



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

Reference: **NIPC24-0002924** | Submitted: **30/11/2024 09:17 pm** | Submitted by:

## Summary of information submitted

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### Page 1 - Introduction

[NIPC24-0002924](#)

### We're seeking feedback

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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

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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

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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](mailto:info@tewaihanga.govt.nz) to contact us with any questions relating to our Discussion Document and consultation.
- Use [inform@tewaihanga.govt.nz](mailto: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

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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](#)

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

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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?

*The greatest challenge is to develop the infrastructure needed to offset dry years, as soon as possible. As Keith Turner (Transpower) noted in 2022 with a prophetic accuracy of the 2024 dry winter impact: Extreme dry years are the single-biggest risk not only to New Zealand's power system but also to its wider economy.*

*Turner also noted that any option must be large enough to replace the role that Huntly's coal and gas-fired turbines currently have in the electricity system, while also being renewable. He emphasised that in addition to size, this must be long term, possibly built several years before it is ever needed.*

*After years of investigation, the NZ Battery research team in MBIE found that new infrastructure (not new regulation and market settings) was the only option for dealing with dry years. The NZ Battery finalised the possibilities down to just two: a pumped storage scheme at Lake Onslow or a composite alternative comprised of new flexible geothermal and biofuel. The build cost for the Onslow scheme was \$15.7b. The composite scheme was cheaper at \$13.5b but with a higher running cost.*

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

*No response provided*

## Section two: Our long-term needs

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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?

*The main source of uncertainty for dry year infrastructure planning is that there are existing incompatible political views. The coalition government will not accept that public funding needs to be used for building infrastructure against dry years - insisting instead that regulation changes and new policy settings will allow the market to meet the task. That is, as far as building dry year infrastructure is concerned, a "bipartisan infrastructure pipeline" is impossible.*

*The only way this issue can be addressed is for the National Party to be held out of office for long enough. That is, so that the infrastructure can be sufficiently progressed so that work can't be halted when an election next changes the government.*

### Section three: What investment is already planned

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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

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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?

*The present government does not recognise dry years as an infrastructure problem, terminating the dry year work of NZ Battery after the 2023 election.*

## Changing the approach — Capability to plan and build

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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

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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

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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

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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?**

*It is well recognised that we suffer from an absence of a bipartisan infrastructure pipeline. What is stopping us, as far as dry year infrastructure is concerned, is that the present government refuses to recognise dry years as an infrastructure issue.*

**Page 4 - Taking care of what we've got**

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

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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

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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

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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?**

*We need to carefully overview multiple scenarios of disruption and look for solutions that give best value for low probability / high impact events.*

*For example, deepening the Lake Taupo outlet to the Waikato River would be low cost and enable "ultra-contingency" water release to the Waikato hydro power stations in the unlikely (but dire) event of a major earthquake disruption to the HVDC coinciding with a North Island dry year where Lake Taupo is already at its normal operating minimum.*

*As another example, major infrastructure builds should always look to add-ons giving additional value for protecting existing infrastructure. For example, a recent report identified the Dunedin city water supply being at risk from a future extended drought impacting its limited inland water supply catchments. If the Lake Onslow scheme went ahead, it could future-proof Dunedin's water supply via a narrow connecting tunnel giving gravity flow water from the expanded lake.*

## Decarbonisation: A different kind of challenge

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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?

*The NZ Battery team defined the infrastructure options for power generation through dry years without carbon emissions. What is stopping us is that the present government prevented further work on these options.*

## Changing the approach — Getting the settings right

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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

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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?**

*A bipartisan infrastructure pipeline would make the biggest difference. However, that is an impossibility as far as the key issue of dry year infrastructure is concerned.*

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

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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**

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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*

## **Additional information to support our development of the Plan**

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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

*Consider how a true National Infrastructure Plan can be set up that will survive changes in government.*

## 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

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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@tewaihang.govt.nz](mailto:inform@tewaihang.govt.nz).

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