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The New Zealand Infrastructure Commission/Te Waihanga By online submission

Transpower's submission on the draft National Infrastructure Plan

Transpower welcomes the opportunity to respond to the Infrastructure Commission's Draft National Infrastructure Plan consultation. We appreciate the work the Infrastructure Commission has completed to build on the 2022 New Zealand Infrastructure Strategy and its collaborative and evidence-based approach to inform the draft plan. We agree the plan is an important document that provides initial advice on an approach for investment in infrastructure to meet New Zealand's long-term needs.

We have chosen to focus our submission on matters relating to energy infrastructure. This is obviously the sector we know well in our role as both National Grid Owner and System Operator. We have chosen to focus our submission on the points that, in our view, are the most important to enable the electrification and future economic growth of Aotearoa New Zealand.

Our main feedback is:

- Electrification will lead to significantly lower overall energy costs for consumers over time
- The energy sector needs to scale its workforce to deliver on future work programmes
- Network investment will need to be integrated and timely (anticipatory) to support, and avoid being a barrier to, electrification
- Spatial planning provides an opportunity for Transpower, but it must be flexible and adaptable
- Property rights and land access processes need to change to enable electrification
- New Zealand requires an enabling regulatory framework for planning and consenting of transmission infrastructure
- A cohesive and enduring bi-partisan energy strategy is needed to provide certainty for investors

Included in our main feedback are proposed actions for the Infrastructure Commission to consider including in its final plan. Our full response to relevant sections and recommendations is included as an appendix.

Electrification will lead to significantly lower overall energy costs for consumers over time

Transpower is committed to enabling New Zealand's energy transition, to drive economic growth and decarbonisation of the economy. This is highlighted in our *Whakamana I Te Mauri Hiko*¹ and *Te Kanapu* documents,² which outline the role of electricity to support a resilient, thriving and productive Aotearoa.

¹ Whakamana | Te Mauri Hiko | Transpower

² <u>Te Kanapu | Transpower</u>

Transpower acknowledges the electricity sector will require significant growth in investment to support electrification. Our analysis shows that by 2050, New Zealand is expected to use about 70% more electricity. This is driven by a switch away from fossil fuels to more efficient technologies (e.g., uptake of electric vehicles rather than petrol ICE vehicles, electric heat pumps rather than gas used for residential heating and cooking) and results in an overall reduction in energy costs for the average household bill. We suggest the final plan reflects the cost savings from lower household expenses on goods such as petrol, in addition to the rising charges for electricity to fund investment.

The energy sector needs to scale its workforce to deliver on future work programmes

Transpower agrees with the recommendation that infrastructure investment plans, asset management plans and the Infrastructure Commission's independent view of long-term needs can provide a multi-sector view of workforce development planning and policy.

We suggest two operational and policy changes for inclusion in the final plan. The first is continued investment to maintain the National Infrastructure Pipeline dataset to ensure this evidence base is complete and timely, and how we can ensure this fully captures linear infrastructure such as electricity distribution business activity as well as information and communications technology where future workforce skills will also be required. It is not clear if the pipeline captures all of this. The second, is ongoing engagement and input from relevant infrastructure asset and services participants in each sector, for example, Transpower in the energy infrastructure sector. This will provide the Infrastructure Commission access to bottom-up expertise and the option to leverage sector-specific initiatives such as the Electricity Engineers Associations 2025 Re-energise Aotearoa workforce capability project.

In the short term, New Zealand needs more adaptable immigration settings to allow infrastructure providers access to specific skilled labour which is not available in the volumes required in New Zealand, and for which it can take years to develop. To address this skills gap longer-term, improving vocational training is essential to closing the skills gap in high value, low volume roles.

Network investment will need to be integrated and timely (anticipatory) to support, and avoid being a barrier to, electrification

Transpower welcomes the findings by the Infrastructure Commission that practices for electricity networks are generally well aligned with network pricing goals.

