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Cost of capital determination for Tuatahi First Fibre Limited and Northpower Fibre Limited ID

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Associated documents

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1 February 2022	ISSN 1178-2560	Cost of capital determination for Chorus, Enable, Tuatahi, and Northpower Fibre ID
30 November 2021	ISSN 1178-2560	Fibre Information Disclosure Determination 2021
1 July 2021	ISSN 1178-2560	Cost of capital determination for Chorus' price quality path for PQP1
27 May 2021	ISBN 978-1-869458-98-0	Guidelines for WACC determinations under the cost of capital input methodologies – Regulation under Part 4 of the Commerce Act 1986 and Part 6 of the Telecommunications Act 2001
13 October 2020	ISSN 1178-2560	Fibre Input Methodologies Determination 2020

Commerce Commission
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WACC estimates for disclosure year 2023 for Tuatahi and Northpower Fibre

1. This determination specifies the weighted average cost of capital (WACC) estimates that will apply for information disclosure (ID) regulation for disclosure year 2023 for Tuatahi First Fibre Limited (**Tuatahi**) and Northpower Fibre Limited (**Northpower Fibre**).

2. The timing of our WACC determinations for Fibre ID regulation differs depending on the disclosure year of the regulated companies. Tuatahi and Northpower Fibre have disclosure years of 1 April to 31 March, with disclosure year 2023 being the year ending 31 March 2023. We determine an ID WACC for Chorus Limited in January each year as its disclosure year is 1 January to 31 December and for Enable Networks Limited in July, as its disclosure year is 1 July to 30 June. As part of the implementation of the Fibre ID regime on 1 January 2022 we published a WACC determination on 1 February 2022 applying to Tuatahi and Northpower Fibre for disclosure year 2022, being the period 1 January 2022 to 31 March 2022.[1]

3. The vanilla and post-tax WACC estimates for disclosure year 2022 for Tuatahi and Northpower Fibre is summarised in Table 1 below.

Table 1: Vanilla and post-tax WACC estimates

	Mid-point
Vanilla WACC	6.30%
Post-tax WACC	5.94%
Standard error	0.0131

4. The WACC estimates have been calculated as at 1 April 2022, which is the first day of disclosure year 2023 for Northpower Fibre and Tuatahi.

5. This determination should be read in conjunction with our guidelines for estimating the WACC under the IMs.[2] These guidelines form part of this determination. The guidelines explain our methodology for calculating WACC estimates, including:

   5.1 the formulas used;
   5.2 the values for WACC parameters which are fixed under the IMs; and
   5.3 our methodology for determining the risk-free rate and average debt premium.

[1] Commerce Commission, Cost of capital determination for Chorus, Enable, Tuatahi, and Northpower Fibre ID, NZCC1 [2022], 1 February 2022.

[2] Commerce Commission, Guidelines for WACC determinations under the cost of capital input methodologies, 27 May 2021.

Further details regarding the WACC estimates

WACC parameter values for Tuatahi and Northpower Fibre

6. The parameter values used to generate the mid-point WACC estimates for Tuatahi and Northpower Fibre is summarised in Table 2 below.[3]

Table 2: Values used to calculate WACC estimates

Parameter	Estimate
Risk-free rate	2.50%
Average debt premium[4]	1.62%
Leverage	29%
Asset beta	0.50
Equity beta	0.70
Tax adjusted market risk premium	7.5%
Average corporate tax rate	28%
Average investor tax rate	28%
Debt issuance costs	0.33%
Cost of debt	4.45%
Cost of equity	7.05%
Standard error of midpoint WACC estimate	0.0131
Mid-point vanilla WACC	6.30%
Mid-point post-tax WACC	5.94%

*The numbers are rounded to two decimal points.

[3] All parameter values except the estimate of the risk-free rate and the average debt premium are set in the Fibre IMs.

[4] S&P target credit rating BBB.

Risk-free rate

7. The risk-free rate reflects the estimated bid yield to maturity on New Zealand government bonds with a term to maturity equal to the length of the regulatory period (three years).[5]

8. Our estimate of the five-year risk-free rate is based on data reported by Bloomberg for the three-month period ending March 2022 in respect of the May 2024 and April 2025 maturity bonds.

