Response to Critical Infrastructure Consultation by the Department of the Prime Minister & Cabinet

Tuatahi First Fibre Limited

Enable Networks Limited

8 August 2023

<u>**Public version**</u>

1. Introduction

1.1 Tuatahi First Fibre (**Tuatahi**) and Enable Networks (**Enable**) appreciate the opportunity to respond to the Department of Prime Minister and Cabinet (**DPMC**) discussion document *Strengthening the resilience of Aotearoa New Zealand's critical infrastructure system*, dated June 2023 (the **Consultation**). Please refer to the Appendix for our responses to specific questions asked in the Consultation document.

1.2 Tuatahi and Enable are local fibre companies (**LFCs**) established in 2011 to deliver the Government's ultra-fast broadband (**UFB**) initiative to towns and cities across the Waikato, Te Moana a Toi, Taranaki, Whanganui and greater Ōtautahi Christchurch areas.

1.3 We supply wholesale fibre access services to retail service providers (**retailers**) who, in turn, package up those services and retail them to consumers. We cannot provide retail fibre (or any other type of) services directly to consumers, and must treat all retailers the same (which means we do not discriminate between retailers on product, price, supply or any other terms).

1.4 Our businesses rely on retailers consuming our fibre services instead of competing broadband services and delivering excellent retail service to fibre consumers. The largest retailers also sell their own competing (4G and 5G) mobile and fixed wireless broadband services.

1.5 The completion of the UFB initiative by the LFCs has been heralded as an outstanding success.[1] The UFB networks were built to deliver a level of performance and reliability far greater than any previous telecommunications, or any other form of utility, has or currently delivers.

1.6 Our networks were constructed to be resilient, and offer a range of enhanced services for consumers who need more resilience in their broadband services. However, because we operate at the wholesale level, regardless of the services we offer (such as fibre diversity, shorter fault restoration service levels, backhaul for network resilience), we cannot compel retailers (or consumers) to purchase those services.

1.7 Any limitations on the availability of service on the UFB networks are primarily due to location specific factors (such as transport routes, natural geography) and proximity to interdependencies (such as electricity). Secondary factors include retailer (and customer) product choice and cost.

2. Executive Summary

2.1 We support the current level of interest and engagement in critical infrastructure resilience, and will continue to engage in this activity if it is properly informed, well-structured and considerate of wider economic and social factors.

2.2 The questions in the Consultation document are not structured to allow us to share more information which we consider relevant to critical infrastructure resilience. Therefore, the structure of this submission is to share our views on the issues the

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[1] https://www.beehive.govt.nz/release/govt-completes-delivery-ultra-fast-broadband-programme

DPMC has raised based on our experience and role as a fibre network operator and supplier of wholesale fibre services.

2.3 In this response, we comment where we support the views expressed in the New Zealand Telecommunications Forum (**TCF**) submission.

2.4 We support the Government taking steps to inform themselves on the issues with New Zealand's current approach to regulating the critical infrastructure system; and where relevant, ideas for possible reforms that may help address these problems.

2.5 We have marked any commercially confidential information contained in this submission as [**CCI**] which we do not want published to protect commercial confidence, and we have provided a separate version that excludes that CCI to be published on the DPMC website.

2.6 In this submission, we:

- support an integrated and collaborative approach to infrastructure resilience via collaboration between Government, infrastructure owners and critical suppliers (electricity, transport, etc.)

- encourage a strategic mindset and efficiencies (e.g. infrastructure sharing)

- note our concerns around overlapping regulations and forecast new statutory obligations around resource management, etc.

- share our high-level views around cost assumptions, our regulated asset base and market (competition) outcomes

- share our experiences with outcomes based standards

- support the focus on national (and cyber) security risks, and note our concerns around data security.

2.7 We do not support, nor believe there are currently grounds to impose, additional regulation on the LFCs. This response supports a request for consideration being given to excluding the LFCs from any new regulations because:

- we are already heavily regulated

- are incentivised by market competition factors to deliver resilient services

- have limited ability (as a wholesaler) to dictate retailer consumption of resilience services

- are largely geographically constrained

- already provide detailed information about our costs and asset conditions in our annual disclosures.

3. Process

3.1 This must be a long-term collaborative process, and we support starting with looking at the current level of resilience (both in terms of investment and performance) within each sector to identify which sectors have been investing more (and less) in resilience, and those who have done so with (and without) regulation.

3.2 A rushed process will deliver poorly informed, unstructured, and confused outcomes.

For telecommunications, the collaboration must include Government, infrastructure owners and critical suppliers to our industry (electricity, transport, etc.).