Transpower recognises that policy settings and funding models can be useful to incentivise investment in new electricity generation and load to support electrification. We agree the energy transition may require transmission network investment ahead of demand to facilitate electrification. While we hold the view our investments are right sized, this approach differs as it reflects taking a 'least regrets' pathway to enable lower cost outcomes for consumers. We will further explore this opportunity in our Te Kanapu workstream.

Alternative investment models for transmission build and enabling connections have been adopted internationally (e.g. Renewable Energy Zones), but any models introduced in New Zealand must be fit for purpose. This may be particularly useful in areas of high growth for electricity generation and load, that require an earlier and larger expansion of network infrastructure to guide investment decisions. An example of a model that ensured a coordinated roll-out minimising anticipatory costs to consumers is the New Zealand Crown Fibre ultra-fast broadband rollout. This model could be adapted for electricity network infrastructure investment. Transpower believes this approach could apply in the electricity sector where investment could enhance network capacity and resilience, prior to demand materialising.

Transpower is responsible for implementing the Transmission Pricing Methodology (TPM) which is the method used to calculate how Transpower recovers the annual cost of running the national transmission grid from transmission customers. We have made several comments in our full response in the appendix on the pricing goals outlined in the draft plan. This includes comments that: users' willingness to pay can be an issue for investing in electricity transmission infrastructure projects; that the TPM does not provide a peak pricing signal; and the complexity of the TPM to enable investment decisions.

Spatial planning provides an opportunity for Transpower, but it must be flexible and adaptable

Transpower is actively consulting with the Ministry for the Environment about spatial plans (and how they could work for the National Grid) in relation to Phase 3 of the Resource Management reform programme. Transpower recognises that spatial plans provide an opportunity to geographically identify strategic Transpower sites, routes and projects over the short, medium and long term. Future development strategies and potential spatial plans developed under the Phase 2 national direction documents – and subsequent Phase 3 legislation - have relevance as there is an increasing need to plan new connections to new renewable generation and to increase the capacity of the grid to accommodate new connections and increasing demand for electricity. There's also an increasing need to protect existing assets, and spatial planning could play an important role in this regard (for example, in relation to existing substation sites which will need to be expanded in the future).

It is critical that spatial planning rules have a flexible process by which projects can be included in (or removed from) spatial plans 'out of cycle'. For spatial planning to truly serve the National Grid's critical needs, it must fundamentally embody flexibility, allowing for regular and efficient updates. Without this adaptability, spatial plans risk becoming quickly outdated and an impediment (rather than an enabler) of New Zealand's energy future. We believe that the final plan could include a review process for inclusion of new projects. This review would be directed by a small and targeted panel of independent experts and central government agencies with expertise. The panel would consider new or existing projects in the spatial plan on a case-by-case basis.

Transpower agrees that the final plan could be a national level document that flows into the spatial plans under the Planning Act. But, to do this, the plan would need to provide more detail about individual projects or groups of projects, the need to maximise the use of existing infrastructure, and the need to carry out works on existing infrastructure due to our aged assets. In this way, spatial plans could enable buffer zones around transmission infrastructure.

Property rights and land access processes need to change to enable electrification

Transpower notes the recommendation in the draft plan for land-use policies to enable new and existing infrastructure to be used by as many people as possible. For example, better coordination between infrastructure provision and land-use planning such as road corridors, water, energy and telecommunications.

We suggest the final plan expand the scope from "land-use regulations" to "land use and land access regulations". Effective infrastructure regulatory settings need to consider the land access and property rights needed to build new and upgrade existing infrastructure. This appears to be a gap in the draft plan.

New Zealand requires an enabling regulatory framework for planning and consenting of transmission infrastructure

Transpower is aware of the work underway to include a new national policy statement on infrastructure through Phase 2 of the Resource Management reforms. Transpower has made submissions on ten of the Phase 2 National Direction documents including the NPS Infrastructure. It is critical that new legislation and supporting regulations is more favourable for planning and consenting of transmission infrastructure.

