

# Introduction

The document is a supporting attachment to the Upper South Island Upgrade Stage 1 Major Capex Proposal application. It should be read in conjunction with our main proposal. This attachment summarises our consultation efforts on this project and outlines how stakeholder feedback has been incorporated throughout the development of this proposal.



An overview of feedback following the long list and short list consultations can be found in the following sections. A summary of other stakeholder engagement activities – including non-transmission solutions – is summarised throughout the document suite.

Date	Activity
August 2023	Consultation on long list of options
September 2023	Transmission Planning Report 2023
February 2024	Request for Proposals for non-transmission solutions
December 2024	Consultation on short list of investment options
April 2025	Further consultation on short list of investment options

## 1 Long list consultation

In August 2023, Transpower consulted on a long list of potential options for the Upper South Island Upgrade.<sup>1</sup> The submission period was open from 24 August to 6 October 2023.

We received three submissions from:

- Orior
- Christchurch International Airport Ltd
- NewPower

Following the consultation, we published a summary of submissions along with our responses to the matters raised.<sup>2</sup>

### 1.1 Long list consultation feedback

Submitters were generally supportive of the need for investment in the Upper South Island to ensure a reliable electricity supply.

Two respondents suggested additional long list components for consideration, which we subsequently added to the long list and assessed using our evaluation criteria (refer to Attachment 3 for more details).

Upper South Island upgrade project - Long-list consultation | Transpower

<sup>2</sup> Upper South Island Long List Consultation - Summary of Submissions November 2023

Regarding regional demand growth:

- Christchurch Airport informed us of expected load growth at its site, which had not been included in our forecasts. Based on this input, we updated our demand forecasts to incorporate electric aviation at the airport.
- Orion sought clarification on our assumptions regarding the Upper South Island Load Manager. We confirmed that our demand forecasts assumed its continued operation. This was clarified through direct discussions, and no changes were required.

For a detailed summary of submissions, please refer to our <u>Long-list summary of submissions</u> document.

## 2 Request for Non-transmission solutions

As part of the long list consultation, we issued a Request for Information (**RFI**) to explore potential Non-Transmission Solutions (**NTS**) as alternatives to meet the identified need.<sup>3</sup>

In February 2024, we issued a follow-up RFI (RFP Stage 1<sup>4</sup>) to provide further clarity on the issues and information requirements. The objective was to gather detailed data on available NTS options, including their capacity and indicative costs, to support our shortlisting process. If an NTS component was shortlisted as part of the preferred investment option, we intended to incorporate it into the Major Capex Proposal (**MCP**) and pursue contractual arrangements to implement that NTS.

We received 17 responses, which included:

- Detailed technical and cost information from some respondents.
- General expressions of interest and support from others.
- Proposals for specific projects or technologies for Transpower's investment.

Market responses received indicated that the available NTS capacity was limited and pricing was uncertain. As a result, we decided not to proceed at that time. Nevertheless, we believe NTS has future potential to support the needs of the USI. While NTS alone are unlikely to fully replace the need for transmission investments outlined in our development plans, we continue to believe that they may play a role in deferring investments in the late 2020s or managing risks associated with transmission project delays.

We have been working with the Commerce Commission to trial a new approach. Specifically, we are seeking approval for a budget based on the deferral value of transmission investment, allowing us to delay transmission investment by one year.

For further details on our approach to NTS, refer to Attachment 8.



<sup>&</sup>lt;u>Upper South Island upgrade project - Long-list consultation | Transpower</u>

<sup>4</sup> Request for Proposals: Upper South Island Non-Transmission Solutions | Transpower

## 3 Short list consultation

Following the long list consultation, Transpower reviewed stakeholder feedback, incorporated relevant changes, and continued with the investigation process. The long list components were evaluated using high-level screening criteria, including indicative cost, to eliminate options that were not suitable for further consideration.

Because no single short list component could fully meet the investment need, we combined multiple components into development plan options. These options were assessed using the Capex IM investment test (Investment Test) to ensure they addressed voltage stability and thermal capacity constraints in the Upper South Island through to at least 2050.

In December 2024, Transpower consulted on the short list development plans and our preliminary application of the Investment Test for the Upper South Island Upgrade. The submission period was open from 18 December 2024 to 14 February 2025.<sup>5</sup>

We received eight submissions from stakeholders, including electricity distributors, generators, and major consumers. Following the consultation, we published a summary of submissions along with our responses.<sup>6</sup> Overall, submitters supported the need for investment to ensure a reliable electricity supply in the USI.

#### 3.1 Short list consultation feedback

Overall, submitters supported:

- The short list options and our preliminary application of the Investment Test.
- The conclusion that Option 2 provides the highest positive expected net electricity market benefit.
- The robustness of Option 2 under sensitivity analysis, with Fonterra specifically highlighting its robustness under a scenario with increased capital costs.

