



TCF Submission to
Ministry for the Environment
on the Exposure draft of the Natural and Built Environments Bill
4 August 2021

A. Summary

1. The TCF supports the strategic goals of the National and Built Environments Bill to ensure areas are well-functioning and responsive to growth and other changes. We believe that telecommunications infrastructure enables economic, social and cultural activities to grow and develop, and we want to enable present and future generations to enjoy the benefits that this infrastructure can bring to communities.
2. Telecommunications infrastructure is also important as it provides an underlying foundation for supporting other infrastructure and digital access. It is a key enabler of the digitisation and efficient use of other infrastructure.
3. The TCF considers that the term 'Infrastructure' encompasses telecommunications and this should be reflected in the new legislation, and that the telecommunications sector needs to be included in the process of the Resource Management reforms.

B. Introduction

4. Thank you for the opportunity to comment on the exposure draft of the Natural and Built Environments Bill (the Exposure Draft).
5. This submission is provided by the New Zealand Telecommunications Forum (TCF). 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. The forum facilitates the development of consensus-based, self-regulatory codes, that set standards and specifications for the way members follow procedures internally, and for the way industry interconnects on industry-wide issues. The TCF enables the industry to work together and to discuss issues and topics collaboratively, to reach acceptable solutions that can be developed and implemented successfully.

6. The TCF supports the aims of the Exposure Draft but has several comments. For reasons of expediency, we have kept our comments short, and are prepared to elaborate on any of the points raised if you would like to contact us.

C. General comments

7. The TCF would like to make some general points which underpin its position in relation to the Exposure Draft:
 - i. Telecommunications infrastructure makes a significant contribution to people's wellbeing and the economy. New Zealand ranked 12th in the world for overall digital connectivity in the Global Connectivity Index for 2020¹, up from 13th a year earlier. 155,000 more homes and businesses were connected to UFB fibre network in 2020 – up 9%. 84% of New Zealanders can now access UFB, with 64% connected². Meanwhile, competition across industry has led to mobile coverage being delivered to 98.5% of where people live and work, soon to grow to 99.8%. Every year providers invest approximately \$1.6b³ in new infrastructure and services, and Statistics NZ estimates the telecommunications and information media services sector contributes approximately \$7b annually⁴ to the economy.
 - ii. Telecommunications infrastructure provides an underlying foundation for supporting other infrastructure and digital access. It is a key enabler of the digitisation and efficient use of other infrastructure. Telecommunications infrastructure could be considered the high-performing invisible infrastructure that underlines other sectors as the conduit to enabling connection, and the ever-increasing expansion of the Internet of Things (IoT).

¹ <https://www.huawei.com/minisite/gci/en/index.html>

² Crown Infrastructure Partners, *Quarterly Broadband updates*, <https://www.crowninfrastructure.govt.nz/about/publications/>

³ Commerce Commission, *2020 Annual Telecommunications Monitoring Report*, March 2021, https://comcom.govt.nz/_data/assets/pdf_file/0030/247377/2020-Annual-Telecommunications-Monitoring-Report-Revised-version-16-March-2021.pdf see pg23

⁴ <https://www.stats.govt.nz/tools/which-industries-contributed-to-new-zealands-gdp> 2019 data

- iii. Digital connectivity enabled by telecommunications infrastructure will play an important role in helping to solve today's challenges, from climate change to lifting productivity and innovation. Given the importance the new proposed legislation places on the protection of the environment, it is important to consider the role that telecommunications infrastructure plays in this aim. For example, the Climate Change Commission's final advice to the government for its emissions reduction plan notes precision agriculture as an example of the ways in which technology will help to improve efficiency and reduce environmental impacts in agriculture – it requires digital connectivity and networks to be possible⁵. Furthermore, a recent report by Carbon Trust, commissioned by Vodafone Group, shows the potential for carbon emissions cuts fuelled by hybrid working, using technology to reduce lengthy commutes and large office spaces, and deliver other societal benefits such as the potential for more efficient use of existing infrastructure stock⁶.
- iv. The telecommunications sector has made significant investments into its infrastructure and has a good track record of resilience and responding to emergency and social events, including supporting consumers of telecommunications services across both public and private sectors during Covid-19 lockdowns.
- v. We believe it is important that all New Zealanders have the opportunity to participate in a digital society. Some members of our communities are still not able to access digital services online which are important to be able to participate and contribute to society – like homework, banking, booking doctors' appointments or looking for work or working from home.

