Title: **Testing our thinking - Developing an enduring National Infrastructure Plan**

Organisation: **Enable Networks Limited**

Reference: **NIPC24-0002931** | Submitted: **10/12/2024 03:07 pm** | Submitted by:

Summary of information submitted

Page 1 - Introduction

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We're seeking feedback

Our Discussion Document, Testing our thinking: Developing an enduring National Infrastructure Plan, sets out our thinking as we begin work to develop a National Infrastructure Plan. The Discussion Document sets out what we expect the Plan will cover and the problem it's trying to solve, as well as the approach we're proposing to take to develop it.

We're sharing this now to test our thinking and give you the chance to share your thoughts. Let us know if we've got it right or if there are issues you think we've missed.

We'll use your feedback as we develop the Plan. We'll be sharing our thinking by presenting at events around the country, hosting workshops and webinars, and sharing updates through our website, newsletter, and social media. We'll also seek feedback on a draft Plan before publishing the final Plan in December 2025.

Submission overview

You'll find 17 main questions that cover the topics found in the Discussion Document. You can answer as many questions as you like and can provide links to material within your responses. On the final page (6. Next steps) you can provide any other comments or suggestions that you would like us to consider as we develop the National Infrastructure Plan. Submissions are welcomed from both individuals and organisations.

A few things to note:

- You can save progress using the button at the top right of this form.
- A red asterisk (*) denotes a mandatory field that must be completed before the form can be submitted.
- We expect organisations to provide a single submission reflecting the views of their organisation. Collaboration within your organisation and internal review of your submission (before final submission), is supported through our Information Supply Platform. You'll need to be registered with an Infrastructure Hub account, and be affiliated with your organisation to utilise these advanced features. Many organisations will already have a '*Principal respondent*' who can manage submissions and assign users at your organisation with access to the draft responses.
- Submissions will be published on our website after the closing date. The names and details of organisations that submit will be published, but all personal and any commercial sensitive information will be removed.

Further assistance

Each submission that is started is provided a unique reference identifier. These identifiers are shown in the top right of each application page. Use this identifier when seeking further assistance or communicating with us about this submission by using one of the following methods.

- Use info@tewaihanga.govt.nz to contact us with any questions relating to our Discussion Document and consultation.
- Use inform@tewaihanga.govt.nz for help managing roles and permissions of user accounts affiliated with your organisation in the Information Supply Platform (ISP).

Submission method

Our preferred method is to receive responses through this form. However, we anticipate some submitters will wish to upload a pdf document, especially where their submission is complex or long. If this submission method is necessary, please use this word template and save as a pdf. We ask that you retain the structure and headings provided in the template as this will support our processing of responses.

Select a submission method

To continue, select the method you will be using.

Online form

Page 2 - Context for the Plan

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Testing our thinking

The Discussion Document includes five sections. Below we're seeking feedback on why we need a National Infrastructure Plan. We also want to test our thinking on our long-term needs and make sure we have a clear view of what investment is already planned.

Section one: Why we need a National Infrastructure Plan

A National Infrastructure Plan can provide information that can help improve certainty, while retaining enough flexibility to cancel or amend projects as circumstances or priorities change.

1. What are the most critical infrastructure challenges that the National Infrastructure Plan needs to address over the next 30 years?

As mentioned, clearly there are much larger infrastructure deficits in sectors other than telecommunications. In terms our sector we make two comments:

· ***High quality internet access to rural New Zealand is vital to improving productivity**. We note a large amount of New Zealand's wealth and exports are generated by a rural sector with poor internet access, which hampers what it could achieve. In considering the challenge of expanding high quality internet access:*

o ***Regulation is stopping innovative solutions**: Enable is interested in using its expertise and access to capital to be more creative in how to address this challenge. However, we have restrictions from Government that mean we are only allowed to provide wholesale fibre services, which limits what we can do. This is an example of where regulatory settings established to protect the Government's UFB investment are now out of date (particularly as Enable has fully repaid the original Crown loan).*

o *In saying this, it should always be noted that the telecommunications sector cannot, on its own, fund non-economic initiatives such as extending connectivity to remote regions. **Partnerships and co-investment from government and other parties is always required to fund non-economic and social initiatives**.*

