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By email to communications@transpower.co.nz

Dear Douglas

BPE-WIL consultation

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Transpower report "Bunnythorpe-Wilton (Judgeford to Wilton section) reconductoring investigation, Consultation on preferred replacement option and application of the investment test, March 2018.¹
2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.
3. This is a very well written and understandable paper. The comments that follow comprise two points of clarification and then comments on using unquantified benefits (UQB).
4. First the two points of clarification:
 - a) Do the forecast impacts on transmission inter-connection charges in table 15 refer only to the proposed application for an increase in RAB for RCP2 of \$8.894m (\$2021's) or to the expected total project costs over RCP2 (listed project) and RCP3 (balance in Base Capex)?
 - b) I think different demand forecasts have been used:
 - For estimating reliability benefits using VoLL: The 2016 Transmission Planning Report (TPR) demand scenarios.²
 - For estimating losses: A SDDP model using modified EDGS scenarios.³

Is the above correct or not? If correct, has Transpower reconciled any effect of the different demand forecasts on estimated benefits and losses?

¹ URL <https://www.transpower.co.nz/sites/default/files/projects/resources/BPE-WIL%20A%20Reconductoring%20Preferred%20Option.pdf>
at <https://www.transpower.co.nz/bunnythorpe-wilton-reconductoring-investigation>

² Consultation paper, section 4.4, bullet point 4, p23.

³ Ibid, section 4.5.3, paragraphs 2 and 3, p25.

5. In terms of UQB:

- a) Could you have included construction cost uncertainties by having a different cost probability distribution for different options, eg have a skewed distribution for more/less risky capex and therefore expected capex used in the CBA would reflect a quantitative estimate of the relative uncertain and this UQB would not be needed?
- b) Setting aside the point in paragraph 5 a) above and therefore assuming Transpower retains an UQB measure for certainty on construction costs, should the ticks for certainty on construction and maintenance costs be scaled to reflect relative NPV risk? In other words, given the relative NPV of capex to opex is about 4.5:1, and assuming upside cost risks proportional to total NPV, having potentially 3-ticks for both capex and opex UBB seems to be biased to give opex risks a higher ranking?
- c) The option value UQB is perhaps relevant where an option might absolutely exclude a particular scenario (EDGS or TPR) from being realised – but I don't think that's the case. It's more a matter of different JFD-WIL reconductoring options having different loss cost and reliability benefit effects on different demand scenarios. The relative net effects are therefore already tested in the sensitivity analysis and therefore there is no option value UQB to be considered.

Yours sincerely



Ralph Matthes
Executive Director