9. The daily data reported by Bloomberg is linearly interpolated, annualised (to reflect the six-monthly or quarterly payment of interest) and averaged to produce the estimate of a 2.50% interest rate on New Zealand government bonds with a three-year term to maturity, as estimated at 1 April 2022.[6]

Average debt premium

10. The average debt premium of 1.62% is the historical five-year average of the debt premium values for the current debt premium reference year (DPRY 2022) and the four previous DPRYs, as shown in Table 3 below. This is the same as the average debt premium input used in our February 2022 WACC determination.

Table 3: Average debt premium for Tuatahi and Northpower Fibre (%)

	DPRY 2018	DPRY 2019	DPRY 2020	DPRY 2021	DPRY 2022	Average
Debt premium	1.75	1.65	1.70	1.70	1.30	1.62

[5] The Fibre IMs define a regulatory period as "the relevant regulatory period for price-quality regulation applicable to a regulated provider as notified in a PQ determination". The current regulatory period for Chorus under its PQ determination is three years which applies to all of the fibre regulated entities for purposes of determining the ID WACCs. We interpolate between the two closest bonds surrounding a three-year remaining term. This requires taking the yields of the bonds with a remaining term immediately before and after with a three-year term to maturity on that day. The term to maturity is constant but the bonds' remaining terms to maturity decrease over time so the bonds immediately before and after the target term may change over time.

[6] Note that the target term to maturity for the risk-free rate and debt premium are different for the first regulatory period (the risk-free rate has a term equal to the length of the regulatory period, i.e., three years for the first regulatory period, and the debt premium has a five-year term). For more information see the cost of debt section of the Fibre IM final reasons paper: Commerce Commission "Fibre input methodologies: Main final decisions – Reasons paper", 13 October 2020, paras 6.81 to 6.264.

11. DPRYs for all fibre regulated entities start on 1 September and end on 31 August.[7] DPRY 2022, being the DPRY ending 31 August 2022, is the current DPRY for Tuatahi and Northpower Fibre as it contains the start of disclosure year 2023 (1 April 2022). The Fibre IMs state that the calculation of the debt premium for a DPRY is estimated for each business day in the 12 months preceding the start of the DPRY. This means that for all the DPRYs we have used bond data starting on 1 September and ending on 31 August. (The data used for DPRYs 2018 to 2021, in Table 3, is the same data used in the WACC determination for Chorus PQP1 price path in July 2021. The data used for DPRY 2022, in Table 3, is the same data used in the ID WACC determination published on 1 February 2022 applying to Chorus Limited, Enable Limited, Tuatahi and Northpower Fibre).[8]

12. When determining the WACC estimates for Chorus' price-quality path, we retrospectively estimated the historical debt premium estimates to calculate the five-year historical average. A summary of the data used and how we have applied our judgement in determining the debt premium for DPRYs 2018 to DPRY 2021 are described in the Cost of capital determination for Chorus' price quality path determination for PQP1.[9]

13. We have estimated a debt premium of 1.30% for DPRY 2022, based on the data in Table 4 below.[10] We note that the DPRY 2022 estimation period used data from 1 September 2020 to 31 August 2021 which was impacted by the Covid-19 pandemic and which had an impact on debt and equity markets, in particular airports and travel-related securities.

    13.1 We have had greatest regard to the category (a) and (c) bonds, which support a debt premium of approximately 1.30%. The Chorus (1.06%) and Vector (1.29%) debt premium estimates match the target credit rating (BBB), however these bonds have a remaining term to maturity of more than five years so we would expect a lower debt premium for a target maturity of five years. However, the Contact Energy (0.90%) and Wellington Airport (1.66%) bonds have a remaining term to maturity less than 5 years, so we would expect these debt premiums to be higher for a target maturity of five years. Overall, these bonds support an estimate of 1.30%.

    13.2 The estimated debt premiums for other issuers in bond categories (e) to (f) are not inconsistent with a debt premium around 1.30%, when consideration is given to the different credit ratings and terms to maturity.