D. Comments on specific sections of the Exposure Draft

8. Part 1 Preliminary provisions

3 Interpretation

- i. As noted in the Parliamentary Paper on the Exposure Draft the term Infrastructure is not yet defined in the Bill; however, it typically refers to structures and facilities essential for society⁷. The TCF considers that the term 'Infrastructure'

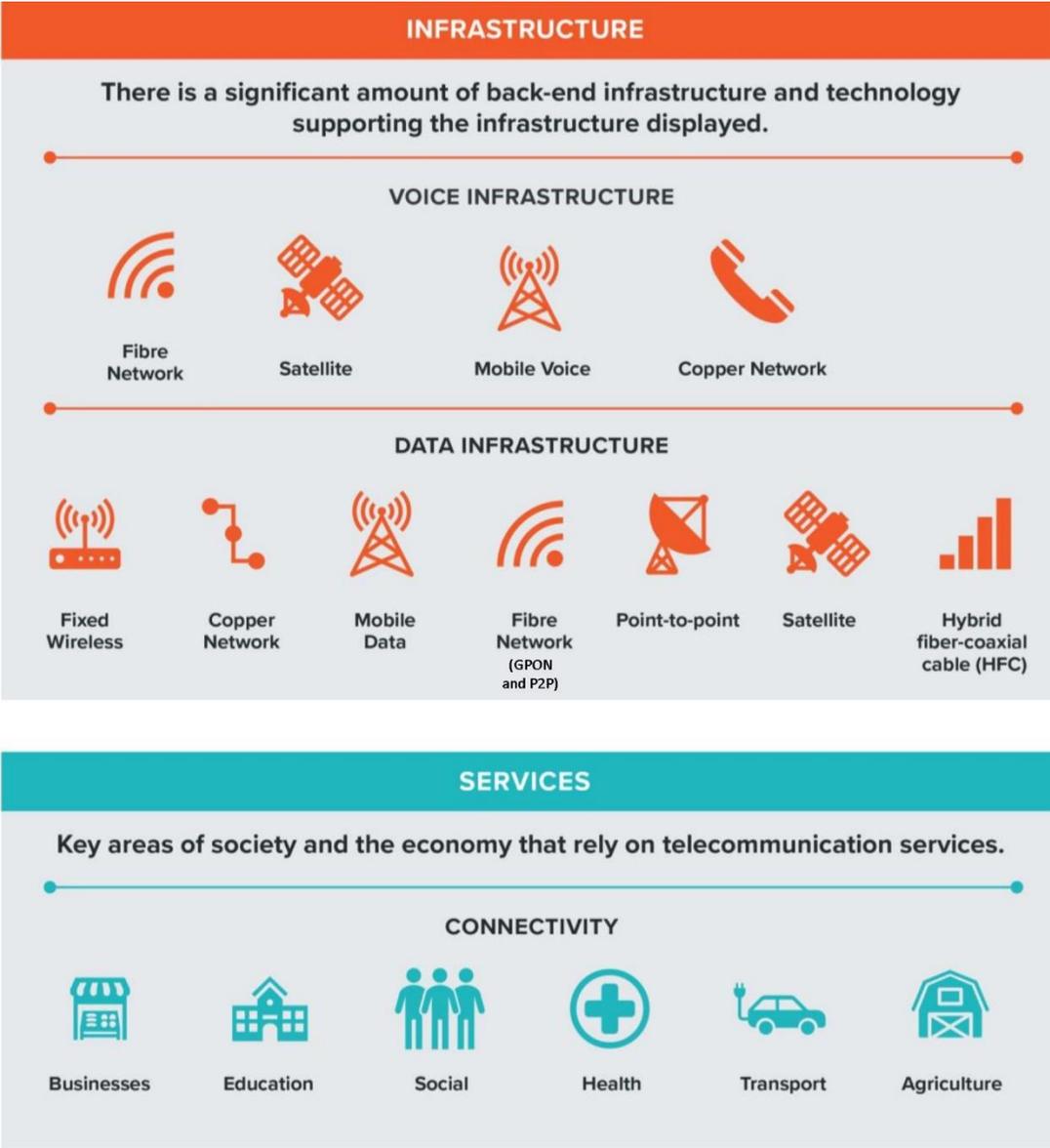
⁵ <https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf>; p. 306