Transpower supports a regulatory framework that can enable electrification and investment in renewable generation at the pace and scale required to meet our net-zero target and enable a thriving and prosperous economy. Transmission is essential both to transmit new renewable generation, which needs to be spread across New Zealand for diversity, and to respond to the increased demand for electricity as consumers electrify. However, the current National Policy Statements for Electricity Transmission (NPS-ET) and Renewable Electricity Generation (NPS-REG) are no longer fit for purpose. Without a truly enabling framework in the Phase 2 National Direction and even more so in the new Phase 3 legislation, we won't just incur delays and costs; New Zealand will fundamentally compromise its ability to achieve net-zero and the economic opportunity that electrification enables, and a resilient future for all New Zealanders. An integrated approach is required across the multiple national direction instruments given the national and linear nature of our infrastructure which traverses, or may need to traverse, every type of environment and its associated values.

Transpower believes that the resource management reform should provide a more permissive regime for works on existing assets, and more enabling policies for new grid development in all areas.

Transpower agrees there should be an NPS-Infrastructure (NPS-I), in addition to a strengthened NPS-ET/NPS-EN and NPS-REG. We support the statement that the NPS-I does not apply to electricity transmission (because it is covered by the NPS-EN). However, Transpower believes that infrastructure associated with the National Grid, such as bridging, telecommunications and other associated and ancillary assets are more appropriately managed under the NPS-EN.

A cohesive and enduring bi-partisan energy strategy is needed to provide certainty for investors

We support the recommendation in the draft plan that recognises the need for a stable policy environment for electricity investment.

We believe a cohesive and enduring bi-partisan government energy strategy is needed to provide certainty for investors and industry participants, and to ensure the energy transition is delivered. We do not agree that the electricity sector has a consistent policy environment. Recently several energy related policies have been discontinued or reversed, and new policies have been introduced.

Both near term and long-term security of energy supply remains a critical challenge for New Zealand. A bi-partisan energy strategy can assist with consistency on key targets and goals, to ensure greater policy certainty which aligns with these targets and goals. In addition, a number of flagship workstreams are underway that add the potential for further policy uncertainty, which includes a Government commissioned review of electricity market performance.

We would welcome the opportunity to further support the Infrastructure Commission and relevant agencies on relevant operational changes, actions or policies that are practical and can be implemented in shaping the final plan and advice to Government.

You may publish any part of this submission.

If you would like to discuss our submission in more detail, please contact Tyler Byers tyler.byers@transpower.co.nz in the first instance.

Yours sincerely,

David Knight

Executive General Manager Strategy, Regulation & Governance

Appendix: Responses to the draft National Infrastructure Plan

This table lists all of Transpower's feedback to relevant sections and recommendations.

Draft National Infrastructure Plan	Transpower comment
Transpower's investments are increasing to meet electrification demands and ensure a reliable and resilient supply	
Section 3.1 Context: We're building on what we've already got Page 36 – Table 2. Assessment of the	 The draft plan compares New Zealand's electricity infrastructure networks against our peer countries, across four key measures. For the measure of quality, the draft plan states that New Zealand has a relatively high frequency and length of electricity outages, which are counterbalanced by quality measures indicating low emissions in electricity.
measures for electricity - "Quality".	 We understand that the methodology used for assessing quality included the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). This includes both planned and unplanned outages using World Bank data and an international comparison to other countries. We would like to point out that a variety of local factors can impact on SAIDI, and it is unclear if the data is normalised for this. For example, the environment (e.g. weather events) can have a significant impact on the duration and severity of power outages. Storms, high winds, lightning, and flooding can damage power lines, poles, and transformers. According to Commerce Commission data, over 90% of these outages originated on the local distribution network.³ In New Zealand, we have an N-1 transmission is a power system reliability standard.⁴ However, this standard can vary between countries.
Electrification will lead to significantly lower overall energy costs for consumers over time	
Section 3.3 The investment mix will change	 Transpower acknowledges the electricity sector will require significant growth in investment to support electrification. Our analysis shows that by 2050, New Zealand is expected to use about 70% more electricity. To enable this transition and help the country decarbonise, the sector must deliver on the enabling infrastructure, electricity network investment and new renewable electricity generation

³ Commerce Commission, <u>Trends in local lines company performance dashboard</u>

⁴ N-1 transmission is a standard used in power systems to ensure reliability. It means that the power grid should be able to handle the failure of any single component, such as a transmission line, transformer, or generator, without causing a widespread power outage.