3.3 We support the TCF submission recommendation to follow the OECD approach. We believe that process will encourage greater participation and less resistance, and is more likely to deliver better outcomes in relation to improved interdependencies and information sharing via the use of voluntary tools.

4. Telecommunications infrastructure resilience

4.1 We support the description of telecommunications infrastructure, and the level of investment in that infrastructure, noted in the TCF submission.

4.2 We are concerned the Consultation material implies there has been a lack of investment in telecommunications resilience. As noted in the TCF submission, the level of current and future planned investment in resilience has remained high for a substantial period of time.

5. LFC regulation and market conditions

5.1 The New Zealand telecommunications market is highly competitive[2], and this has delivered a wide-range of technology choices and prices to consumers.

5.2 As a result of this competitive tension, the LFCs are naturally incentivised to invest in innovation and resilience to meet retailer, consumer and shareholder needs – and this is embedded in the Telecommunications Act 2001 (**Act**). This is not the same for publicly owned infrastructure, such as water and transport (roading), where there has been significant underinvestment and frequent failures.

5.3 The LFCs are already heavily regulated under Part 6 and Part 4AA of the Act, as well as UFB contracts and related instruments. The fibre regulatory framework requires us to report and make extensive information available to the regulator and interested stakeholders, including on our network asset and financial investment and performance (including resilience) and financial performance.

5.4 As our fibre network is regulated by the Commerce Commission under Part 6 of the Telecommunications Act, we already have strong regulatory scrutiny of our resilience investments. The Commission reviews whether our planned expenditure is prudent and efficient and sets mandatory quality standards that we must meet (or face prosecution and financial penalties). The quality standards include availability of fibre services, so our investment in a resilient fibre network is an important component of meeting our regulatory standards.

5.5 Any assumption that the current level of resilience in critical infrastructure in Aotearoa is inadequate and a generalisation that is not supported by the data. It is particularly undervaluing the outcomes of the UFB fibre builds. Our network architecture requirements embedded a high-level of resilience (network availability).

5.6 The LFCs each have their own voluntary programmes of risk assessments and resilience investments to improve the resilience of our fibre services, including:

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[2] https://comcom.govt.nz/__data/assets/pdf_file/0028/318907/2022-Annual-Telecommunications-Monitoring-Report-15-June-2023.pdf

- improved utilisation of fibre ducts to offer services in different directions

- working with local authorities and roading contractors to install new fibre ducts (ahead of demand) to meet growth and offer alternative fibre routes

- diverse fibre routes from central offices to our end-users, so if one route is damaged or disrupted, their service can be moved to the alternative route

- supplying diverse fibre routes to mobile (cell tower) sites

- testing new point-to-point fibre product services and a back-up to complement existing dark fibre services

- undertaking a full climate and other event (fire, flood, etc.) risk assessment of every component of our layer 1 and layer 2 fibre network to create a long-term event (risk) mitigation and asset management plan.

5.7 There is a high likelihood the outcomes of this Consultation result in regulatory overlap and confusion, as well as unnecessary and avoidable (additional) compliance costs, with such a vast amount of new and pending legislative reform (Emergency Management Bill, this paper, RMA reform, climate-related disclosures, etc). Therefore, any consideration being given to creating new regulation quickly needs to be moderated until the current telecommunications regulatory and resilience frameworks are better understood.
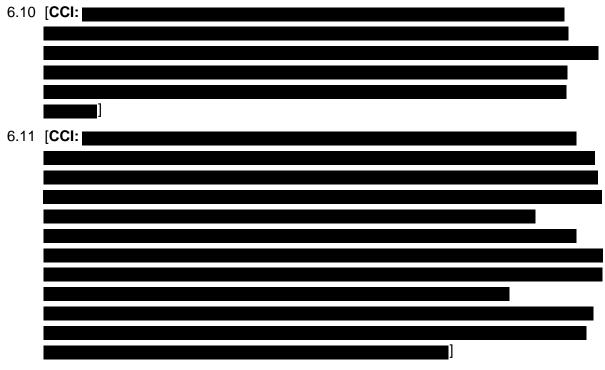
6. Resilience approach, investment (costs) and market competition

6.1 We encourage a strategic mindset and giving consideration to identifying the achievable, efficient and effective outcomes, such as infrastructure sharing.

6.2 We are unclear what the best resilience solution the Government is seeking, but we are committed to working with officials to identify that solution before any sort of discussion is needed, or views can be fully formed, in relation to costs and where those costs land.

