13 May 2022, from Mercury - Draft Assumptions Book

Question:

[..] we request that:

1. Transpower carry out an analysis of the sensitivity of the new TPM charges to perturbations in key assumptions. (e.g. fuel price, deficit generation prices, carbon prices, build cost curves, build time frames.) If Transpower has already conducted a sensitivity analysis, can the results of the analysis be provided to stakeholders?
2. Transpower clarify the assumptions in the book that have been specified in the Code and those that at Transpower's discretion.
3. Transpower extends the due date of the assumptions book consultation so that it aligns with BBI consultation for the Clutha Upper Waitaki Lines Project (CUWLP) and provides sufficient time to better understand how the new TPM model will interact with BBIs. As Transpower notes, the CUWLP consultation and the draft Assumptions Book consultation are complementary.

Response:

Question 1

The standard method is – in effect – a bespoke analysis for each benefit-based investment. The assumptions that are most influential on the individual customer allocations will vary from BBI to BBI. Therefore, we are unable to undertake a sensitivity analysis that would reliably indicate the most important assumptions across all (or even a small number of) BBIs.

Furthermore, there are a large number of input assumptions, and the process of producing allocations is multi-staged and time-consuming. In general, a traditional sensitivity analysis that varies each assumption independently of the others is not practicable. That said, given we assess benefits over a range of market scenarios which vary key inputs including demand, new generation, and hydrology, we expect it will usually be possible to understand the how sensitive the results are to these key assumptions. Furthermore, we expect to be able to qualitatively indicate the assumptions that are most influential on the results.

Question 2

The purpose of the assumptions book is to record assumptions and detailed methodologies that are not specifically referred to in the TPM (or wider Code). Therefore, most of the content of the draft assumptions book is not "TPM-mandated", so to speak. However, the draft assumptions book is, in our view, consistent with the higher level methodologies contained in the TPM.

In chapter 2 of the draft assumptions book, the only piece that might be described as TPM-mandated is the maximum 20-year duration of the standard method calculation period (section 2.2.3). We note that the "Background" sections in chapter 2 discuss the bases for the various assumptions contained in it.

Chapter 3 of the draft assumptions book is concerned with process and methodologies, so does not contain assumptions as such. Chapter 3 breaks down the higher level methodologies in the TPM into the specific steps we intend to apply. We note we have chosen T=100 in section 3.3.7.2 (the number of peak trading periods for the IRA for peak BBIs) which is TPM-mandated in so far as that is the maximum number of peak trading periods we could have chosen.

Chapter 4 of the draft assumptions book is the outcome of our application of the simple method processes and methodologies in section 3.5 for the first simple method period. The regions and factors in chapter 4 are not TPM-mandated, but the high level methodologies we have used to determine and calculate them are.

The benefit factors that will eventually be in chapter 5 will be calculated based largely on the BBI customer allocations in Schedule 1 of the TPM, and in that sense will be TPM-mandated.

Question 3

As noted in our consultation document, we are unable to grant extensions to our consultation period.