· ***Case study: False economy of developers saving costs and not installing fibre**: Providing housing infrastructure is a major challenge for many parts of the country, and Enable services two of the fastest growing districts – Selwyn and Waimakariri. We note that infrastructure costs for greenfield development are high, and due to this we are seeing some examples of developers persuading councils that they do not need install fibre in new developments by arguing that fixed wireless internet is an adequate alternative. This ultimately is highly inefficient as residents then have to bear the cost of ripping up new footpaths to install fibre if they want it. Again, it's important local councils have high quality regulation and continue to require fibre to avoid this inconsistency and ultimately the reduction in consumer choice and consumer access to the higher consistency and reliability of broadband.*

2. How can te ao Māori perspectives and principles be used to strengthen the National Infrastructure Plan's approach to long-term infrastructure planning?

[Note: This is an introduction to our submission rather than a response to Q2, but we were unable to add in the online submisison form] Enable is the local fibre company of the greater Christchurch region, reaching over 218,000 properties and more than 157,000 connections (see map opposite). This represents 11% of New Zealand's fibre connections. Alongside Chorus, TFF and Northpower (the Local Fibre Companies (LFCs)), we rolled out fibre to nearly 87% of the New Zealand population in around 12 years, as part of one of the most successful public-private partnerships in New Zealand.

We recognise there are much larger challenges in other infrastructure sectors than broadband/ telecommunications. As noted by the Commission in the case study on page 64, the ultra fast fibre (UFF) roll-out was a highly successful example of what can be achieved when the regulatory and commercial settings are right.

However, the fibre sector is now in a phase where technological change has radically increased competition, and in this submission we share our thoughts in how regulatory settings can keep pace with the change and be optimum when infrastructure is operating in an uncertain environment.

We also share some of our experience in building and operating infrastructure, and some case studies that show a practical level of detail that helps show lessons that can be applied to address wider infrastructure issues.

Section two: Our long-term needs

The National Infrastructure Plan will reflect on what New Zealanders value and expect from infrastructure. To do this, the Plan needs to consider New Zealanders' long-term aspirations and how these could be impacted over the next 30 years.

3. What are the main sources of uncertainty in infrastructure planning, and how could they be addressed when considering new capital investments?

***Case study: New technology substitutes creating uncertainty**: In the fibre sector there is significant uncertainty of how new technologies might impact future demand. For example, there has been a rapid growth of fixed wireless broadband from 3% market share in 2016 to 17% in 2022[1], substantially reducing fibre usage.*

Further as we look forward, GSMA Intelligence suggests globally that FWA is the favourite business case of 5G and that 5G is now further fuelling significant FWA growth. 5G FWA grew 55% to date in 2024 and outpaced what FWA was able to historically achieve. Also it is important to note as a backdrop that according to the OECD, NZ has the eighth highest mobile broadband subscription rate out of its 38 countries.

The same speed of uptake could happen with low orbiting satellite from companies such as Starlink. The important take-aways from this are:

- *We must ensure **regulation is technology neutral** and does not penalise one technology form over another. For example, fibre to the home is highly regulated, whereas satellite has very little regulation applied to it[2].*
- ***Regulation must adequately recognise increased asset stranding risk** in investment returns. With the threat of technology alternatives, the asset stranding risk of fibre has massively increased. While the Commerce Commission has rules that consider asset stranding, the level of compensation for the risk is so small, that in our opinion, it substantially differs from the compensation a commercial investor would require. This reduces incentives to invest.*

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[1] Source is IDC, and connections as at December 2023

[2] For example, satellite providers are not required to be part of a disputes resolution scheme, do not pay some industry levies, and do not have to complete mot Commerce Commission information disclosure.

Section three: What investment is already planned

We already gather and share data on current or planned infrastructure projects through the National Infrastructure Pipeline. This data, alongside other information gathered by the Treasury or published by infrastructure providers, helps to paint a picture of investment intentions.

4. How can the National Infrastructure Pipeline be used to better support infrastructure planning and delivery across New Zealand?

No response provided

Section four: Changing the approach

We have used our research and publicly available information on infrastructure investment challenges to identify key areas for change. The next question and the following three pages seek further detail on the three themes in section four of our paper. Within each of the three themes, we explore some topics in more detail, outlining the evidence, discussing the current 'state of play', and asking questions about where more work is needed.