⁶ <https://www.nzherald.co.nz/sponsored-stories/83-million-ways-to-help-climate/NOMMPKDLWFJMF4G74LQDXU2KUU/>

⁷ New Zealand Government, *Natural and Built Environments Bill Parliamentary paper on the exposure draft*, <https://environment.govt.nz/assets/publications/Parliamentary-Paper-on-the-Exposure-Draft-of-the-NBA.pdf> see Appendix 5.

encompasses telecommunications and this should be reflected in the new legislation.

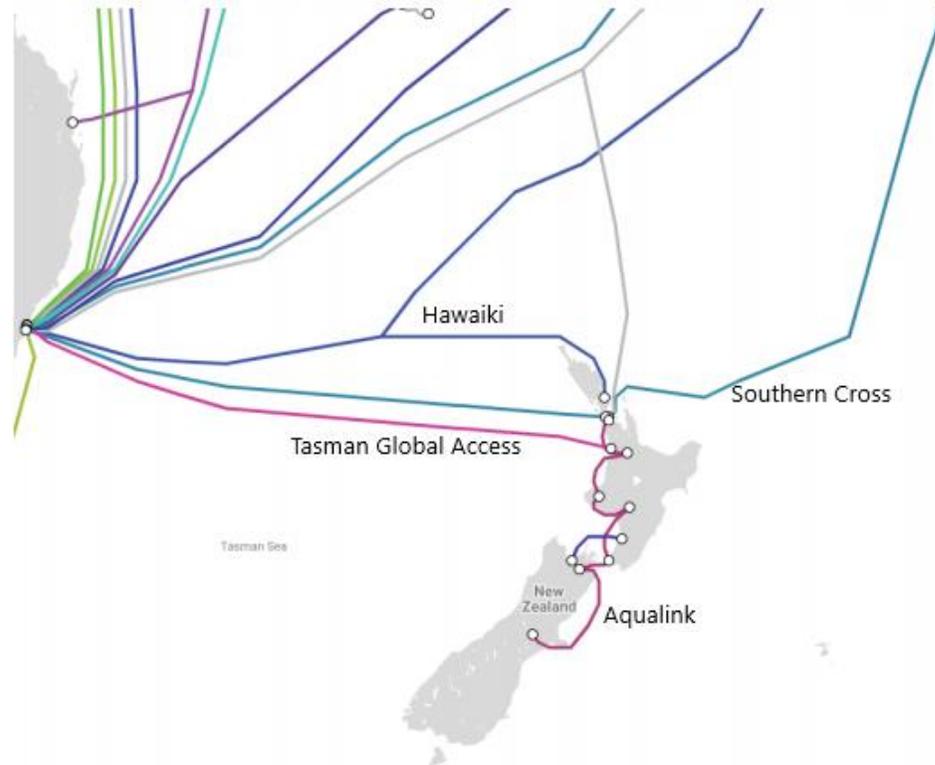
- ii. The telecommunications services that are relied on by many areas of society and the economy are provided via a number of different types of infrastructure and technologies, as illustrated below⁸.



Source: New Zealand Infrastructure Commission, Te Waihangā and TCF

⁸ New Zealand Infrastructure Commission, *State of Play: Telecommunications discussion document 2020*, <https://infracom.govt.nz/assets/Uploads/Telecommunications-State-of-Play-December-2020.pdf>

Beyond the local infrastructure shown above, New Zealand also relies on submarine cable infrastructure to connect to the rest of the world.



