



14 June 2026

Transpower NZ Ltd  
Wellington 6011

Via email: [Grid.Investments@transpower.co.nz](mailto:Grid.Investments@transpower.co.nz)

## **Subject: Tararua Anticipatory Transmission Investment Consultation**

Thank you for the opportunity to comment on the Tararua Anticipatory Transmission Investment major capex proposal.

### **Summary**

We welcome any initiatives that accelerate efficient grid investment. In general, we agree that grid investment needs to be sped-up, else consumers will bear the costs of sub-optimal generation investments and we will also see the delay of grid connections for new load that underpins our economy.

There are a large number of potential anticipatory investments, including in the Southland region, Northland region, and connecting the northern end to Wairakei, alongside the proposed Tararua investment.

We consider that there should be an objective assessment of the full set of anticipatory investment options to ensure the right projects are progressed. This should include an assessment of the impact on consumer prices, the potential supply and demand that could be unlocked. Crucially anticipatory transmission investment should enable high-value generation (i.e generation with diversity), and down-weight highly correlated Lower North Island wind and solar. At this stage we are unsure if the Tararua investment would be the highest priority if such criteria were applied.

There are other issues that need to be resolved to allow anticipatory investments to be successfully progressed. Proposed anticipatory investments have failed in the past (cf Northland renewable energy zone) because of the Transmission Pricing Methodology (TPM). We expect this will keep happening until the issues with the TPM are fixed..

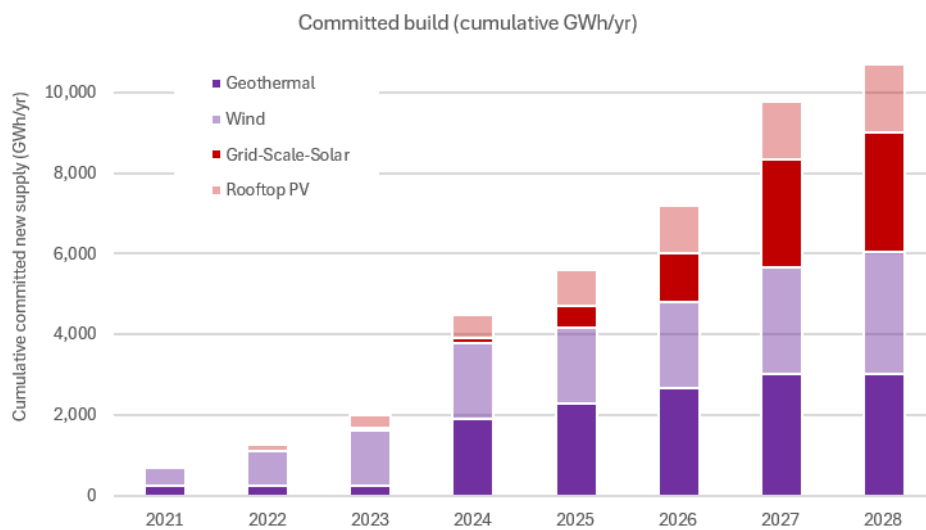
We ask for four things:

- o Prioritise anticipatory investment on regions that deliver diverse renewable generation.
- o Improve the transmission planning process by gathering and using information about potential generation (and demand) projects that are not currently being progressed due to a lack of transmission (developers such as ourselves can help with this).
- o Ensure that the anticipatory transmission investment techno-economic modelling fully captures the value of generation diversity (i.e. make sure the cost of firming renewables is robustly reflected, and that the datasets used highlight the diversity, or lack thereof, of various renewable resources in specific regions).

- o Make material changes to the TPM such that anticipatory investments (especially those to enable generation) are not borne predominantly by load in the region that hosts them. All consumers benefit from enabling lower-cost generation, therefore all load should pay for anticipatory investments (i.e. they belong in the residual charge, until they can be apportioned specifically to beneficiaries through an improved allocation mechanism).

## The changing electricity market context

The New Zealand electricity market has under-gone a significant transformation in the last few years. About 6 TWh/yr of new renewable generation is being added<sup>1</sup> in the five years from 2024 and 2028 (inclusive). This is shown in the chart below



A direct consequence of this generation investment is that New Zealand will be largely renewable by about 2028 (pending load growth). There will be a small annual volume of fossil fuelled generation estimated at 2%-5%, but this fossil fuel generation is not directly displaceable by additional wind and solar generation.

This is a very different electricity market from that which we have seen before. It also requires a different approach to transmission investment.

Importantly, there's a very large volume of potential new renewable generation that is transmission constrained across most regions of NZ (not just in the Tararua region).

As noted later in this submission, the transmission planning process does not appear to fully account for generation resources and their costs in each region. A direct consequence is that the least-cost electricity supply is unlikely to be achieved under the status quo grid planning processes.