Page 45 – Figure 15. Investment and household energy cost assumptions (electricity as a rising share of investment).

required. Some of this new generation will connect to the transmission network while others will connect to the local electricity distribution network.

- Transpower expects the costs of this investment will be offset by increased benefits of lower household expenses on goods such as petrol, which are not currently modelled in Figure 15 on page 45 of the draft plan. A typical household's energy costs will reduce over time through efficiency and fuel switching away from fossil fuel (e.g. petrol in ICE vehicles or gas used for heating and cooking) to electricity (EV plug ins or heat pumps). This has the net effect of reducing the overall household bill. We suggest the analysis and chart reflects the cost savings from lower household expenses on goods such as petrol, in addition to the rising charges for electricity to fund investment.
- For example, our *Whakamana I Te Mauri Hiko* analysis showed that electrification of household transport and efficiency gains would provide a 27% reduction in total household energy costs in 2035, saving approximately NZD \$1,600 per year. Similar analysis from the Energy Efficiency and Conservation Authority found that an average fully electrified home today will save over \$1000 a year compared to a gas and petrol home when all costs are annualised.
- Consumers are increasingly adopting consumer energy resources (CER) such as roof top solar and batteries, and electric vehicles. As new technology and customer needs change, our role is to enable and integrate these changes while maintaining a high quality of service. The role that CER may play will become increasingly common and affordable in the future, and they will play a critical role in enabling smarter and more efficient use of the grid. We regularly seek to find non-transmission solutions that are viable alternatives to network solutions. When Transpower investigates options to resolve existing or future transmission constraints, we consider a range of transmission investments, and also whether we might procure third party services as transmission alternatives/non-transmission solutions. Transpower believes that the way electricity is transmitted and distributed will change, be it through the adoption of new technologies, the expansion of consumer energy resources, increasing decentralisation of generation, or through greater use of non-transmission alternatives. There is a role for a 'smart system' to maximise the use of existing infrastructure to minimise future infrastructure investment. We are exploring the role of CER through our *Te Kanapu* initiative.

⁵ Transpower 2020, Figure 12 p 38, Whakamana I Te Mauri Hiko

⁶ The Energy Efficiency and Conservation Authority 2024, <u>Electric Homes Technical Report</u>

The energy sector needs to scale its workforce to deliver on future work programmes

Section 3.4 Infrastructure workforce must grow

Recommendation 1 – Workforce development: Workforce development planning and policy is informed by infrastructure investment and asset management plans and the New Zealand Infrastructure Commission's independent view of long-term needs.

- Competition to attract workforce is growing as New Zealand is not the only country that will need to scale up. We will need to draw from all sectors of our community to meet the challenge there has never been a stronger case to prioritise inclusion and diversity. The material ramp up in investment means we have forecast the need for an additional ~200 new staff and 600 additional staff across our Service Providers by 2030. Our immediate challenge is developing our workforce to deliver the investments required for electrification.
- Transpower agrees with the recommendation that infrastructure investment plans, asset management plans and the Infrastructure Commission's independent view of long-term needs can provide a multi-sector view of workforce development planning and policy. We suggest two operational and policy changes for inclusion in the final plan. The first is a continued investment into maintain the National Infrastructure Pipeline dataset to ensure this evidence base is complete and timely, and how we can ensure this fully captures linear infrastructure such as electricity distribution business activity as well as information communication technology where future workforce skills will also be required. It is not clear if the pipeline captures this. The second, is ongoing engagement and input from relevant infrastructure asset and services participants in each sector, for example, Transpower in the energy infrastructure sector. This will provide Infrastructure Commission access to bottom-up expertise and the option to leverage sector-specific initiatives such as the Electricity Engineers Associations 2025 Re-energise Aotearoa workforce capability project.
- Transpower agrees that early signalling of projects and maintenance work supports effective lead in times
 for training development and implementation of new training or upscaling of current training.
 Transpower agrees that coordination between different parts of the infrastructure sector is important
 and notes the importance of coordination with vocational tertiary education and immigration settings to
 support the pipelines of trained workers.
- New Zealand can't train and develop the specific skills we need for the future we need to rely on
 immigration to supplement the workforce in areas we are unable to train and scale up with pace. New
 Zealand needs more adaptable immigration settings to allow infrastructure providers access to specific
 skilled labour. For example, Transpower believes line mechanics and maintenance technicians should be
 included in the immigration green list.