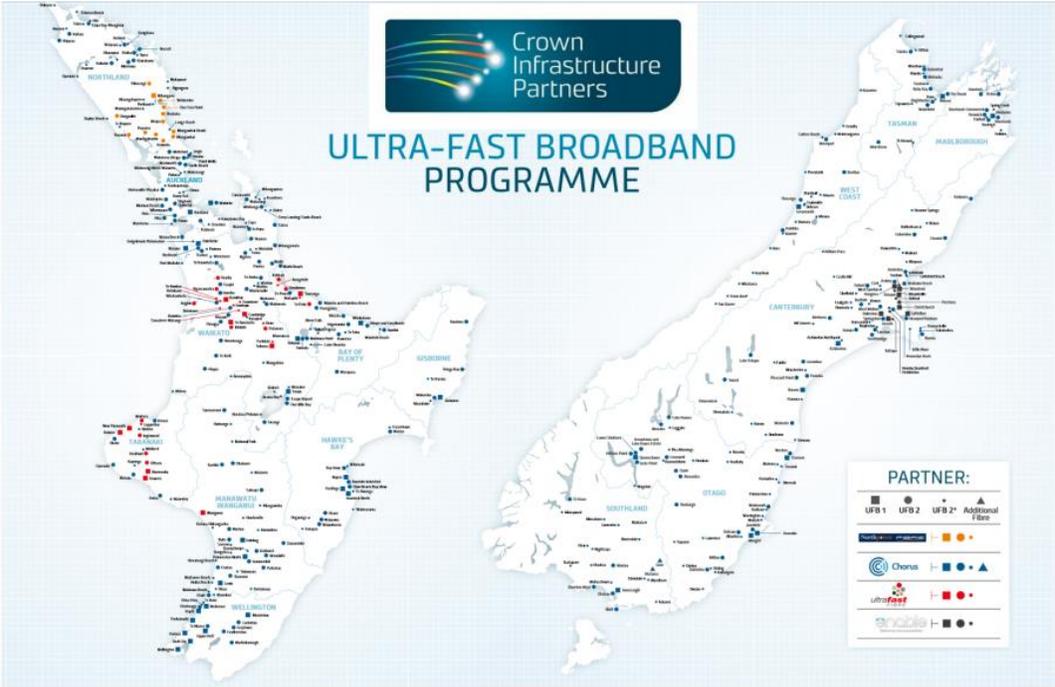
Source: New Zealand Infrastructure Commission, Te Waihanga

A large number of players are involved in providing the various types of telecommunications infrastructures:

- Mobile networks: 2degrees, Spark, Vodafone, the Rural Connectivity Group (RCG) a joint venture subsidiary between the three mobile network operators to roll out a shared 4G network in parts of rural NZ.
- Copper network: Chorus
- Fibre network: Chorus, Enable networks, Northpower Fibre, UFF, Vocus
- Fixed wireless: 2degrees, Spark, Vodafone and about 30 Wireless Internet Service Providers (WISPs), mostly operating in regional or rural areas⁹
- International submarine cables: Southern Cross, Tasman Global Access, Hawaiki
- Domestic submarine cables: Aqualink (Vodafone), Nelson-Levin cable (Spark)

⁹ <https://www.wispa.nz/about/>

The fibre network (UFB) aims to cover 86% of the population by 2022 (covering 405 towns and cities), with the scope of the network shown below.