<sup>1</sup> This only includes committed grid-scale generation (i.e. that which has reached a financial investment decision and will be delivered in this time frame, and a conservative estimate of rooftop solar PV. This is an under-estimate of new generation as some smaller projects will have been missed, and additional new projects will be committed and delivered in this period.

## Picking the right anticipatory investments

Anticipatory investments are an essential part of the electrification of the New Zealand economy. If we are to bring on more generation and demand, we need the grid to reach into new places in a cost-efficient way.

However, anticipatory investments are fundamentally different to the type of investments normally proposed by Transpower and considered by the Commission. Because they are anticipatory there is no currently identifiable beneficiary, so the impacts must be assessed against the system as a whole. We consider that this justifies some unique assessment criteria in addition to the traditional tests.

We propose two key criteria that should be assessed for proposed anticipatory investments:

- What is the impact on the delivered electricity prices
- Will the investment unlock incremental generation or demand that does not have an alternative viable path to market.

A key part of a largely renewable electricity system is maximising diversity of must-run generation resources, especially wind generation. This is because must-run renewable generation requires firming, and firming is a scarce resource and therefore expensive (whether from demand response, fossil generation, batteries or hydro).

We consider that assessment of anticipatory investments must take the impact of diversity, and the resulting impact on delivered electricity costs into account. Intermittent generation that is highly correlated to existing wind farms or solar farms, is of relatively low value to NZ Inc. For example adding additional wind that generates at the same time as existing wind resources in the region may have little impact on wholesale prices (which are already very low when correlated large wind resources are operating). We also note that solar is able to be added to many regions where transmission investment is not required, so anticipatory investments may provide little value to this part of the market.

Least-cost electricity is better enabled by increasing wind generation in regions that add material diversity of generation. That means the wind generation can offset higher cost sources of generation, and ensure a lower wholesale price for New Zealand homes and businesses.

We also consider that anticipatory investment should focus on unlocking incremental new capacity. This may mean looking deeper than announced projects. Developers typically only announce projects that have a viable grid connection solution. Examples of this are our competitor's projects such as the Mt Munro wind farm and the Puketoi Wind farm. These projects have (or at least had) viable grid connection solutions when consented. Similarly, solar generation can be added to the grid at many locations without major grid upgrades.

Against these criteria we are unsure if the Tararua region is the best choice as an anticipatory investment. It appears to enable wind resources that are highly correlated to existing generation, and the proposed new generation it enables may already have a viable grid connection. We consider that the benefits of this proposal should be assessed against other potential anticipatory investments, for example in the Upper North Island (UNI) Lower South Island (LSI) and connecting the northern end to Wairakei.

## The TPM is a barrier to delivering anticipatory investments

The TPM is a barrier to anticipatory transmission investment, regardless of the region under consideration. Under the TPM the costs of the upgrade fall predominantly on local load customers in the region which is untenable (even if it is only for the first five years or so of the investment).

Local load customers should not have to bear the majority of the Tararua (or any anticipatory) transmission investment costs when all load customers benefit. In our view there is no point in progressing the Tararua (or any other) anticipatory investment project until the TPM is materially changed to reduce the perverse outcomes that arise.

## The overall transmission planning process uses flawed information

In addition to the above issues, an underlying flaw with New Zealand's transmission planning process is that it is based on inadequate information. The supply-side scenarios that underpin transmission planning are not the best generation projects for NZ Inc.

The projects that the EDGS/GIT models use are only a subset of the viable generation projects. The listed projects are typically those near enough to existing transmission assets to be plausible in the medium term.

What is missing from grid planning is the list of high-quality<sup>2</sup> renewable generation projects that can be enabled by transmission investment. For example there are at least 1,000 MW of high-quality wind sites in the UNI and more in the LSI that can be enabled by transmission upgrades. These would deliver valuable diverse generation.

We ask for four things:

- Prioritise anticipatory investment on regions that deliver diverse renewable generation
- Improve the transmission planning process by gathering and using information about potential high-quality renewable generation (and demand) projects that are not currently being progressed
- Ensure that the anticipatory transmission investment techno-economic modelling fully captures the need for generation diversity (i.e. make sure the cost of firming renewables is robustly reflected, and that the datasets used highlight the diversity, or lack thereof, of various renewable resources in specific regions).
- Make material changes to the TPM such that anticipatory investments (especially those to enable generation) are not borne predominantly by load in the region that hosts them. All consumers benefit from enabling lower-cost generation, therefore all load should pay for anticipatory investments (ie they belong in the residual charge, until they can be apportioned specifically to beneficiaries).

---

<sup>2</sup> High-quality projects are those that have diversity from existing renewable generation, are lower cost, and/or have favourable generation shape. An example is upper North Island wind generation which is winter-biased in terms of generation output.

Ngā Mihi

A handwritten signature in blue ink, appearing to read 'Brett Woods', with a stylized, cursive script.

Brett Woods

Head of Regulatory and Government Relations

Contact Energy.