- Vocational training also plays a key part of closing the skills gap in high value, low volume roles. It can
 assist in delivering a trained and competent workforce for our sector and our service providers. STEM
 capability is key for our workforce and will continue to be. Increasing the pipeline of qualified personnel
 by promoting STEM in schools will ensure that our young people remain engaged and inspired to
 undertake STEM careers.
- Transpower agrees that to meet workforce demands a diverse and inclusive approach needs to be driven to attract and retain Māori and female workers.

Network investment will need to be integrated and timely (anticipatory) to support, and avoid being a barrier to, electrification

Section 4.3 Use fit-for-purpose pricing and funding tools

Recommendation 6 – Funding pathways: Funding tools are matched to asset type (user-pays for network infrastructure, commercial self-funding for economic-development assets, and tax funding for social infrastructure) to keep the overall capital envelope affordable. User-pricing principles are applied across all network sectors so user charges fully fund investment, guide efficient use of networks and distribute the benefits of network provision.

- Transpower acknowledges the study the Infrastructure Commission completed in 2024 of infrastructure pricing. This study found that practices for electricity and telecommunications networks are generally well aligned with network pricing goals.
- Transpower is responsible for implementing the Transmission Pricing Methodology (TPM). The TPM is the
 method used to calculate how Transpower recovers the annual cost of running the national transmission
 grid from transmission customers. Under the TPM, transmission charges are allocated to Transpower's
 customers via a benefit-based rather than user pays approach.

Comments on pricing goals outlined in the draft plan:

- Goal 1: Pricing should guide efficient investment in networks. Users' willingness to pay can be an issue for investing in electricity transmission infrastructure projects. Some projects need to proceed, even if users do not want to pay for them. For example, investments to meet grid reliability standards. However, different costs are borne by different regions. Users' willingness to pay differs and they may perceive project benefits as not being proportionate to project costs.
- Goal 2: Pricing should guide efficient use of networks. Peak use of the network is increasing at a faster rate than overall use. As the TPM does not provide a peak pricing signal, it is unclear whether it contributes to incentivising efficient use of the grid. In addition, there is a challenge with the complexity of the TPM and communicating this in a simple way to enable investment decisions. This complexity exists in the context of a rapid expansion of renewable electricity generation and electrification required to meet our decarbonisation targets.

• Goal 3: Pricing should help share the benefits of networks. For regulated assets including electricity transmission infrastructure, we disagree that all of the gains from efficiency improvements should be passed on to users. The benefits would be shared between customers and Transpower through lower transmission prices – otherwise Transpower is not incentivised to make efficiency improvements.

Comments on funding tools in the draft plan:

- Transpower recognises that policy settings and funding models can be useful to incentivise investment in new electricity generation and load to support electrification. We agree the energy transition may require network investment ahead of demand to facilitate electrification, rather than right sizing the approach. While we hold the view our investments are right sized, this approach differs as it reflects a least regrets pathway to enable lower cost outcomes for consumers. New transmission infrastructure takes a long time to build (between 7 and 10 years); regulatory approvals and permitting processes can be time-consuming and securing social licence with communities can be challenging. Currently, our regulatory framework is reactive, limiting our ability to invest in the national grid ahead of need. Grid capacity needs to increase to connect new renewable generation and meet increasing demand for electricity and deliver lower cost generation and outcomes. Therefore, Transpower believes there may be a case for enabling anticipatory grid development ahead of demand to keep up with the electrification need and to facilitate a lower cost transition overall. We will continue to work with regulators on the concept of anticipatory investment for electricity transmission infrastructure through our *Te Kanapu* work programme.
- Alternative investment models for transmission build and enabling connections have been adopted internationally (for example, in Australia and Texas). These models may support economic development through incentivising the market, as opposed to traditional pricing and funding approaches for network infrastructure. For example, one model is Renewable Energy Zones (REZ). While it is beneficial to leverage the learnings and insights from other overseas examples, any REZ models adopted must be fit for purpose for New Zealand circumstances. This may be particularly useful in identified areas of high growth for electricity generation and load, that require an earlier and larger expansion of network infrastructure to guide investment decisions. A REZ model would coordinate and streamline access to the transmission grid and provide a more efficient grid connection by aggregating demand and generation. A