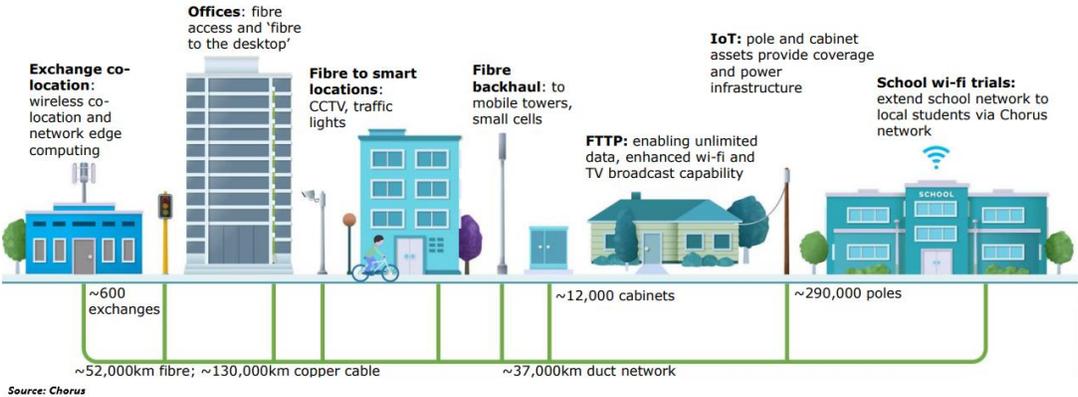


Source: Crown Infrastructure Partners

Chorus is the largest of the UFB network providers, with a schematic of their fibre network shown here.

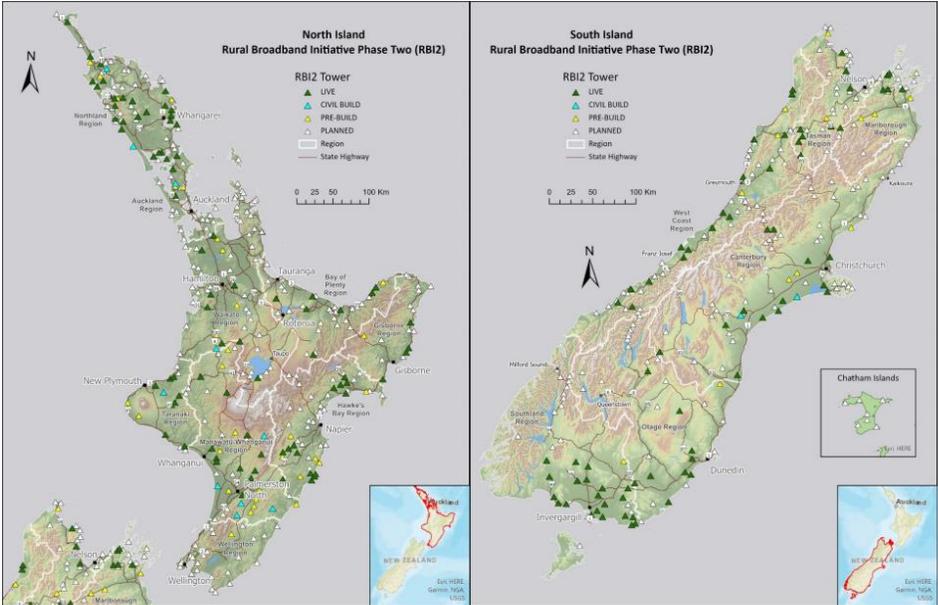
Our network infrastructure

Copper VDSL to ~80% of lines; Fibre to pass ~1.36m end customers by end 2022



Source: Chorus

To extend rural broadband coverage to 99.8% of the population, Crown Infrastructure Partners (CIP) is partnering with the RCG and nine regional WISPS to provide RBI2 coverage, as shown below:



Source: Crown Infrastructure Partners

Examples of RBI2 infrastructure for fixed wireless and mobile are shown below:



Source: Crown Infrastructure Partners

9. Part 2 Purpose and related provisions

6 Te Tiriti o Waitangi

- i. We support the recognition and promotion of decision-making about infrastructure to be guided by Te Tiriti o Waitangi (the Treaty of Waitangi). Issues regarding how to involve and collaborate with Māori in the process of planning, designing, and delivering infrastructure within a co-governance and Māori partnership requires more development and focus. The Resource Management System Reforms require giving effect to Te Tiriti o Waitangi, and without this process being adequately resourced and funded this may impact the development of critical regulatory plans which infrastructure providers rely on.

