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27 July 2023

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## **Second short list consultation to support Net-Zero Grid Pathways Phase 1 Major Capex Proposal (Stage 1)**

Dear Dane

Thank you for taking the time to meet with us on 21 July, regarding Net Zero Grid Pathways 1 Stage 1 (NZGP1.1) Major Capex Proposal (MCP).

As we discussed, following the Commission's own identification of an error on the inclusion of ongoing costs, we engaged an external consultant to fully review our application of the Investment Test calculations.

The external review consultant identified a further material error in how the costs of the counterfactual were included in the Investment Test. This results in the net benefits for the proposed investments being materially understated both in our original application and subsequent addendum. After reviewing the corrected results, we now also prefer a different option to the one we first preferred in our June 2022 short list consultation and included in December 2022 application, and also to the option we subsequently preferred in our June 2023 Addendum. After reviewing the corrected results, we now also prefer a different option to the one we first preferred in our June 2022 short list consultation and included in our December 2022 application, and also to the option we subsequently preferred in our June 2023 Addendum.

The new option we prefer (referred to as Option 14 in our June 2022 short list consultation) is very similar to our originally preferred three stage option (Option 10) that we consulted on, however it has additional project outputs in the two future stages. In Appendix A we

have set out the difference in the project outputs between Option 10 and 14. (Note our June 2023 Amendment preferred the first two stages of option 11)

We think it prudent to ensure our stakeholders are aware of the changes and have an opportunity to provide feedback. We intend to publish a second, targeted short list consultation:

1. to communicate the correct net benefits and new preferred option.;
2. highlight the additional projects in future stages of that option.
3. include the Tiwai sensitivity analysis for the new preferred option and
4. to further inform stakeholders provide some of the clarification and support information for our application that we have developed through our ongoing discussions with the Commission. to further inform stakeholders, we will provide some of the clarification and supporting information for our application that we have developed through our ongoing discussions with the Commission.

We intend to run this consultation for two weeks, commencing in the week of the 7<sup>th</sup> of August. Prior the consultation we will contact the stakeholders that submitted on our previous consultation to ensure they are aware of their opportunity to comment. As the correction increases the net benefits, we do not expect any material change in stakeholders' views.

To ensure stakeholder confidence in our process and revised results, we will provide as part of the consultation, a letter from our external review consultants. This will set out their quality assurance of the revised Investment Test application. This will set out their quality assurance process of the revised Investment Test application.

At the completion of the consultation period, and after considering feedback, we will provide the Commission with, and publish, an updated proposal. This will include those attachments to the proposal that have been updated to be consistent with the corrected net benefits and new preferred option.

## **Timeline**

Our consultation and updated submission timeline is:

Contact Stakeholders	3 August
Release Consultation	10 August
Close Consultation	23 August
Submit Updated Application	31 August

We appreciate you giving us the opportunity to provide a further update to our submission, to both clarify and improve it for the Commission and stakeholders. We appreciate you giving us the opportunity to provide a further update to our submission, to both clarify and improve it for the Commission and stakeholders. We look forward to providing you with the updated application.

Regards,



John Clarke

General Manager Grid Development

## Appendix A NZGP1 Project outputs

In the table below we compare the project outputs from our previous preferred option and our new preferred option. Note, our short list consultation preferred position included costs for investigating investment in future stages, these were excluded in our June 2023 Addendum.

Table 1: Project outputs for the preferred option compared to short list consultation.

	Preferred option consulted on in June 2022 – Option 10	New preferred option – Option 14
Stage 1	<ul style="list-style-type: none"> <li>• Install new +/-60 MVAR continuous/120 MVAR overload STATCOM, +49MVAR filter bank, bus extension and associated equipment.</li> <li>• Install Variable Line Rating (VLR) and tactical thermal upgrade (TTU) of both 220 kV circuits on the Tokaanu-Whakamaru A and B lines to 95°C</li> <li>• Duplex the 220 kV Tokaanu-Whakamaru A and B circuits with Goat conductor to operate at a maximum temperature of 120°C</li> <li>• Install VLR and TTU of the 220 kV Bunnythorpe-Tokaanu A and B circuits to 95°C</li> <li>• Split the 110 kV Bunnythorpe-Ongarue A circuit at Ongarue</li> <li>• Upgrade protection on the 220 kV Huntly – Stratford 1 circuit on the Huntly-Taumarunui A line and Stratford-Taumarunui A line, between Huntly and Stratford</li> <li>• Replace the special protection scheme at Tokaanu</li> <li>• Install a TTU on both circuits of the 220 kV Wairakei-Whakamaru C line to 100°C</li> <li>• Split the 110kV Edgecumbe-Kawerau circuit</li> <li>• Install a TTU of the 220 kV Edgecumbe-Kawerau 3 circuit on the Ohakuri Edgecumbe A and Kawerau-Deviation A lines between Edgecumbe and Kawerau to 90°C</li> <li>• Investigate options for reconductoring either 220 kV Brunswick-Stratford line</li> <li>• Investigate options, routes and progress designs for a new or enhanced Wairakei-Whakamaru line</li> </ul>	<p>Same as in our June 2022 consultation, with the following exclusions:</p> <ul style="list-style-type: none"> <li>• Investigate options, routes and progress design for a new 220 kV line north of Bunnythorpe</li> <li>• Develop a methodology for quantifying resilience benefits</li> </ul>

	Preferred option consulted on in June 2022 – Option 10	New preferred option – Option 14
	<ul style="list-style-type: none"> <li>Undertake detailed design for Duplexing of both 220 kV circuits on the Bunnythorpe-Tokaanu circuits</li> <li>Investigate options, routes and progress design for a new 220 kV line north of Bunnythorpe</li> <li>Develop a methodology for quantifying resilience benefits</li> </ul>	
Stage 2 <sup>1</sup>	<ul style="list-style-type: none"> <li>Rebuild the Wairakei-Whakamaru A line</li> <li>Install a 4th HVDC cable</li> <li>Reconductor the BRK-SFD A line</li> <li>Investigate lower North Island (LNI) voltage stability</li> <li>Investigate LNI system stability</li> <li>Investigate diversifying the Bunnythorpe substation</li> </ul>	Same as in our June 2022 consultation, with the following exclusions: <ul style="list-style-type: none"> <li>Investigate lower North Island (LNI) voltage stability</li> <li>Investigate LNI system stability</li> <li>Investigate diversifying the Bunnythorpe substation</li> </ul>
Stage 3	<ul style="list-style-type: none"> <li>Install a TTU of the Bunnythorpe-Wairakei 220 kV circuits</li> <li>Duplex the Bunnythorpe-Tokaanu 220kV circuits</li> </ul>	Same as in our June 2022 consultation

The exclusions from stages 1&2 for option 14 are for investigations and methodology development for project outputs that are not explicitly included in future stages.

We are considering putting the HVDC 4<sup>th</sup> cable project into a separate stage, from the Wairakei/CNI and HVDC future projects. This may be appropriate given the differing investigation requirements and the timing of the HVDC 4<sup>th</sup> cable project outputs. We will clarify this when we release the consultation.