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Cost of capital determination for disclosure year 2025 for information disclosure regulation

For Transpower, gas distribution businesses and suppliers of specified airport services (with a June year-end)

[2024] NZCC 15

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Associated documents

Publication date	Reference	Title
27 June 2024	ISBN 978-1- 869457-90-7	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 2021 (Post-IM review version)
1 May 2024	ISSN 1178-2560	Cost of capital determination for disclosure year 2025 for information disclosure regulation – Electricity distribution businesses and Wellington International Airport [2024] NZCC 7
24 April 2024	ISSN 1178-2560	Cost of capital determination for Wellington International Airport Limited's 2024-2029 price setting event [2024] NZCC 6
13 December 2023	ISBN 978-1- 991085-69-6	Cost of capital topic paper, Part 4 Input Methodologies Review 2023 – Final decision
13 December 2023	ISSN 1178-2560	Airport Services Input Methodologies (IM Review 2023) Amendment Determination 2023 [2023] NZCC 34
1 August 2023	ISSN 1178-2560	Cost of capital determination for disclosure year 2024 for information disclosure regulation - For Transpower, gas distribution businesses and suppliers of specified airport services (with a June year-end) [2023] NZCC 20
1 May 2023	ISSN 1178-2560	Cost of capital determination for disclosure year 2024 for information disclosure regulation – Electricity distribution businesses and Wellington International Airport [2023] NZCC 8
17 January 2023	ISBN 978-1- 869457-90-7	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
2 August 2022	ISSN 1178-2560	Cost of capital determination for disclosure year 2023 for information disclosure regulation – For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2022] NZCC 28
3 May 2022	ISSN 1178-2560	Cost of capital determination for disclosure year 2023 for information disclosure regulation – For Electricity distribution businesses and Wellington International Airport [2022] NZCC 12

2 August 2021	ISSN 1178-2560	Cost of capital determination for disclosure year 2023 for information disclosure regulation— For Transpower, gas pipeline businesses and suppliers of specified airport services (with a
		June year-end)
30 April 2021	ISSN 1178-2560	Cost of capital determination for disclosure year 2022 – Electricity distribution businesses and Wellington International Airport [2021] NZCC 4
		<u> </u>
31 July 2020	ISSN 1178-2560	Cost of capital determination for disclosure year 2021 – For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2020] NZCC
		15
13 May 2020	ISSN 1178-2560	Cost of capital determination for disclosure year 2021 – Electricity distribution businesses and Wellington International Airport [2020] NZCC 11
25 September 2019	ISSN 1178-2560	Cost of capital determination for electricity distribution businesses' 2020-2025 default price-quality paths and Transpower New Zealand Limited's 2020-2025 individual price-quality path [2019] NZCC 12
31 July 2019	ISSN 1178-2560	Cost of capital determination for disclosure year 2020 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2019] NZCC 8
28 September 2012	ISBN 978-1- 869452-16-2	Electricity Distribution Services Input Methodologies Determination 2012 [2012] NZCC 26, as amended

Commerce Commission Wellington, New Zealand

WACC estimates for disclosure year 2025 for Transpower, GDBs (GasNet and Vector) and airports (AIAL and CIAL)

- 1. This cost of capital determination has been made under the Cost of Capital Input Methodologies (IMs). 1 2 3
- 2. This determination specifies the weighted average cost of capital (WACC) estimates that will apply for disclosure year 2025 for Transpower New Zealand Limited (Transpower), GasNet Limited's (GasNet) and Vector Limited's (Vector) gas distribution business (GDBs), and Auckland International Airport Limited (AIAL) and Christchurch International Airport Limited (CIAL) for information disclosure (ID) regulation. ⁴
- 3. The timing of our WACC determinations for ID regulation differs depending on the disclosure year of the regulated companies. Transpower, GasNet and Vector's gas distribution business, AIAL and CIAL have disclosure years of 1 July to 30 June, with disclosure year 2025 being the year ending 30 June 2025. ⁵
- 4. Vanilla and post-tax WACC estimates for disclosure year 2025 for Transpower, GDBs and airports are summarised in Table 1, Table 2, and Table 3 below, respectively.

