



**TCF Response to Climate Change Commission
Call for Evidence for the Second Climate Change Risk Assessment
31 March 2025**

Introduction

1. Thank you for the opportunity to contribute to the [call for evidence](#) that will help inform work on the second national climate change risk assessment.
2. This contribution is provided by the New Zealand Telecommunications Forum (TCF) Climate Change Group. The TCF is the telecommunications sector's industry body which plays a vital role in bringing together the telecommunications industry and key stakeholders to resolve regulatory, technical and policy issues for the benefit of the sector and consumers. TCF member companies represent 95 percent of New Zealand telecommunications customers.
3. Like other critical infrastructure, telecommunications is a sector affected by natural hazards caused by climate change. Our networks often need to traverse and locate in areas subject to natural hazards, because the people who live in these places depend on the services we provide, and to be able to provide national coverage.
4. The resilience of telecommunications infrastructure to natural hazards caused by climate change has become an issue of increased focus as a result of the severe weather events New Zealand has been experiencing in recent years. For example, during Cyclone Gabrielle, fibre optic cables were damaged due to land slips and when roads and bridges were washed out, and mobile services were affected when power and fibre was cut to cell towers.
5. Telecommunications network operators are taking steps to make their infrastructure more resilient to climate change. For example by building more diversity into the core networks that connect cities and towns, investing in satellite backup for mobile services, improving network capacity and energy efficiency through 5G, exploring

alternatives to bridges for fibre river crossings, auditing and investing in backup power requirements, investigating new technology options for alternative power supplies, risk assessments, real-time monitoring of power outages and generators, and reducing single points of failure.

6. Network operators are also thinking carefully about where their infrastructure is located. Having access to quality data and modelling is essential to making the right network and structural design decisions.
7. Central and local government policy on climate adaptation, and related issues such as resilience, natural hazards and emergency management, also has the potential to significantly impact the services network operators can provide. For example:
 - a. Community led or managed retreat could affect our ability to provide services in an economically viable way. This is because the cost of connectivity increases as population decreases and the distance between communities increases. Lack of clear direction on issues such as retreat causes uncertainty for network build and investment.
 - b. If decisions are made to not maintain access to certain roads (due to retreat or continued weather damage) there will be flow-on effects where those roads are corridors for telecommunications and provide access to infrastructure.
 - c. Councils allowing new housing developments in high hazard areas puts pressure on network utilities to install infrastructure that will be at risk. A worse case scenario is houses without utilities.
 - d. Current emergency management settings affect our ability to be prioritised during response to restore services, for example service contractors may not be given access into an affected area to be able to fix infrastructure during a natural hazard emergency event.
 - e. Resilience regulatory settings (such as minimum standards) can result in maladaptation and over investment in the wrong areas. As a result costs increase for consumers without an actual lift in resilience.
 - f. By not adequately supporting critical infrastructure sectors to understand interdependencies between sectors and work together to address them.
8. Telecommunications was not considered in the first national climate change risk assessment. It is important that it be considered alongside other critical infrastructure in the second assessment.

Suggested sources for the risk assessment

9. The TCF has a number of reports that may be of interest to the Commission:
 - a. The [telecommunications sector climate change scenarios](#), produced with the assistance of Tonkin and Taylor. This report identifies a number of driving forces which present risks to the telecommunications sector resulting from climate change. Page 21 of the report includes the list of driving forces.
 - b. The [Telecommunications Emergency Forum Cyclone Gabrielle Post Incident Report](#). This report provides a summary of the impact on telecommunications, restoration efforts, and risk factors.
 - c. A 2023 [TCF report](#) to ministers that discusses the interconnectedness of critical infrastructure, sets out industry resilience plans and identifies what else might be possible with government support.
10. Some of our members (or their parent companies) are climate reporting entities. Their disclosure statements provide information about climate related risks and opportunities at the entity level:
 - a. Chorus: [Climate Statements FY24](#)
 - b. Spark: from page 92 of the [annual report](#)
 - c. One NZ (part of Infratil): [Infratil releases Climate Related Disclosures](#).

Further engagement

7. The TCF Climate Change Group welcomes further engagement with the Climate Change Commission on the risk assessment and other climate issues.
8. Please contact kim.connolly-stone@tcf.org.nz in the first instance if you have any questions about the material we have suggested.