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Ms Vanessa Howell
Head of Fibre Regulation
Regulation Branch
Commerce Commission
44 the Terrace, Wellington 6011

Dear Vanessa,

Submission – further questions Dr Lally responds to concerning the cost of capital

Executive Summary

1. There are two issues needing to be considered by the Commission and its expert which we address in this submission, they are:

   a. The calculation of losses for Chorus and LFCs in the Pre-Implementation Period (2011-2022) on an inflation adjusted basis; and

   b. The suitability of the tax-adjusted market risk premium (TAMRP) estimate for the return on equity.

2. The Pre-Implementation Period covers a time period where the Commission's inflation forecasting methodology materially impacted Part 4 supplier nominal returns by between 50-80 basis points. Accordingly, Vector considers any calculation of the inflation adjusted discount rate (consistent with the target real return) should have a similar impact on the loss asset for Chorus and LFCs.

3. Our concerns with the TAMRP and the applicability of the different models used to generate the estimate have not been responded to. Indeed, Vector has raised concerns about models such as Siegel I which rely on a real risk-free-rate of 3.5 percent have limited applicability when real-risk-free rates are negative. Vector engaged Dr Hird from CEG to analyse these issues as part of the Electricity Distribution Business (EDB) Input Methodology (IM) consultation in 2019 prior to the setting of the EDB Default Price Path. We believe the issues raised by CEG in the *report Dealing with Negative Real Risk-Free Rates* warrants consideration in the setting of the Fibre IMs and re-submit the report for consideration.

Background

4. The Commission released a paper by Dr Lally on 25 May 2020 which provides further comment on a range of matters raised in submission in relation to the target return and specific weighted average cost of capital (WACC) decisions adopted by the Commission for both determining the value of Chorus' loss asset and initial price setting process under Part 6 of the *Telecommunications Act 2001* (the Act).

5. On 10 July 2020 the Commission published a list of four questions it posed to Dr Lally to address. The paper from Dr Lally does in fact cover a broader but selective range of issues raised by some parties on the target return and specific WACC parameters.

6. On 10 July the Commission also provided an update to industry that it was now undertaking further consultation on the Input Methodologies. This update included a further consultation on the Commission's approach to estimating the loss asset for Chorus. On 23 July the Commission released its consultation for the Chorus loss asset where it has chosen to estimate losses using a discounted cashflow (DCF) approach as opposed to estimating losses from retrospectively applying a building block model cost framework.

7. Our comments on the loss calculation for the pre-implementation period will be elaborated further in our response to the Commission's Further Consultation Paper on *the Calculation of the Initial Value of the Loss Asset* for Chorus and local fibre companies (LFCs).

Targeting Real Financial Capital Maintenance for the Financial Loss Asset

8. Both Chorus and the Commission have indicated their preference for targeting real financial capital maintenance (real FCM) for the setting of revenue and adjusting asset value over time. This means targeting and delivering an inflation adjusted return on investment. This is the model the Commission adopts for setting prices under Part 4 of the Commerce Act for all suppliers excluding Transpower (which has its revenues calibrated to provide a nominal return).

9. The targeting of real FCM should be adopted consistently between Chorus' forward looking prices and establishing the value of losses incurred in the pre-implementation period. The fact the Commission has now switched its methodology for quantifying the

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losses to using a DCF analysis does not abrogate its obligation to set an inflation adjusted discount rate for the pre-implementation period losses incurred over the 2011-2022 period.

10. In the Part 4 context the Commission’s target real return is affected by three separate elements when setting revenues and adjusting asset values over time. These elements are the nominal WACC (which includes an inflation expectation), the deduction of forecast inflation of the regulated asset base (RAB) in setting revenues and the indexation of the RAB using actual inflation. The Commission has noted in both the Chorus process and in Part 4 that these elements applied together both target and deliver an inflation adjusted return on investment to deliver real FCM.

11. The pre-implementation period coincided with price setting events for Part 4 gas pipeline businesses (GPBs) and electricity distribution businesses (EDBs). The nominal returns for Part 4 regulated suppliers (including Vector’s regulated businesses) over a significant portion of the pre-implementation period were typically 50-80 basis points lower than the inflation forecast used by the Commission for setting prices over the 2012-2020 period.