Table 1: Summary of vanilla and post-tax WACC estimates for Transpower

	Vanilla WACC	Post-tax WACC
Mid-point	6.99%	6.26%
25 th percentile	6.31%	5.57%
67 th percentile	7.43%	6.70%
75 th percentile	7.67%	6.94%

Transpower Input Methodologies Determination [2012] NZCC 17 (as amended). An unofficial consolidated version incorporating amendments to the determination is <u>available on the Commission's</u> website.

Gas Distribution Services Input Methodologies Determination 2012 [2012] NZCC 27 (as amended). An unofficial consolidated version incorporating amendments to the determination is <u>available on the Commission's website</u>.

Commerce Act (Specified Airport Services Input Methodologies) Determination 2010, decision number 709 (as amended). An unofficial consolidated version incorporating amendments to the determination is available on the Commission's website.

⁴ Unless appears otherwise from the context, all references to GDBs in this determination mean GasNet and Vector, and all references to airports mean AIAL and CIAL.

We determine an ID WACC for Wellington International Airport Limited in April and for the other GDBs in October due to their different disclosure years.

Table 2: Summary of vanilla and post-tax WACC estimates for GasNet and Vector

	Vanilla WACC	Post-tax WACC
Mid-point	7.57%	6.83%
25 th percentile	6.86%	6.13%
67 th percentile	8.03%	7.29%
75 th percentile	8.27%	7.54%

Table 3: Summary of vanilla and post-tax WACC estimates for AIAL and CIAL

	Vanilla WACC	Post-tax WACC
Mid-point	8.63%	8.24%
Standard error	0.0169	0.0169

- 5. Further detail regarding the parameter values used to generate these WACC estimates is contained in the paragraphs below. The WACC estimates have been calculated as at 1 July 2024, which is the first day of disclosure year 2025.
- 6. This determination should be read together with our guidelines for WACC determinations under the cost of capital input methodologies. These guidelines form part of this determination. The guidelines explain our methodology for calculating WACC estimates, including:
 - 6.1 the formulas used (including for different WACC percentiles);
 - 6.2 the values for WACC parameters which are fixed under the IMs; and
 - 6.3 our methodology for determining the risk-free rate and average debt premium.
- 7. The Part 4 IMs Review 2023 resulted in changes to some fixed WACC parameters, including leverage, asset beta and equity beta. For Transpower and GDBs, these new parameters will apply for ID regulation from the commencement of disclosure year 2026, while for airports the changes have applied from 14 December 2023.

⁶ Commerce Commission, <u>Guidelines for WACC determinations under the cost of capital input</u> methodologies (pre-IM review version) (27 June 2024).

Commerce Commission, <u>Context and summary of Final decisions</u>, <u>Part 4 Input Methodologies Review</u> 2023 (December 2023).

Commerce Commission, <u>Airport Services Input Methodologies (IM Review 2023) Amendment Determination 2023</u> [2023] NZCC 34 (December 2023), clause 4(c)(iv).

Further details regarding the WACC estimates

WACC parameter values for Transpower, GDBs and airports

8. The parameter values used to generate the mid-point WACC estimates for disclosure year 2025 for Transpower, GDBs (GasNet and Vector) and airports (AIAL and CIAL) are summarised in Table 4 below.⁹

Table 4: Values used to calculate WACC estimates for Transpower, GDBs and airports*

Parameter	Transpower	GDBs (GasNet and Vector)	Airports (AIAL and CIAL)
Risk-free rate	4.64%	4.67%	4.64%
Average debt premium	1.39%	1.31%	1.10%
Leverage	42%	42%	23%
Asset beta	0.35	0.40	0.67
Equity beta	0.60	0.69	0.87
Tax adjusted market risk premium	7.0%	7.5%	7.0%
Average corporate tax rate	28%	28%	28%
Average investor tax rate	28%	28%	28%
Debt issuance costs	0.20%	0.25%	0.20%
Cost of debt	6.23%	6.23%	5.94%
Cost of equity	7.54%	8.53%	9.43%
Standard error of midpoint WACC estimate	0.0101	0.0105	0.0169
Mid-point vanilla WACC	6.99%	7.57%	8.63%
Mid-point post-tax WACC	6.26%	6.83%	8.24%