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7 Commerce Commission, Fibre Input Methodologies Determination 2020 [2020] NZCC 21, 13 October 2020.

8 Commerce Commission, Cost of capital determination for Chorus' price quality path for PQP1, NZCC 8 [2021], 1 July 2021 and Commerce Commission, Cost of capital determination for Chorus, Enable, Tuatahi, and Northpower Fibre ID [2022] NZCC 1, 1 February 2022.

9 Commerce Commission, Cost of capital determination for Chorus' price quality path for PQP1, NZCC 8 [2021], 1 July 2021, paras 14-18.

10 Note that bond observations that have a remaining term to maturity exactly equal to the target (i.e., five years), and include multiple bonds analysed, have been interpolated between multiple bonds from the issuer to give an exact match to the target term to maturity.

13.3 The NSS debt premium estimate of 1.29% is consistent with our estimate of 1.30%.

Table 4: DPRY 2022 bond data

			Industry	Rating	Remaining term to maturity	Debt premium	
Determined debt premium			Fibre	BBB	5.0	1.30	
Category	**Issuer**	**Note ref.**	**Industry**	**Rating**	**Remaining term to maturity**	**Debt premium**	**Comment**
a	CHORUS LTD	1	Fibre	BBB	6.6	1.06	5 year debt premium would be lower
c	CONTACT ENERGY LTD	2	Other	BBB	3.5	0.90	5 year debt premium would be higher
c	VECTOR LTD	3	EDB/GPB	BBB	5.6	1.29	5 year debt premium would be lower
c	WELLINGTON INTL AIRPOI	4	Airport	BBB	4.3	1.66	5 year debt premium would be higher
e	AUCKLAND INTL AIRPORT	5	Airport	A-	3.6	0.98	BBB debt premium would be higher; 5 year debt premium would be higher
e	FONTERRA COOPERATIVE	6	Other	A-	4.7	0.95	BBB debt premium would be higher; 5 year debt premium would be higher
e	GENESIS ENERGY LTD	7	Other	BBB+	4.1	1.09	BBB debt premium would be higher; 5 year debt premium would be higher
e	MERCURY NZ LTD	8	Other	BBB+	6.5	1.03	BBB debt premium would be higher; 5 year debt premium would be lower
e	MERIDIAN ENERGY LIMITE	9	Other	BBB+	4.3	0.88	BBB debt premium would be higher; 5 year debt premium would be higher
e	SPARK FINANCE LTD	10	Telco	A-	5.0	0.70	BBB debt premium would be higher
f	CHRISTCHURCH INTL AIRP	11	Airport	BBB+	5.0	1.67	BBB debt premium would be higher
f	TRANSPOWER NEW ZEALA	12	Other	AA	5.0	0.63	BBB debt premium would be higher
Nelson-Siegel Svensson estimate					5.0	1.29	

Notes on bonds analysed

1 CNUNZ 1.98 12/02/27
2 CENNZ 3.55 08/15/24
3 VCTNZ 1.575 10/06/26
4 WIANZ 5 06/16/25
5 AIANZ 3.51 10/10/24
6 FCGNZ 4.15 11/14/25
7 GENEPO 5 04/03/25
8 MCYNZ 1.56 09/14/27
9 MERINZ 4.21 06/27/25
10 SPKNZ 3.37 03/07/24; SPKNZ 3.94 09/07/26
11 CHRINT 4.13 05/24/24; CHRINT 5.53 04/05/27
12 TPNZ 1.735 09/04/25; TPNZ 3.823 03/06/25; TPNZ 5.893 03/15/28

Changes in the risk-free rate and debt premium over time

14. The risk-free rate and the debt premium on bonds change over time. Changes in the risk-free rate and debt premium estimates are illustrated below. Figure 1 shows, as at 1 April 2022, changes over time in the:

14.1 five-year risk-free rate from our historical determinations in other regulated sectors;

14.2 three-year risk-free rate; and

14.3 debt premiums and five-year average debt premiums on bonds rated BBB with a term of five years from our historical debt premium determinations.

Figure 1: Changes in the five-year debt premiums and three-year risk-free rate over time