⁷ Transpower 2025, <u>Renewable Energy Zones</u>

REZ therefore avoids the co-ordination issues that can lead to a 'chicken and egg' situation where network providers won't commit to building new infrastructure until there are firm commitments from generators, and generators won't invest unless they know there is network capacity. To enable this, a party needs to take on the intermediary risk required to cover the initial upfront cost of the transmission infrastructure, as currently under the TPM the full cost would be borne by the initial direct beneficiaries. Decisions around pricing approaches will need to be made, that consider investment risk and affordability. An example of a model that ensured a coordinated roll-out minimising anticipatory costs to consumers is the New Zealand Crown Fibre ultra-fast broadband rollout. This is as a model which could be adapted for electricity network infrastructure investment.⁸ New Zealand's UFB rollout was supported by the Crown finance and debt, which was released on completion of the work and repayments by fibre companies were repaid as service demand materialised. Some of the same logic applies to the electricity sector where a third party financed investment could enhance network capacity and resilience, prior to demand materialising.

Spatial planning provides an opportunity for Transpower, but it must be flexible and adaptable

Section 4.4 Provide cost-effective coordination tools

Recommendation 7 - Spatial planning: Under the new resource management system, spatial planning informs and is informed by infrastructure investment and asset management planning and the New Zealand Infrastructure Commission's independent view of long-term needs.

- Transpower is actively engaging with the Ministry for the Environment about spatial plans (and how they could work for the National Grid) in relation to Phase 3 of the Resource Management reform programme.
- Transpower recognises that spatial plans provide an opportunity to geographically identify strategic Transpower sites, routes and projects over the short, medium and long term. Future development strategies and potential spatial plans developed under the Phase 2 national direction documents (including the NPS-Infrastructure) and subsequent Phase 3 legislation have relevance as there is an increasing need to plan new connections to new renewable generation and to increase the capacity of the grid to accommodate new connections and increasing demand for electricity. There's also an increasing need to protect existing assets, and spatial planning could play an important role in this regard (for example, in relation to existing substation sites which will need to be expanded in the future).
- It is critical that spatial planning rules have a flexible process by which projects can be included in (or removed from) spatial plans 'out of cycle'. The electricity sector is market driven, and reactive. Final decisions on generation and related transmission activities can develop over relatively short periods and there is not currently any ability for Transpower to identify transmission projects ahead of need. For

⁸ KPMG 2024, Page 10, <u>Financing Investment in New Zealand's Electricity Networks</u>

spatial planning to truly serve the National Grid's critical needs, it must fundamentally embody flexibility, allowing for regular and efficient updates. Without this adaptability, spatial plans risk becoming quickly outdated and an impediment (rather than an enabler) of New Zealand's energy future.

- Transpower believes there should be a 'cycle time' of 5 years with annual review for inclusion of new projects. This review would be directed by a small and targeted panel of independent experts and central government agencies with relevant expertise. The panel would consider new or existing projects in the spatial plan on a case-by-case basis.
- Transpower agrees that the final plan could be a national level document that flows into the spatial plans under the Planning Act. But, to do this, the final plan would need to provide more detail about individual projects or groups of projects, the need to maximise the use of existing infrastructure, and the need to carry out works on existing infrastructure due to our aged assets. In this way, spatial plans could enable buffer zones around transmission infrastructure.