5. Are we focusing on the right problems, and are there others we should consider?

***Duplication of 5G infrastructure and fibre**: With the large infrastructure deficits in New Zealand, as a country we need to rigorously evaluate where multiple infrastructure investments provide a similar service and if they are needed. For example, Mobile Network*

Operators (MNOs) are investing heavily in 5G cell towers and offering 4G and 5G fixed wireless to homes where a fibre connection already exists.

We completely acknowledge competition has a wide range of benefits and gives consumer choice, but there is a question of how efficient this is for New Zealand as a whole when the Government has subsidised a far superior technology in fibre, but market settings mean MNOs earn higher margins from selling their own infrastructure in fixed wireless.

Wholesale fibre companies offer a product at a price and quality that easily competes with 4G fixed wireless, but as we are not allowed to retail it to customers, we lose out as. MNOs, being vertically integrated, are incentivised to sell their own product with higher margins.

Page 3 - Capability to plan and build

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Changing the approach — Capability to plan and build

Section four looks at changes that we can make to our infrastructure system to get us better results. We've broken these changes down into three themes: capability to plan and build, taking care of what we have, and getting the settings right.

For the first theme, we look at three key areas:

- Investment management: Stability, consistency, and future focus
- Workforce and project leadership: Building capability is essential
- Project costs: Escalation means less infrastructure services.

Investment management: Stability, consistency, and future focus

We're interested in your views on how we can address the challenges with government infrastructure planning and decision-making.

6. What changes would enable better infrastructure investment decisions by central and local government?

No response provided

7. How should we think about balancing competing investment needs when there is not enough money to build everything?

No response provided

Workforce and project leadership: Building capability is essential

We're interested in your views on how we can build capability in the infrastructure workforce.

8. How can we improve leadership in public infrastructure projects to make sure they're well planned and delivered? What's stopping us from doing this?

No response provided

9. How can we build a more capable and diverse infrastructure workforce that draws on all of New Zealand's talent?

No response provided

Project costs: Escalation means less infrastructure services

We're interested in your views on further opportunities to improve our ability to deliver good infrastructure at an affordable cost.

10. What approaches could be used to get better value from our infrastructure dollar? What's stopping us from doing this?

***Case study: Small companies delivering efficiency**: Enable is a small, but highly efficient company. The table below shows the average regulatory asset base per connection for Enable compared to the other LFCs, and we note all the smaller LFCs have a value less than Chorus. While we don't have the economies of scale of Chorus, this shows smaller companies can be highly efficient and deliver value to consumers.*

	Total Connections	RAB ($)	RAB/Connection	Opex ($)	Opex/connection
Northpower Fibre	23,791	94,618,000	3,977	5,657,000	238
Tuatahi First Fibre	184,060	751,911,000	4,085	36,943,000	201
Enable Networks	**150,961**	**641,096,000**	**4,247**	**20,758,000**	**138**
Chorus	1,060,100	5,951,723,000	5,614	179,317,000	169

Source: Disclosure Year 2023 Information Disclosures

Enable also has the lowest operating expenditure per connection. However, we are finding increasing regulation adding substantial costs to our business, and this has a disproportionate impact on smaller companies.

We find government departments and regulators have a tendency to request substantial information, but do not consider the costs to the company to provide this. It's important to lower the regulatory burden as much as possible, e.g. having high quality cost benefit tests and continual assessment of if the data collected is actually being used.

Changing the approach — Taking care of what we've got

The second theme in section four looks at how we can get better at taking care of what we have. It looks at three areas:

- Asset management: Managing what we already have is the biggest task
- Resilience: Preparing for greater disruption
- Decarbonisation: A different kind of challenge.

Asset management: Managing what we already have is the biggest task

Asset management means looking after our infrastructure. We are interested in your views on how we can improve planning for this.

11. What strategies would encourage a better long-term view of asset management and how could asset management planning be improved? What's stopping us from doing this?

No response provided

Resilience: Preparing for greater disruption

We are interested in your views on how we can better understand the risks that natural hazards pose for our infrastructure.