Orion requested clarification on a potential discrepancy in cost estimates for Option 2 across different documents. In response, we clarified the distinction between Stage 1 costs and full development costs in this application.

Orion noted some voltage disturbances that they were identifying on their network which Transpower has agreed to look into.

For a detailed summary of submissions, please refer to our <u>Short-list summary of submissions</u> document.



Upper South Island upgrade project - short-list consultation | Transpower

<sup>6 &</sup>lt;u>Short-list consultation - Summary of Submissions | Transpower</u>

### 4 Further consultation on short list

Following the short list consultation, we further refined our cost estimates, incorporating a more detailed understanding of the activities, resources and scope of work required. This has led to cost increases across all short list options.

The primary drivers of the cost increases are the transmission line upgrades in the region. The upgrades have proven more complex than initially anticipated and this has increased the scope of work. For instance, numerous pivot irrigators located under our lines may fall within minimum safety distances during the upgrades, and there are reduced ground to conductor clearances (underclearance) that will need to be remediated or mitigated.

Our updated estimate for our preferred Stage 1 investment has increased to approximately \$167 million, up from the \$77 million presented during the December 2024 short list consultation.

Moreover, the updated benefit analysis has materially changed the indicative Transmission Pricing Methodology (**TPM**) starting allocations from the December 2024 consultation. This change is primarily due to a revised treatment of the voltage stability constraint between the lower and upper South Island, revealing a larger load deficit in the USI without investment. Approximately 75% of the investment's electricity market benefits now stem from avoiding the self-supply costs during low generation periods, meaning more benefit accrues to USI consumers. This has triggered the use of a different clause in the TPM, resulting in most of the cost of this investment being allocated to USI consumers. Refer to Attachment 9 for more detail.

In April 2025, Transpower re-consulted on the short-listed development plans. The submission period was open from 15 April to 5 May 2025. We received four submissions from electricity distributors and major consumers. Following the consultation, we published a summary of submissions along with our responses.<sup>7</sup>

#### 4.1 Further consultation feedback

Overall, most submitters are supportive of the proposed investment but raise concerns regarding the application of the TPM for this project. Orion acknowledged that grid reinforcement in the USI will eventually be required to enable New Zealand's energy transition but raised a variety of issues. We have engaged directly with Orion over its concerns. We understand we have addressed them and that Orion is now supportive of our investment proposal.

New Zealand Steel is particularly concerned about the TPM's impact on demand customers, emphasising the need for thorough justification of transmission price increases for consumers remote from the upgrade area. It requests that Transpower fully explore and justify the modelled outcomes for these beneficiaries before proceeding.

The Major Electricity Users Group (**MEUG**) supports the need for the project but has concerns about the indicative starting allocations and benefit-based charges. MEUG sought better transparency around how these charges are forecast. It was supportive of the additional consultation process given the substantial cost increase and of Transpower seeking a non-transmission solution



<sup>7</sup> USI Short-list - July 2025 - Summary of submissions.pdf

allowance. Transpower held a meeting with MEUG and New Zealand Steel to go over the implementation of the TPM for market benefit-based investments.

Electricity Ashburton also shows strong support for the proposed investment and would like the project to advance as soon as possible. It emphasises the importance of the reliability of electricity delivery to minimise the risk and economic damage of widespread outages, and for customers considering electrification to support decarbonisation. Regarding the updated cost of the project, EA Networks considers the proposed investment (a dual switching station) to be a pragmatic solution given the existing grid configuration, although the cost-benefit assessment shows only a small net electricity market benefit. EA Networks is also concerned about the significant shift in TPM allocation to load customers and asks that Transpower revisit its forecasts to take account of a range of likely outcomes. EA Networks has also considered non-transmission solutions but believes that global market pressures from electrification will likely cause cost escalation and thus supports advancing the project as soon as possible.

Orion suggested that a more balanced approach to forecasting might reveal that constraints will emerge later than currently projected, and this deferral could reduce immediate financial impacts on consumers and allow time for more cost-effective non-transmission solutions to be evaluated and implemented. It acknowledged that grid reinforcement in the USI will eventually be necessary. We have engaged with Orion regarding its concerns and considered if there is sufficient certainty regarding new generation or reduced demand to defer the need for this project. Following this review we have concluded that while there are several new generation projects in various stages of development, there is very limited certainty about the contribution these could make to peak demand (e.g., a solar project without a battery energy storage system (BESS) will be unable to provide capacity on a winter night). We have also reviewed our demand projections. Our view is that while some short-term growth may have been deferred there is still strong expectations of growth in the region. Following our discussions with Orion we understand that they are supportive of this investment proceeding.

For a detailed summary of submissions and our responses, please refer to our <u>consultation summary</u> of submissions document.



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