



TRANSPOWER

Keeping the energy flowing

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Rob Cahn
Acting Head of Compliance and Investigations
Commerce Commission
44 The Terrace
Wellington

Dear Rob

Response to final report from Strata Energy Consulting

Thank you for the opportunity to comment on Strata's final report on Transpower's performance against its quality standards in the 2018-2020 Disclosure Years. We understand this response will be published alongside Strata's report.

We welcome Strata's finding that the contraventions did not arise through a failure to observe good electricity industry practice. We also note that Strata has, in general, endorsed Transpower's management and operation of its network in RCP2.

Strata has highlighted a few questions that it considers were not addressed by information provided by Transpower in the course of the investigation. Strata also offered several recommendations on specific matters relating to management of reliability performance. In this letter we briefly respond to those matters, for the Commission's information and to provide context for Strata's findings.

Clarifications relating to interruptions data

Strata raised two points of clarification relating to interruptions data:

- that the major events interruption data provided by Transpower was based on the 'initial duration' of interruptions, and excluded certain events. Strata asked whether this is consistent with Transpower's Individual Price-quality Path (IPP) reporting obligations.¹ On 28 October 2021 we wrote to the Commission explaining that 'initial duration' in this context is a reference to an internal definition used by Transpower. Transpower reports interruptions consistent with the requirements of its IPP reporting obligations. The events identified by Strata were not excluded from IPP reporting but rather from the normalisation analysis we prepared (for the Commission's

¹ See paragraph 26.

investigation) to illustrate the impact of major events on quality standard compliance. We trust this explanation addresses Strata's question

- Strata observed that it had not received definitions for secondary cause codes and therefore was unable to identify the underlying causes for equipment failure interruptions.² Strata therefore recommended that Transpower should review and identify improvements that can be made in the level of analysis that it performs on its interruption data.³ Secondary cause code definitions are available and are utilised in our analysis of interruptions, but were not requested by Strata in this instance. We regularly analyse underlying causes in our interruption data; we present any trends and planned responses as part of our regular engagement with the Commission.

Post-event reviews

Strata expressed concern about the adequacy of Transpower's post-event reviews, and suggested that mitigation of the impact of high duration events could have improved average interruption duration and P90 performance.⁴ However, as Strata notes, Transpower has been continuing to invest in its Condition Based Risk Management (CBRM) systems and approach to asset management.⁵ CBRM includes capturing data and undertaking analysis and consideration of asset failures including mode type failures and the causes and impacts of interruption events.

We understand Strata accepts our introduction of CBRM will address Strata's concerns regarding the adequacy of post-event reviews.⁶ In addition, the RCP3 IPP requires Transpower to provide the Commission with detailed reviews of any unplanned interruption with a duration longer than 12 hours, providing an additional source of accountability (there have been no qualifying interruptions as at the date of this letter).

Power transformer replacements

Strata expressed concern about the basis on which Transpower transformed its power transformer asset class strategy to be aligned with international practices, and the apparent absence of a documented and approved business case for the change and whether in adopting the change Transpower met good electricity industry practice. The change was adopted after extensive engineering analysis reflected in an internal 2016 paper "Learnings from Power Transformer Decision Framework Trial" and a technical paper⁷ presented to the Electrical Engineers Association conference in 2017. Copies of these papers are provided to the Commission with this letter.

² See paragraphs 8, 79.

³ See paragraph 173.

⁴ See paragraph 193.

⁵ See paragraph 174.

⁶ See paragraph 201.

⁷ Power Transformers – A quantified benefits approach to asset management planning (L Toman and M Clark)

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Dan Twigg', with a stylized flourish at the end.

Dan Twigg
Governance and Administration Manager