8 Environmental outcomes

- i. In our experience, the TCF supports the objectives of the environmental outcomes that aim to ensure areas are well-functioning and responsive to growth and change, and that telecommunications infrastructure enables economic, social and cultural activities to grow and develop.
- ii. The development of infrastructure as an integrated process recognises the inter-dependent nature of infrastructure. Telecommunications is an essential and critical input for other infrastructure. For example, an integrated infrastructure approach would see lead organisations take into account other infrastructure that was needed to support the road, community and end uses. However, an integrated approach is not always applied, and this risks infrastructure planning being considered in isolation.
- iii. Across New Zealand, there are significant corridors either existing or proposed (generally designated under the Resource Management Act in District and Unitary Plans). Each designation is for a single infrastructure, either rail, road or the national grid. The designation tool of the Resource Management Act is a critical mechanism to be promoted and retained in the Resource management system reform but needs some significant rethinking about how to support and require the opportunity for integrated infrastructure delivery. Authorities building linear networks should be required to establish that they have consulted with other infrastructure providers and integrated their needs in renewed or new designations. This will ensure that corridors are not just protected for single infrastructure provider such as roads. Telecommunications is an essential and critical component of all infrastructure and supports the users of the designated infrastructure.

10. Part 3 National Planning Framework

- i. For the new National Planning Framework to be effective and create a responsive planning system, the following are also needed:
 - A culture that promotes constructive and open dialogue where professionals in the environment system (RM planners, lawyers, landscape architects, engineering, urban designers etc) are encouraged to explore solutions to achieve positive outcomes for projects, environment and communities. The New Zealand Productivity Commission's Better Urban Planning report¹⁰ concludes that culture and capability issues hampered the successful introduction of the RMA and are an ongoing constraint. This underlines the importance of aligning and building culture and capability for successful reform.
 - National digital platforms act as a one-stop-shop for all 14 Combined Plans and other regulatory plans, lodging resource consents, GIS, information overlays e.g., climate change modelling or natural hazards.
- ii. Private sector infrastructure providers must be included around the Resource Management System table so that voice, experience, and knowledge forms part of a more collaborative and complete conversation on the effective drafting of the new legislations, including the Natural and Built Environment Act, the Strategic Planning Act and the wider National Planning Framework. The experience of telecommunications is different to that of the central government infrastructure providers, such as Transpower, Waka Kotahi, Kiwirail or roads and water of local government. All these networks depend on access and provision of telecommunications. Collaborative processes deliver better outcomes that in turn will support the future of New Zealand. Private sector infrastructure providers should therefore be part of this conversation.
- iii. Telecommunications network upgrading and build depends on the existing National Environmental Standards for Telecommunications Facilities (NESTF). This form of enabling regulation is important to be retained and further developed. An initiative the TCF lead with Transpower and MfE was the development of national and comprehensive regulatory National Planning Standard for all Network Utilities under the RMA. The Planning Standard would mean that the Unitary or District Plan would have nationally consistent objectives, policies, or rules/standards for Network Utilities instead of the complex and inconsistent mixture of regulation we currently have. For example, the telecommunications network is essentially designed, installed and operated in a

¹⁰ New Zealand Productivity Commission, *Better urban planning*, February 2017, <https://www.productivity.govt.nz/assets/Documents/0a784a22e2/Final-report.pdf> see pg 9

nationally consistent manner. Having a consistent regulatory framework would improve procurement and provide consistency and predictability for consenting processes. Our communities would also have more certainty about the look and design of the network. Telecommunications industry have been engaging with the Ministry for Business, Innovation and Employment (MBIE) on the specific changes that would make NESTF more effective and fit for purpose for the roll-out of new technologies, such as 5G and continue to enable the efficient roll-out of fibre. Our view is that the framework needs to be updated and transferred into the new legislation to best enable the effective deployment of telecommunications infrastructure throughout New Zealand.

E. Conclusions

11. The TCF supports the strategic goals of the National and Built Environments Bill and we want to enable present and future generations to enjoy the benefits that telecommunications infrastructure can bring to New Zealand communities.
12. The telecommunications sector needs to be involved in the process of the Resource Management reforms even though we are private sector it is important that we have a voice to represent this essential infrastructure.
13. The TCF is available to discuss further any views set out in this submission and answer any questions the Ministry for the Environment might have.

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