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Consultation: NZGP 1 Short List Consultation

Thank you for the opportunity to comment on the Transpower's NZGP 1 Short List Consultation. We appreciate Transpower requesting information from participants as an input into the transmission planning process.

Please see below Contact's general response and specific response to the short list questions below:

General

Contact supports Transpower's innovative approach used to determine the shortlist options and has some comments below on assumptions used in the generation scenarios.

We would also like to reiterate our comments made in our October 2021 submission that we agree that timely and least-cost investment is required to maintain security of supply, and to facilitate the development and connection of renewable generation projects to meet the 2050 net-zero emissions target. The utilisation of both smart grid/non-transmission solutions and larger scale grid investments are needed to meet this target.

A firm commitment to grid investment is required to make the appropriate decisions on new generation and demand investment. The decision to invest is guided by whether grid congestion will limit generation output, or cause demand curtailment causing subsequent loss of production costs.

We support Transpower providing indicative pricing under the new TPM for the short list options and for any new grid investments going forward, as these can be used as inputs for any generation and demand investment decisions.

Wairakei Ring Generation Expansion Scenario

Contact has a pipeline of geothermal generation development in the Wairakei ring region planned in the next 7 years of up to 527 MW, including Tauhara B currently under construction (refer submission on Consultation: Prioritising the enablement of new wind and solar generation). With respect to regional diversity and the Region 2 generation expansion assumptions how much of this has been considered in this expansion model?

It is noted that section 1.32 of Appendix A mentions that adjustments of an additional 100MW of solar and 50 MW of wind generation in 2024 and 2023 respectively have been made in Region 2. Contact's view is that there is an abundance of both resources in this region (has the Rangitaiki Solar project been included?) so this adjustment level would need to be

increased by a reasonable amount. We also note that the number of connection enquiries has increased significantly in last couple of years, so the question is have these enquiries been considered in any adjustments for this region and others? We would be interested to see on how these additional adjustments affect the outcome of the short list options for the Wairakei Ring.

If you would like to discuss our response further, please do not hesitate to contact me.

Yours sincerely

Gerard Demler
Transmission Manager, Contact Energy

Question 1: *Do you agree with our staged approach to this major capital investment programme?*
Somewhat agree. We agree that a staged approach is a least cost solution for the HVDC and CNI regions but the longlist line upgrade/new line options for the Wairakei Ring may need to be brought forward as additional renewable generation is planned in the Wairakei, Bay of Plenty, and Hawkes Bay regions, but are not considered at present in the generation scenarios for the transmission planning assessment. These planned generation projects can be considered as a reasonable variation of the current scenarios.
Question 2: *Is our approach to NTS reasonable?*
Agree. NTS providers require a firm commitment to be economically viable if there are long lead times on their requirement. If an NTS is viable and can offset a large spend grid investment, then they should be considered.
Question 3: *Is our reduced list of options for enhancing capacity of the HVDC reasonable?*
Somewhat agree. The proposed stage 1 upgrade does not address the issue where the HVDC is reserve constrained that the stage 2 MCP would address, has the economic implication of this issue been assessed?
Question 4: *Is our reduced list of options for enhancing capacity of the CNI 220 kV corridor reasonable?*
Agree. Are there any constraints on north transfer on the Bunnythorpe to Wairakei line post the shortlist CNI upgrades?
Question 5: *Is our reduced list of options for enhancing capacity of the Wairakei Ring reasonable?*
Somewhat agree. Our RFI submission mentioned better utilisation of the Wairakei to Ohaaki lines by extending these lines to Whakamaru, why was this not considered? As per our question 1 response Contact's view is that one of the longlist upgrades may need to be brought forward to facilitate renewables that are planned in the region due to available geothermal, wind, and solar resources. We would also support the use of tactical options such as AGC or runbacks to manage the interim shortlist to longlist transition period and to allow planned transmission outages on the WRK-WKM B and C lines (amongst others in the region) to proceed. These outages are difficult to manage at present and requires renewable generation to be curtailed or come off completely. The addition of new generation on the WRK Ring will exacerbate this issue.

Question 6: *Are our scenario weighting sets reasonable?*
Agree. Contact believes that the weighting sets 2 – 4 are more reflective of what is forecasted in the future as we transition to a more decarbonised grid. Our view is that weighting set 4 would be the most accurate assumption.
Question 7: *Is our shortlist of HVDC and CNI options reasonable?*
Somewhat agree, please refer to our question 3 response.
Question 8: *Is our shortlist of Wairakei Ring options reasonable?*
Please see our response to questions 1 and 5. There is concern over the disruption to the grid caused by the implementation of options W1 and W4, when compared to option W7. W1 and W4 will require longer term planned outages that will need to be managed with respect security of supply and increased fuel costs due to the forced reduction in renewables. We acknowledge the short-term benefit of option of W1.
Question 9: *Is our choice of the preferred option reasonable?*
We reiterate our responses to the questions above.
Question 10: *Is our conclusion that upgrading existing assets is more economic than bypassing the existing grid reasonable?*
Agree, the cost of new HVDC systems is prohibitive. With reference to our question 8 response, economic consideration does need to be given to the disruption costs regarding whether to upgrade existing AC lines or build new lines.
Question 11: *Do you agree that our choice of preferred option is robust against sensitivity analysis?*
Agree