



NZGP1 Stage 1 Shortlist Consultation

The Net Zero Grid Pathways 1 (NZGP1) Stage 1 Shortlist Consultation runs from 30 June 2022 to 15 August 2022. Under the Net Zero Grid Pathways (NZGP) work programme, NZGP1 shortlisting is the latest step in seeking Commerce Commission approval for one or more grid backbone upgrades.

This information sheet gives an overview of the NZGP1 Shortlist Consultation document.

The approval process for projects within Net Zero Grid Pathways

Net Zero Grid Pathways covers Transpower's investments on the backbone of Aotearoa's electricity transmission grid. These investments will enable the electrification of the economy and assist with meeting New Zealand's decarbonisation targets. This includes ensuring the grid backbone has enough capacity to accommodate new renewable generation and maintain a secure and reliable supply of electricity as demand grows.

Transpower's grid upgrade project proposals are submitted to the Commerce Commission for approval. An application for funding is known as a Major Capital Proposal or MCP. In developing an MCP, Transpower uses future scenarios and modelling to identify the grid needs, then develops options, consults on a long-list, further develops the preferred options, consults on a shortlist, then submits a preferred option to the Commerce Commission, seeking approval to deliver the project.

When identifying investment needs, Transpower models and considers a range of future scenarios for new generation and demand. For the NZGP1 MCP these include major changes such as the potential close of New Zealand's Aluminium Smelter at Tiwai Point, possible outcomes of the NZ Battery Project and forecast new generation investment. We also consider the changing use of electricity in New Zealand as new technologies emerge, companies decarbonise industrial processes, and new industries based on renewable electricity are potentially developed.

Within its NZGP work Transpower is taking a wider view of future investment – seeing several needs in an area across time and looking at options that may meet one or more of those needs. The resulting options could be minor grid upgrades to existing lines, the construction of new lines, and other alternative technologies and approaches that may supplement or replace the need for major grid upgrades. We sought feedback on a long-list of options in 2021. This NZGP1 Shortlist Consultation examines the grid investment needs and a refined list of options as the last step ahead of seeking approval for our proposal from the Commerce Commission later this year.

Our NZGP1 Stage 1 Shortlist and proposal consultation

Our shortlist comprises investments to enable new renewable generation in the lower North Island, Hawkes Bay and the Bay of Plenty, as well as accommodate the closure of the New Zealand's Aluminium Smelter at Tiwai Point or significant additional South Island renewable generation. From our analysis, in all plausible scenarios, investment in added capacity is required on the grid backbone south of Whakamaru in the North Island including Wairakei, along with the Central North Island and the High Voltage Direct Current (HVDC) link across Cook Strait.

The shortlist has been developed following our industry workshops and consultation on demand and generation scenarios and subsequent long-listing consultation in 2020 and 2021. We have identified one short list option we intend (subject to feedback) to be our NZGP1 Stage 1 proposal to the Commerce Commission later this year.

The shortlist option that would form our proposals for Stage 1 requires investments in added grid capacity of approximately \$350 million. Our options seek to first extract more capacity from the existing grid backbone. The options vary and include increasing the capacity of existing lines by, for example, adding an extra wire (duplexing) to some lines and the addition of a fourth cable to increase capacity of the HVDC link. These projects can be delivered within two to five years. Their construction and delivery would be programmed to optimise the resources available from our service providers.

We also propose to seek funding to study longer-term upgrades to existing lines along with two new potential transmission corridors through the Central North Island and between Wairakei and Whakamaru. This would allow us to investigate the feasibility of these upgrades and new lines, with a range of stakeholders including local authorities, iwi and landowners. If viable and economic, formal approval would be sought from the Commerce Commission for these projects as part of subsequent stages of our NZGP1 programme. As well as investigating further stages of NZGP1, we will also start industry engagement on NZGP2 – our investigation into a resilient grid backbone supported by strong regional interconnections – later in 2022.

The shortlisted projects within the shortlist consultation document cover a range of investments. Your feedback from this consultation, including your views on the enabling role of electricity and the expected rate of change will help to inform our decision of a final preferred option to take forward for approval.

Your feedback will help determine preferred options

From August 2022, Transpower will consider your feedback on our shortlist of investment options. We will also undertake more detailed cost estimates for each option and undertake any further economic analysis that is required to confirm a final preferred option. This analysis will be collated into our final submission which is expected to be made to the Commerce Commission later in 2022.

The release of the new Transmission Pricing Methodology (TPM) means that arrangements for how the costs of our upgrades are allocated to customers have changed. In parallel with the shortlist consultation, Transpower will soon release a separate document outlining indicative pricing for the preferred option discussed. This will allow our customers and others to understand the pricing implications along with the benefits of the proposed investment. The indicative pricing document will be available on our website, www.transpower.co.nz/NZGP.

Transpower is particularly interested to know whether our picture of the future and scenario assumptions are reasonable, and whether there is anything missing from the shortlist or further criteria for decision-making. We welcome all feedback. Please email written feedback in either Microsoft Word or PDF format to nzgp@transpower.co.nz by 5pm 15 August 2022.