12. Accordingly, the discount rate adopted by the Commission, (if using the Commission’s preferred same inflation forecasting methodology) should be expected to deliver a similar return to Chorus and LFCs over the same period.

13. Vector has expressed our concern about the methodology adopted by the Commission where nominal returns deviated significantly from the forecasts used by the Commission when setting prices in the Part 4 context. Indeed, we have challenged the suitability of the Commission’s inflation forecasting method for setting the inflation adjusted return. However, the Commission has continued to express a preference for its current methodology which relies significantly on the Reserve Bank of New Zealand (RBNZ) forecasting and inflation target.

14. We will be submitting further on the impact of inflation adjusting the financial loss asset based on the Commission’s inflation forecasting methodology on financial losses in the Commission’s recently released consultation process for determining financial losses.

The tax-adjusted market risk premium

15. Dr Lally’s paper responds to submissions from the Major Electricity Users Group and the Board of Airline Representatives on the rounding methodology used to set the tax-

adjusted market risk premium (TAMRP). This discussion was not in response to a request by the Commission. However, the Dr Lally's paper did not respond to concerns raised by Vector about the continued appropriateness of the estimates used to derive the TAMRP. Vector highlighted a key concern about the sources used by the Commission to derive its TAMRP rely on real-risk free rates being much higher than the current prevailing market environment. Indeed, these concerns we also raised by Vector as part of the setting of the default price path (DPP) for electricity distribution businesses where Vector noted the prevailing risk-free environment invalidated some of the source data used by the Commission to set its TAMRP in the Part 4 Input Methodologies as part of the 2016 IM review.

16. In July 2019, Vector submitted a report from CEG addressing, amongst other things, the Commission's method for estimating the TAMRP. The Commission decided not to respond to that analysis because it was provided outside formal consultation processes for the electricity distribution IMs.

17. CEG highlighted Dr Lally's estimates of the Siegel I TAMRP is simply inapplicable in the current low real risk-free rate environment.[1] Dr Lally's Siegel I TAMRP estimate assumes that NZGB investors always expect a 3.5 percent real return. This assumption is clearly inapplicable in the context of the IM method estimating a real risk-free rate of -0.69 percent (4.2 percent lower) and inflation indexed NZGB yielding 0.5 percent (3 percent lower).

18. Further, Dr Lally's survey estimates of the TAMRP failed to factor in that the survey respondents' risk-free rates are higher than the NZGB yields used in the IMs.[2] That is, the survey respondents' TAMRP relative to the prevailing NZGB yield is higher than the TAMRP they report relative to their preferred (higher) risk-free rate.

19. Vector notes that the Commission has not sought to engage with the issues raised by CEG in the Fibre IM process despite the issues being generic to the TAMRP and, therefore, relevant across industries.

20. CEG identified an error in the way that Dr Lally had used historical data from the NZX50 Gross index from 2003 to 2014. CEG noted when this error was corrected the Ibbotson estimate was raised by around 0.2 percent. Dr Lally appears to have made this

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[1] CEG, *Dealing with negative real risk-free rates*, p.2

[2] *Ibid*, p.33

correction in the Fibre IM process. However, if Dr Lally has been asked to consider CEG's analysis there has been no discussion of the other errors identified.

21. The CEG report noted Dr Lally's estimate of the TAMRP as part of the Part 4 IM process involved a mathematical error. Dr Lally incorrectly assumed that from 2003 to 2014 the NZX50 Gross index included a value for imputation credits (which he then attempted to remove).[3] In fact, this series ceased to include imputation credits in 2005 and, as such, Dr Lally's adjustments to this series are invalid from 2005 onwards.

22. Vector considers that it would be good regulatory practice for the Commission to ask its experts to have regard to the entirety of this report. In a context where the Commission is determining price paths using real risk-free rates of negative 1 percent, it cannot rely on an estimate of the TAMRP that rely on an assumption that real risk-free rates are at levels much greater than the current environment.

Yours sincerely

Richard Sharp
GM Economic Regulation and Pricing

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[3] *Ibid,* p.33