^{*}The numbers are rounded to two decimal points, except tax adjusted market risk premium and standard error of the mid-point WACC estimate

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

Risk-free rate for Transpower, GDBs and airports

- 9. 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 (and five years for airports).
- 10. Our estimate of the four-year risk-free rate is based on data reported by Bloomberg for the three-month period ending 30 June 2024 in respect of the April 2027, May 2028, and April 2029 maturity bonds.
- 11. Our estimate of the five-year risk-free rate is based on data reported by Bloomberg for the three-month period ending 30 June 2024 in respect of the May 2028, April 2029, and May 2030 maturity bonds.
- 12. The daily data reported by Bloomberg is linearly interpolated, annualised (to reflect the six-monthly payment of interest) and averaged to produce the estimate of a 4.67% interest rate on New Zealand government bonds with a four-year term to maturity, and a 4.64% interest rate on New Zealand government bonds with a five-year term to maturity, as estimated at 1 July 2024. 10

Average debt premium for Transpower

- 13. The average debt premium for Transpower of 1.39% is the average of the debt premium values for the current debt premium reference year (DPRY) and the four previous DPRYs, as shown in Table 5 below.
- 14. The DPRY for Transpower starts on 1 September and ends on 31 August.¹¹ DPRY 2024 is the current DPRY for Transpower as it contains the start of disclosure year 2025 (1 July 2024). The 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.

We interpolate between the two closest bonds surrounding a four or five-year remaining term. This requires taking the yields of the bonds with a remaining term immediately before and after the four or five-years term to maturity on that day. The target 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.

¹¹ For example, DPRY 2024 for Transpower is 1 September 2023 to 31 August 2024.

Table 5: Average debt premium for Transpower (%)

	DPRY 2020	DPRY 2021	DPRY 2022	DPRY 2023	DPRY 2024	Average
Debt						
premium	1.60	1.55	1.15	1.25	1.40	1.39

- 15. The debt premium values are taken from the following sources:
 - 15.1 The debt premium value for the 2020 DPRY was estimated in the ID WACC determination published on 13 May 2020 for electricity distribution businesses (EDBs) and Wellington International Airport Limited (WIAL).¹²
 - 15.2 The debt premium value for the 2021 DPRY was estimated in the ID WACC determination published on 30 April 2021 for EDBs and WIAL.¹³
 - 15.3 The debt premium value for the 2022 DPRY was estimated in the ID WACC determination published on 3 May 2022 for EDBs and WIAL.¹⁴
 - 15.4 The debt premium value for the 2023 DPRY was estimated in the ID WACC determination published on 1 May 2023 for EDBs and WIAL.¹⁵
 - 15.5 The debt premium value for the 2024 DPRY was estimated in the ID WACC determination published on 1 May 2024 for EDBs and WIAL.¹⁶

WACC range and 67th percentile estimate for Transpower

- 16. In addition to the mid-point estimate, we are also required to determine a WACC range and 67th percentile estimate for Transpower.
- 17. The WACC range means the values falling between the 25th percentile and 75th percentile, inclusive of the mid-point estimate of WACC. The methodology for

¹² Commerce Commission, <u>Cost of capital determination for disclosure year 2021 for information disclosure regulation</u>. Electricity distribution businesses and Wellington International Airport [2020] NZCC 11.

¹³ Commerce Commission, <u>Cost of capital determination for disclosure year 2022 for information disclosure regulation</u>. <u>Electricity distribution businesses and Wellington International Airport</u> [2021] NZCC 4.