Property rights and land access processes need to change to enable electrification

Section 4.4 Provide cost-effective coordination tools

Recommendation 8 - Maximizing use: Land-use policies enable new and existing infrastructure to be used by as many people as possible.

- Transpower notes the recommendation in the draft plan for land-use policies to enable new and existing infrastructure to be used by as many people as possible. For example, better coordination between infrastructure provision and land-use planning such as road corridors, water, energy and telco.
- We suggest the section heading on page 74 "Land-use regulations maximise the benefits from new and existing infrastructure" could be broadened from "land use" to "land use <u>and land access regulations</u>". Effective infrastructure regulatory settings need to consider the land access and property rights needed to build new and upgrade existing infrastructure. This appears to be a gap in the draft plan. Transpower is currently requesting changes to land access regulatory settings in the Public Works Act and Electricity Act, given the challenges we face, and the associated timeframe to secure land access for our electrification projects. 9 Other infrastructure providers such as NZTA and KiwiRail face similar challenges.
- Transpower believes that infrastructure should maximise use of existing assets first. There are practical issues with co-location that are specific to certain infrastructure types. Co-location can be encouraged but cannot be at the expense of the primary infrastructure. The Telecommunications Act allows others to

⁹ Transpower June 2025, submission to Transport and Infrastructure Select Committee on the Public Works Act (Critical Infrastructure) Amendment Bill

install assets on electricity lines – but we do not have the property rights to permit this activity on our assets and the assets need to be engineered for this. For Transpower often our infrastructure assets colocate with existing transmission assets. For example, new transmission lines are often easier when placed parallel to existing ones, to manage effects better on landscape and the environment.

New Zealand requires an enabling regulatory framework for planning and consenting of transmission infrastructure

Section 4.5 Ensure a predictable policy environment

Recommendation 9 - An enabling environment: The resource management system enables infrastructure with national and regional benefits, while managing interactions with surrounding land uses and negative impacts on the natural environment.

- Transpower is aware of the work underway to include a new national policy statement on infrastructure through Phase 2 of the Resource Management reforms. Transpower has made submissions on 10 of the Phase 2 National Direction documents. 10 It is critical that new legislation and supporting regulations is more favourable for planning and consenting of transmission infrastructure.
- Transpower supports a regulatory framework that can enable electrification and investment in renewable generation at the pace and scale required to meet our net-zero target and enable a thriving and prosperous economy. Transmission is essential both to transmit new renewable generation, which needs to be spread across New Zealand for diversity, and to respond to the increased demand for electricity as consumers electrify. However, the current National Policy Statements for Electricity Transmission (NPS-ET) and Renewable Electricity Generation (NPS-REG) are no longer fit for purpose. Without a truly enabling framework in the Phase 2 National Direction and even more so in the new Phase 3 legislation, we won't just incur delays and costs; New Zealand will fundamentally compromise its ability to achieve net-zero and the economic opportunity that electrification enables, and a resilient future for all New Zealanders. An integrated approach is required across the multiple national direction instruments given the national and linear nature of our infrastructure, which traverses, or may need to traverse every type of environment and its associated values.
- However, there are tensions between RMA (Section 6) matters and the national direction. Transpower is seeking reconciliation between enabling provisions under the national policy statements (e.g. National Policy Statements for Electricity Networks (NPS-EN) and Renewable Electricity Generation (NPS-REG)) and the national direction (Section 6 RMA) and how this perpetuates the conflict between infrastructure development and natural environment values. Put simply, Transpower cannot be left to the uncertainty of reconciliation from district plans or consents. Changes in both Phase 2 and Phase 3 of the resource

¹⁰ Transpower July 2025, <u>Amendments to the National Policy Statement on Electricity Transmission</u>, <u>Amendments to the National Policy Statement for Renewable Electricity Generation</u>, <u>New National Policy Statement for Infrastructure</u>, <u>Amendments to the National Environmental Standards for Electricity Transmission Activities</u>

management reform will need to ensure a pathway for enabling development of the transmission grid is provided through each Act. This will provide greater certainty and clarity that gives direction to decision makers.

