



32 Harington Street,
PO Box 903, Tauranga,
3140, New Zealand
T: +64 7 578 0896 // F: +64 7 578 2968
E: info@beca.com // www.beca.com

Infrastructure Regulation Team
Commerce Commission

14 August 2026

By email: infrastructure.regulation@comcom.govt.nz

Tēnā koutou

Submission Draft Resilience Guidance Feedback

Thank you for the opportunity to comment on the draft Resilience Principles: Decision-making framework for critical infrastructure providers. We support the Commission’s intent to encourage more deliberate, transparent and proportionate resilience investment decisions across regulated infrastructure. This is a submission on the Resilience principles for investment decision-making guidance made on behalf of multi-disciplinary practitioners from across Beca's engineering and advisory business lines.

As practitioners supporting infrastructure providers across asset management, resilience, adaptation, business case and investment planning, we consider the guidance is broadly well aligned with good practice. Our comments below focus on where additional clarity would make the guidance more practical, proportionate and easier to apply consistently.

1. Is the guidance clear on its purpose and practical status, including the level of analysis and rigour the Commission expects for more material resilience expenditure proposals?

Partly. The guidance would be strengthened by clearer front-end explanation of its practical status: how it will be used by the Commission, how it relates to existing asset management plans, investment delivery plans, business cases and price-quality processes, and what evidence will be expected. The term “significant” or “material” resilience investment should not be treated only as a large-dollar threshold. Smaller renewals or operational decisions can be highly material where they affect critical services, single points of failure, long-lived assets or system interdependencies. We recommend defining materiality by risk, criticality, service performance consequence, asset life and expenditure scale. A practical “wiring diagram” showing inputs, decisions, outputs and links to asset management plans, investment plans and delivery plans would help providers understand where this guidance fits.

2. Is it clear how the draft guidance should be applied proportionately across sectors with different levels of maturity?

Not yet. We support proportionate application, but the guidance should distinguish between minimum expectations and advanced practice. Table 3.1 could include a minimum expectation column, with a clear baseline such as: providers understand service criticality, key risks, exposed assets, interdependencies, plausible failure pathways, customer and community risk tolerance, and the evidence supporting decisions. The term maturity also needs clarification. If the Commission means asset management maturity, it should align with recognised frameworks applied in New Zealand such as the Āpōpō asset management maturity guidance and tool and; if it means decision-making maturity, that should be defined separately, with examples of emerging, intermediate and advanced practice.

**make
everyday
better.**

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. Infrastructure resilience decisions sit within a crowded and changing landscape spanning asset management, local water reform, economic regulation, emergency management, spatial planning, climate adaptation and natural hazard risk management. Different infrastructure owners operate under different governance arrangements, funding cycles, regulatory obligations and planning horizons. This makes system-wide resilience difficult even where providers are willing to collaborate. The guidance should explicitly acknowledge these barriers and provide direction on how providers should account for wider spatial plans, adaptation priority areas, local authority plans, lifelines planning and other providers' investment intentions. It should also address the risk of unintended "gold plating" or compliance burden: resilience investment must be robust and transparent, but also affordable, staged and targeted to the most material risks.

4. Further work priorities

We recommend the Commission prioritise: business case guidance for resilience expenditure; practical guidance on interdependency and cascading-failure assessment; clearer expectations for risk, criticality and evidence standards; guidance on customer, iwi/hapū and community engagement — including how information gathered through engagement should be incorporated into resilience assessments and investment decision making; worked examples of proportionate analysis at different investment scales; and a clearer map of how the guidance interacts with AMPs, investment plans, delivery mechanisms, price-setting and other regulatory requirements. Further work should also group tools by use case, such as spatial analysis, scenario testing, robust decision making, adaptive pathways, probabilistic models, multi-criteria analysis and simulation, rather than presenting a selective list of tools without clear guidance on when to use them.

5. Most helpful aspects for decision making and why?

The most helpful aspects are the focus on the entire ecosystem; service outcomes, system criticality and interdependencies rather than individual assets alone. This is important because resilience failures often cascade across infrastructure systems: for example, a bridge failure may also disrupt water, power or telecommunications services. We also support the emphasis on understanding community risk tolerance and the balance between reducing risk, maintaining service continuity and enabling faster recovery. This recognises that resilience outcomes are not experienced uniformly and that vulnerability, preparedness and access to alternatives vary considerably between communities. The guidance is strongest where it encourages providers to look beyond like-for-like asset replacements or upgrades and consider broader risk treatments, including demand management, alternative service arrangements, nature-based solutions and staged adaptation.