6.3 For the purposes of this submission, we expect consideration must be given to the following factors when the subject of costs is raised:

- it cannot be assumed that investment in resilience will save money in long run

- not all resilience investment is sensible, nor does it improve outcomes, or living costs, or conditions for consumers

- a level of Government investment for uneconomic levels of investment in resilience must be *on the table*

- infrastructure interdependencies and co-design resilience options must form part of the conversations

- there are other regulatory systems, such as resource management, investment conditions, regulation and taxation, which can be used to support and enable the investment in resilience-related activities

6.4 It is widely acknowledged that the UFB rollout was a great example of a successful public-private partnership (**PPP**) because it was delivered on time and on budget and resulted in superior technological connections and coverage[3], and we can understand why there is a belief that the beneficiaries of the increased investment should pay for it. However, any assumption that shareholders will benefit from any forced or voluntary decision to increase investment in resilience is over-simplifying what we know of a complex topic.

6.5 We submit that a co-funding (PPP) model for resilience investment – for situations where the commercial business case cannot support it – must be put up for consideration. It will not require a recreation of the original UFB framework because Part 6 already has a reporting and monitoring framework to track the delivery and performance of the fibre networks. There is presently a tested and robust grant funding model with Crown Infrastructure Partners in place for connecting customers outside of our UFB coverage area in the Rural Connectivity Upgrade programme.

6.6 As a regulated provider, we cannot confidently support the assumption that we can recover our resilience costs as part of our regulated asset base and resulting pricing (the same way electricity lines companies can) because we operate in a competitive market where consumers have a range of technology and affordability options when it comes to their broadband services, i.e. consumers of fibre services are not beholden to fibre for their broadband and voice needs. Our experience is that retailers (and consumers) are less willing to pay for the additional cost to invest in more services, including resilience. For example, we offer fibre path diversity products which many of our retailers choose not to consume to keep their retail prices competitive and attractive to their customers.

6.7 We also expect that if the same level of investment in resilience is applied to other infrastructure assets, such as electricity and transport, we are not confident in any assumption that consumers can absorb those additional costs (in for the form of price I increases, targeted levies, tolls, etc.).

6.8 As noted above, it does not matter what resilience services we invest in and offer, it is up to retailers to consume them. When it comes to resilience, our largest retailers also offer competing alternative services in the form of cable, mobile or wireless technologies, which we are already seeing consumers churn off fibre in favour of these lower quality products as a result of the cost of living challenges that are unlikely to end any time soon.[4]

6.9 Even though our regulatory framework theoretically allows us to recover the costs of our investment from retailers (who those costs through to their customers), any regulatory requirement to increase our investment in services that are unlikely to be consumed will unfortunately result in higher wholesale (and therefore retail) prices for our services. This makes us less competitive, which may result in consumers having less affordable choices and lower quality products.

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[3] https://www.nzherald.co.nz/business/infrastructure-report-finding-a-new-funding-path/OHFKTNWZPBBANCXBARFKIFARGE/

[4] https://www.stats.govt.nz/information-releases/household-living-costs-price-indexes-march-2023-quarter/; and
https://www.stats.govt.nz/news/cost-of-living-remains-high-for-all-household-groups/

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Collaboration

6.12 We encourage the Government to collaborate with our industry, not work in isolation, to determine the appropriate resilience outcomes and leave it up to each critical infrastructure operator to determine the most efficient and cost-effective way to achieving this.

6.13 The collaborative approach should also extend to allowing telecommunications infrastructure operators (e.g. fibre and other fixed line, mobile, wireless, and satellite providers) to freely collaborate and contribute to a resilience solution that won't unfairly or disproportionately burden them, the Government, or the consumer. This may include using a combination of technologies (and network infrastructure) to build a back-up network that can be activated in the event of an emergency (weather, cyber or other) event.

6.14 We support the statements in the TCF submission under the headings *The taxpayer (government) doesn't pay to fix our infrastructure*, *It is cheaper to invest ahead of time than to pay to fix things when they break*, and *Will government subsidise increased costs for people experiencing income poverty?*

7. Minimum standards

7.1 As noted above in paragraph 3.3 above, we support the proposition that the Government should follow the OECD approach which means not leaping straight to minimum standards or policy of any form. However, when and if minimum standards are brought in, we note the following:

- these do not need to be overly burdensome or replicate what already exists, because that will not support or encourage the level of private investment in infrastructure assets being proposed[5]

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[5] https://infrastructure.org.nz/achieving-future-fit-infrastructure-outcomes-government-priorities-for-2022-23/;

- we support an outcomes-based model, which is not prescriptive, because we know that approach worked in the UFB network (via the use of service levels for network availability and fault restoration)

- reference should be given to the Australian requirement to adopt a standard process or risk-based management framework, and annual reporting on clearly defined critical assets and mitigation strategies

- the advantage of this approach is that it could work for different types of critical infrastructure, and regardless of where entities are at with their resilience journey

- it follows therefore that a *one size fits all* approach will not work for telecommunications due to the mix of technologies involved

- any standards must be consistent with other legislation (including telecommunications regulation)

- the initial focus should be known risk areas, both geographically and technologically

- we support the statements in the TCF submission relating to *minimum standards*.