- Transpower believes that the resource management reform should provide a more permissive regime for works on existing assets, and more enabling policies for new grid development in all areas.
- Transpower agrees there should be an NPS-Infrastructure (NPS-I), in addition to a strengthened NPS-ET/NPS-EN and NPS-REG. We support the statement that the NPS-I does not apply to electricity transmission (because it is covered by the NPS-EN). However, Transpower believes that infrastructure associated the National Grid, such as bridging, telecommunications and other associated and ancillary assets are more appropriately managed under the NPS-EN.

A cohesive and enduring bi-partisan energy strategy is needed to provide certainty for investors

Section 4.5 Ensure a predictable policy environment

Recommendation 10 - Policy stability: Energy investors have predictable policy and consenting settings that support affordability, security of supply, and the decarbonisation of the economy.

- We support the recommendation in the draft plan that recognises the need for a stable policy environment for electricity investment. This will require investment across the energy sector, including generation, transmission grid and system operations, distribution, industry, business and consumers.
- There are also a number of important factors that affect electricity investment outside of policy stability. This requires a careful balancing of the energy trilemma to ensure we maintain a sustainable, affordable and secure energy supply. However, while the pace and range of pathways to achieve a more electrified economy remains uncertain, our *Whakamana I Te Mauri Hiko* scenarios reflect a growing consensus on the key role of electricity in the future energy system. Our base case Accelerated Electrification scenario expects electricity demand to increase 68% by 2050. For comparison we have mapped our scenarios from the work carried out by the Boston Consulting Group, the Ministry for Business Innovation and Employment and the Climate Change Commission. Our modelling of electricity demand is broadly consistent with these forecasts by 2050, reflecting a growing consensus on the key role electricity will play in the future energy system.
- We believe a cohesive and enduring bi-partisan government energy strategy is needed to provide
 certainty for investors and industry participants, and to ensure the energy transition is delivered.. We do
 not agree that the electricity sector has a consistent policy environment. Recently, several energy related
 policies have been discontinued or reversed and new policies have been introduced. For example, the

discontinued Government Investment in Decarbonising Industry (GIDI) fund and the Clean Car Discount (CCD). Recent new policies include incentivises for renewable energy such as regional, residential and farm solar uptake, developing an offshore renewable energy regime and accelerating EV charging rollout. Previous to this, the uncertainty of the NZ Battery Project discouraged private sector investment in alternative dry year solutions. Both near term and long-term security of energy supply remains a critical challenge for New Zealand. A bi-partisan energy strategy can assist with consistency on key targets and goals, to ensure greater policy certainty which aligns with these targets and goals. In addition, a number of flagship workstreams are underway which adds the potential for further policy uncertainty. This includes a Government commissioned review of electricity market performance.¹¹

- We have highlighted in our response to Recommendations 7, 8 and 9 the importance of land access, property rights and consenting regimes for new electricity infrastructure to enable investment.
 Transpower notes that both existing works and maintenance on existing electricity transmission infrastructure as well as investment (e.g. replacement of transmission lines or upgrades to connect a repowered wind farm with larger turbines) also requires to be enabled with policy certainty.
- Transpower is actively engaged with developers who seek to connect new generation and load to the transmission network. The process by which Transpower manages connections and other customer investment projects follows the customer journey set out on Transpower's website. Connecting customers to the grid as quickly and efficiently as possible is a critical part of maintaining reliability, security of supply and enabling the market to deliver affordable electricity, enabling economic growth. The number of customer enquiries we receive for connections to the grid, both generation and load, continues to be high. This highlights the importance of the work we are undertaking to accelerate the processing of customer connections. Accelerating our process to set milestones for connection to the grid will ensure the framework remains efficient and fit for purpose directing resources to well-developed projects, preferring these over projects that have stalled or are demonstrably less well-developed. It will provide certainty to investors supporting New Zealand's position as an attractive place to invest and supports the Governments desire to increase the amount of new renewable generation.

¹¹ Ministry of Business Innovation and Employment, Review of electricity market performance | Ministry of Business, Innovation & Employment