
From: [REDACTED]
Sent: 20/08/2020 8:10:26 a.m.
To: Feedback Aurora Plan [feedbackauroraplan@comcom.govt.nz]
Subject: Aurora Energy CPP application submission
Attachments: Waipori-PDA-External-Report.pdf

My submission concerns Aurora Energy's proposed Capital Expenditure with respect to the proposal to replace the Halfway Bush GXP to Berwick lines, commonly known as the Waipori A/B/C lines.

Aurora makes numerous references to this project in their 2020 Asset Management plan, though relatively scant information is provided around exactly what is being proposed. Given the following:

- 1) The large amount of CAPEX proposed (over 20 million forecast prior to RY25)
- 2) That these three lines are regionally important to the Dunedin grid. Unlike the majority of Aurora's subtransmission circuits, which generally function to move power from a Grid Exit Point to a Zone Substation, the Waipori line directly connect a significant multiple local or near-local generation sources to the Taieri ZSS's and to the HWB GXP.
- 3) Generally for a CAPEX of this size, in AMP publications (both prior years from Aurora and distribution companies around the country), a full discussion would be provided in the AMP around the various options available. This would usually start with a base case of "do nothing" and move upward from that point with detailed costings.

Aurora should therefore provide a detailed cost / benefit option analysis on this significant proposed CAPEX. This is especially the case as the proposed works are not scheduled to begin until RY24.

I also believe the following should be considered and a response be made publicly available:

- 1) Given the straitened financial circumstances Aurora (and the wider community) faces in 2020, is complete replacement required / justified of the entire set of three separate lines rather than targeted replacement of at-risk individual components for now? I note that Aurora has commented in prior AMP's that every original pole and crossarm on all three lines has been replaced at least once since the lines were constructed. Given that the A and B lines were first commissioned in 1907 and the C line in 1934, I assume a great deal of maintenance has been completed over the years and a drive along the line would appear to confirm this with numerous different insulator types, poles and cross arms in existence.
- 2) As noted prior, the Waipori A/B/C lines directly connect the Waipori, Deep Stream and Mahinerangi schemes to HWB and each of the lines are the same age and follow the same format (single pole line per each circuit) the entire distance from Waipori to HWB. However Aurora plans to replace only the portion of the lines under their control (i.e. HWB to Berwick) with the remaining portion owned by Trustpower. Would it not be more efficient to work with Trustpower to replace the entire lengths of the circuits rather than the Aurora portion only? I note that a number of the faults and conductor drops on these lines in recent years have actually originated within the Trustpower portion.
- 3) Could just one line be replaced for now with the others to come in the future?
- 4) If complete replacement of all three lines is required immediately, has consideration been given to fewer lines (maybe only one set of poles with two circuits on it?) of a higher voltage (66kv or 110kv) rather than the proposed two 33kv

circuits on two separate pole lines? While Aurora states that the two proposed 33kv circuits will be of a higher capacity than the existing three, it will be unlikely at that voltage and distance that they will be able to carry the full generation load that will be connected to them at Waipori. An internet search reveals a report authored by Electronet (attached) commissioned by Aurora in 2013 which considers a 110kv replacement of one of the existing lines. A detailed line item costing is provided with a total project estimate of 18.7 million. It appears from this report that Trustpower supported the proposal. It also appears that replacing just one of the existing 33kv lines with a 110kv circuit would mean significantly reduced Transpower interconnection charges. What was Aurora's response to this report and why was it not proceeded with? Has this been considered in 2020 as an alternate option to the 33kv option proposed? Would constructing a higher capacity line(s) allow more of the Waipori, Deep Stream and Mahinerangi schemes to be exported directly into the Aurora grid without having to pass through a Transpower line (and have to pay associated charges)?

In conclusion, I am not against a CAPEX proposal regarding the Waipori lines. However I am concerned that the proposal as it stands has not been consulted properly on, via the 2020 AMP, and may not be the best option where a longer term (and possibly less expensive) solution exists which could significantly reduce Transpower interconnection charges over the projected asset lifetime. I consider that if a longer term "upgrade" solution doesn't currently fit within Aurora's 3-5 year investment plan, then strong consideration be given to doing essential maintenance only for now and deferring significant CAPEX until such time as Aurora is able to dedicate more funds for a better solution.

Regards,

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20 August 2020