7.2 If minimum standards are to be introduced, we would only support a proportionate approach, which is the same approach we supported when building our current Part 6 regulatory framework. We would not support a singular approach to any form of minimum standards because that would ignore our level of investment in resilience, and high level of network (availability) performance, to-date. It would also create additional costs without any clear improvement objectives for our retailers and consumers on what they already receive from us.

8. Cyber risks[6]

8.1 We support the points made in the TCF submission relating to cybersecurity.

8.2 We also support making national (and cyber) security risks a priority, including improving the resilience for Government databases from data breaches.[7] The 2023 Crime and Victims Survey notes 510,000 instances of fraud and deception over 12 months, an increase of 21.5% since the survey began in 2018. The New Zealand Police [Financial Crime Unit](#) believes that New Zealanders lose between $20-$30m a year to scams of various kinds. The increase in fraud is being driven by the rise of cyber fraud, with technology advances (chatbots, cyber-currency, AI) extending criminal activity beyond accessing online bank accounts to include faked kidnapping.[8]

8.3 We support the statements in the TCF submission under the headings *Powers for national security risks*, *Information sharing and collection*, *Government responsibility and coordination*, and *The resource management system as a barrier to resilience*.

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https://www.national.org.nz/infrastructureforthefuture

[6] https://www.stuff.co.nz/national/politics/132658217/its-a-bit-bleak-government-officials-warn-of-the-future-new-zealand-faces; https://bills.parliament.nz/v/4/2bea276d-f87f-47c8-fe95-08db5cd3fe0f

[7] https://www.justice.govt.nz/justice-sector-policy/research-data/nzcvs/

[8] https://edition.cnn.com/2023/04/29/us/ai-scam-calls-kidnapping-cec/index.html

Appendix: Response to selected questions

Key questions	Tuatahi and Enable responses
What do you think the Government should do to enable greater information sharing with, and between, critical infrastructure owners and operators?	We support the Government promoting voluntary information sharing, and believe this will help to and identify risk areas. Regulation should only be considered if a voluntary approach proves to be unproductive. Any new information sharing obligations must complement our current reporting obligations, to avoid duplication. We would need reassurances in the form of enforceable commitments to keep any information we provide secure to protect the security of our networks and any commercial and personal data we share.
Would you support the Government having the ability to set, and enforce, minimum resilience standards across the entire infrastructure system? If so, what type of standard would you support (e.g. requirement to adhere to a specific process or satisfy a set of principles)?	We have not been able to use the information in the Consultation document to form a view or comment on how any standards should be set, nor the cost implications. We will note that, in our experience, using standards that are too prescriptive do not support innovation, and those can also quickly become out-of-date and unable to keep up with technological advancements.
Would you support the Government investing in a model to assess the significance of a critical infrastructure asset, and using that as the basis for imposing more stringent resilience requirements?	We have attempted, several times, to use a *real-time* monitoring and reporting model for our business, and it does not deliver the benefits that were assumed. There are several external factors outside of our reasonable controls which can, without notice, affect the reliability of *real time* measurements. Any model for the fibre wholesale operators must be adaptable (for a range of situations and process and technology advances).
What criteria would you use to determine a critical infrastructure asset's importance?	Depending on who is asked, the level of importance of our wholesale fibre services (and any services provided by other infrastructure asset operators) will vary greatly. For that reason, we believe the starting point must be to identify what services we provide are needed – and what is needed to deliver those services (i.e. services provided by other infrastructure, e.g. electricity).

Key questions	Tuatahi and Enable responses
Do you think there is a need for a Government agency or agencies to have clear responsibility for the resilience of New Zealand's critical infrastructure system? If so: • do you consider that new regulatory functions should be the responsibility of separate agencies, or a single agency? • do you consider that an existing entity should assume these functions or that they should be vested in a new entity? • how do you see the role of a potential system regulator relative to sectoral regulators?	We currently deal with 3 Government agencies (Commerce Commission, MBIE and Crown Infrastructure Partners), and 1 non-Government agency (Telecommunications Forum) to stay across all of our regulatory obligations. The appointment of another (new or existing) agency would add another layer of overhead and complexity that we think can be avoided. We think any new quasi/informal regulatory oversight of critical infrastructure resilience should and can be assigned to the Commerce Commission to align with its existing role in the telecommunications industry and understanding of our existing regulatory framework and operating model via the current reporting systems.

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