12. How can we improve the way we understand and manage risks to infrastructure? What's stopping us from doing this?

The Government correctly had a focus on reviewing the resilience of critical infrastructure. It is widely recognised that telecommunications is part of this, and an enabler of technology use and other types of infrastructure. However, it's important that any Government regulation needs to:

- *Be consistent across regulatory regimes dealing with issues such as emergency management, resilience, and resource management*
- *Understand that ongoing deployment is necessary for resilience – the industry needs to be able to do this work to connect communities and support businesses*
- *Appreciate that interdependencies with other infrastructure (such as electricity and roads) make mandated response and restore times and other resilience standards unhelpful.*

· *Recognise that fibre itself has been shown to be highly resilient to earthquakes and floods in Christchurch. We note that at a national level there may be weaknesses, but again any regulation in this area should be proportionate to the risk.*

We support the points made in the Telecommunications Forum submission (TCF) which provide more detail on critical infrastructure dependencies, nationally consistent and publicly available data and uncertainty on the Government's climate adaptation plan.

Decarbonisation: A different kind of challenge

We're interested in your views on how we can improve understanding of the decarbonisation challenge facing infrastructure.

13. How can we lower carbon emissions from providing and using infrastructure? What's stopping us from doing this?

No response provided

Page 5 - Getting the settings right

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Changing the approach — Getting the settings right

The third theme in section four looks at how we can get our settings right to get better results from our infrastructure system. It looks at three areas:

- Institutions: Setting the rules of the game
- Network pricing: How we price infrastructure services impacts what we think we need
- Regulation: Charting a more enabling path.

Institutions: Setting the rules of the game

We're interested in your views on what changes to our infrastructure institutions would make the biggest difference in giving us the infrastructure we need at an affordable cost.

14. Are any changes needed to our infrastructure institutions and systems and if so, what would make the biggest difference?

The Government correctly had a focus on reviewing the resilience of critical infrastructure. It is widely recognised that telecommunications is part of this, and an enabler of

technology use and other types of infrastructure. However, it's important that any Government regulation needs to:

- *Be consistent across regulatory regimes dealing with issues such as emergency management, resilience, and resource management*
- *Understand that ongoing deployment is necessary for resilience – the industry needs to be able to do this work to connect communities and support businesses*
- *Appreciate that interdependencies with other infrastructure (such as electricity and roads) make mandated response and restore times and other resilience standards unhelpful.*

· *Recognise that fibre itself has been shown to be highly resilient to earthquakes and floods in Christchurch. We note that at a national level there may be weaknesses, but again any regulation in this area should be proportionate to the risk.*

We support the points made in the Telecommunications Forum submission (TCF) which provide more detail on critical infrastructure dependencies, nationally consistent and publicly available data and uncertainty on the Government's climate adaptation plan.

Network pricing: How we price infrastructure services impacts what we think we need

We're interested in your views on further opportunities to improve network infrastructure pricing.

15. How can best practice network pricing be used to provide better infrastructure outcomes?

No response provided

Regulation: Charting a more enabling path

We're interested in your views on further opportunities to improve regulation affecting infrastructure delivery.

16. What regulatory settings need to change to enable better infrastructure outcomes?

No response provided

Page 6 - What happens next?

Additional information to support our development of the Plan

Section five in the Discussion Document is on the next steps. In this section, we're asking you for any additional comments, suggestions, or supporting documentation that we should consider in our development of the National Infrastructure Plan.

17. Do you have any additional comments or suggestions that you would like us to consider as we develop the National Infrastructure Plan?

Click 'Add another' to add multiple suggestions or comments.

Item 1

No response provided

18. Attach any documents that support your submission

Click 'Add another' to add multiple attachments in PDF format.

Document 1

No attachment

Thank you for your response

Thank you for providing feedback on our Discussion Document. We'll use your comments as we continue to develop the Plan. This will not be the only opportunity for you to provide feedback, but it is an important way to test our emerging thinking on the development of an enduring National Infrastructure Plan.

If you have prepared a submission on behalf of an organisation, you'll need to be an authorised *respondent* to make the final submission. If you entered a new organisation during sign-up, or your organisation does not already have a *Principal respondent* assigned, you will have been asked to nominate yourself or someone else for this role as you started this submission. Our team will have worked to verify these accounts allowing *Principal respondents* to manage access and assignment of requests for information to people within your organisation.

If you require any assistance please reach out to our team at inform@tewaihanga.govt.nz.