution to community resilience and the need to work in partnership with communities and iwi, hapū, and Māori through meaningful relationships that provide resources and information, particularly for isolated communities. However, as a national service provider whose services are delivered to end consumers through electricity distribution networks, it is impractical and inefficient for us to engage with end consumers across all our investments. Instead, we use a targeted approach through our regulatory control period proposals, engagement with individual customers, and our major capex proposal process (for example, the Redclyffe 220 kV resilience work). We also engage through sector forums and regular national and local lifelines meetings.
12. Which cross-sector vulnerabilities and interdependencies should the framework place the greatest emphasis on, and expect infrastructure providers and the Commission to pay closest attention to?	The framework should focus on material physical, cyber, geographic and logical dependencies affecting security of supply, operation and restoration, drawing on National Lifelines work, including national vulnerability and interdependency assessments. It should explicitly recognise telecommunications, fuel, transport, cloud services, information systems and operational technology, while avoiding simplistic restoration sequences or detailed mapping for every investment. Resilience can be delivered through people, processes, technology, alternative operating arrangements and recovery capability, not only physical hardening.