6. Which parts of the guidance are unclear?

The main unclear areas are: what triggers the guidance; the threshold for materiality; the minimum expected level of analysis; the distinction between qualitative and quantitative evidence; how resilience decisions should be integrated into AMPs, investment plans and interventions; and how the Commission will assess or rely on the guidance in practice. Some sections appear more informational than directive, particularly the discussion of frameworks and tools. These sections would be more useful if they explained what each approach is best suited for, what evidence it generates, what limitations it has, and how it supports a regulatory or investment decision.

The role of engagement is also unclear. While the guidance places significant emphasis on engagement with communities, iwi and hapū, it provides limited direction on how information gathered through engagement should influence resilience assessments, criticality assessment, prioritisation or investment decisions.

7. Are any principles missing?

The principles are generally sound. However, we recommend stronger recognition of: (a) system criticality and single points of failure across multiple providers; (b) Te Tiriti partnership, mātauranga Māori and cultural values as substantive evidence and decision inputs, not only stakeholder considerations; (c) maladaptation and lock-in, including decisions that may increase future exposure or constrain future options; (d) affordability and staged implementation; (e) links between resilience investment and wider objectives such as sustainability, emissions, social outcomes and place-based adaptation; and (f) explicit consideration of whether the appropriate response is built infrastructure, operational change, retreat, redundancy, alternative service delivery or a combination.

8. Missing evaluation frameworks or tools?

The guidance should better explain why particular tools are included and how providers should select between them. It should include or reference decision-making approaches such as adaptive pathways, robust decision making, probabilistic models, multi-criteria analysis, cost-benefit analysis, decision-making under deep uncertainty techniques, whole-of-life cost and carbon assessment, spatial risk analysis, service criticality assessment, dependency mapping, and tools commonly used in Aotearoa New Zealand such as the Āpōpō asset management maturity tool and 1000minds where relevant. It should also acknowledge emerging natural hazard risk management standards and ISO 31000-based guidance, and explain how they relate to resilience investment decisions.

9. To what extent are we applying these principles? What guides resilient decision making?

In practice, application is uneven. Some sectors already use mature asset management, risk and business case processes, while others are still developing the data, systems and capability needed to identify critical assets, understand climate and natural hazard exposure, and prioritise resilience investments. Existing practice is often guided by business case frameworks, ISO 31000 risk management, ISO 55000 aligned asset management plans, lifelines planning, local government planning, climate adaptation guidance and sector-specific regulatory requirements. The guidance should help connect these rather than create a parallel process. A minimum baseline should be that all providers understand their assets, critical services, vulnerabilities, interdependencies, customer/community risk tolerance and preferred risk treatment pathways.

10. Examples of applying principles

Relevant examples could include: integrated infrastructure resilience planning for local government and water services; robust decision-making approaches for water supply and drought management; defence estate planning where multiple infrastructure systems and service continuity requirements interact; property-level climate resilience assessment tools that combine exposure, vulnerability, consequence and mitigation options; collaboration with iwi, hapū and marae to understand local response capability, service dependencies and resilience priorities in remote or hazard-exposed communities; and cross-provider work to identify single points of failure, such as co-located utilities on transport corridors or bridge crossings. These examples would demonstrate how the principles can be applied across asset, network, community and cross-sector scales, and how analysis can be scaled from qualitative screening through to detailed modelling and business case evidence.

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?

The guidance recognises the role of iwi, hapū and Māori in understanding community resilience, vulnerability, service impacts and local response capability. However, it could provide greater clarity on how information gathered through engagement with iwi, hapū and Māori should be incorporated into asset management plans, resilience assessments, criticality assessments, community impact assessment, investment

prioritisation and decision making. This would provide greater transparency on how engagement influences resilience investment decisions and the assessment of community impacts and benefits.

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 guidance appropriately highlights interdependencies and cascading impacts across infrastructure systems. Particular attention should be given to critical connections between transport, electricity, telecommunications and water services, as well as dependencies that affect remote and isolated communities. Given the Commission's role, the focus should be on how providers identify, assess and account for material interdependencies and service consequences within resilience investment decisions. In addition to lifeline infrastructure, social infrastructure (e.g. schools, sports facilities, churches) reduce community vulnerability and enhance resilience during and following natural hazard events. These interdependencies and the importance of this social infrastructure should not be underestimated.

In closing, we support the Commission's direction and consider the guidance has the potential to materially improve resilience decision making if it is made more practical, proportionate and clearly connected to existing regulatory, asset management and investment planning processes. We would be pleased to discuss these comments further.

Ngā mihi

Cushla Loomb

Business Director - Climate Resilience

Priyani de Silva-Currie MNZM

Technical Fellow – Strategic Asset Management

Andrew Livermore

Capability & Operations Manager – Transport & Infrastructure

Jonathan Howe

Technical Director - Security & Risk

Robert Hales

Market Lead - Land Transport

Robert Brodnax

Technical Fellow - Policy and Strategic Advisory

Beca Limited

Phone Number: [REDACTED]
Email: [REDACTED]