¹⁴ Commerce Commission, <u>Cost of capital determination for disclosure year 2023 for information disclosure regulation. Electricity distribution businesses and Wellington International Airport [2022] NZCC 12.</u>

¹⁵ Commerce Commission, <u>Cost of capital determination for disclosure year 2024 for information disclosure regulation</u>. <u>Electricity distribution businesses and Wellington International Airport</u> [2023] NZCC 8.

Commerce Commission, Cost of capital determination for disclosure year 2025 for information disclosure regulation. Electricity distribution businesses and Wellington International Airport [2024] NZCC 7.

estimating different WACC percentiles is set out in clause 2.4.5 of the Transpower IMs. ¹⁷

Average debt premium for GasNet and Vector

- 18. The average debt premium for GDBs of 1.31% is the average of the debt premium values for the current DPRY and the four previous DPRYs, as shown in Table 6 below.
- 19. The DPRY for GasNet and Vector starts on 1 March and ends on 28 February. 18 DPRY 2025 is the current DPRY for GasNet and Vector as it contains the start of disclosure year 2025 (1 July 2024). The 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.

Table 6: Average debt premium for GasNet and Vector (%)

	DPRY	DPRY	DPRY	DPRY	DPRY	Avorago
	2021	2022	2023	2024	2025	Average
Debt	1.45	1.35	1.10	1.45	1.20	1.31
premium	1.43	1.55	1.10	1.43	1.20	1.51

- 20. The debt premium values are taken from the following sources:
 - 20.1 The debt premium value for the 2021 DPRY was estimated in the ID WACC determination published on 31 July 2020 for Transpower, GDBs and airports.¹⁹
 - 20.2 The debt premium value for the 2022 DPRY was estimated in the ID WACC determination published on 2 August 2021 for Transpower, GDBs and airports.²⁰
 - 20.3 The debt premium value for the 2023 DPRY was estimated in the WACC determination for the third price-quality path for the gas pipeline businesses published on 1 April 2022.²¹

Transpower Input Methodologies Determination [2012] NZCC 17 (as amended). The same methodology applies to both vanilla and post-tax WACC estimates. The mid-point estimate of WACC is treated as the 50th percentile. The required estimates are set out in Table 1.

¹⁸ For example, DPRY 2025 for GasNet and Vector is 1 March 2024 to 28 February 2025.

Commerce Commission, Cost of capital determination for disclosure year 2021 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2020] NZCC 15.

Commerce Commission, Cost of capital determination for disclosure year 2022 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2021] NZCC 10.

²¹ Commerce Commission, <u>Cost of capital determination for gas pipeline businesses' 2022-2026/2022-2027 default price-quality path</u> [2022] NZCC 10. In this determination we had two sets of WACC estimates – one reflecting a five-year period and the other reflecting a four-year period. We did this because we had

- 20.4 The debt premium value for the 2024 DPRY was estimated in the ID WACC determination published on 1 August 2023 for Transpower, GDBs and airports.²²
- 21. We have estimated a debt premium of 1.20% for GasNet's and Vector's 2025 DPRY based on the data in Table 7 below.
 - 21.1 We have had greatest regard to the category (a) bonds, which support a debt premium of approximately 1.20%, which matches the target sector and credit rating, with a shorter remaining term to maturity (4.2 years).
 - 21.2 The estimated debt premium for other issuers in bond categories (b) to (e) are not inconsistent with a debt premium around 1.20%, when consideration is given to the different credit ratings and term to maturity (refer to the commentary column of Table 7 for details).
 - 21.3 The Nelson-Siegel-Svennson (NSS) estimate of the debt premium of 1.21% also supports our estimate of 1.20%.

not yet produced our final decision on the term of the regulatory period for the GPB default price path (DPP).

Commerce Commission, Cost of capital determination for disclosure year 2024 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2023] NZCC 20.

Table 7: Debt premium estimate for GasNet and Vector, DPRY 2025

	Sector	100% Govt owned	Bond credit rating	Remaining term to maturity (years)	Debt premium %
Benchmark bond	EDB/GPB	No	BBB+	5	1.20

Bond category	Issuer	Sector	100% Govt owned	Bond credit rating	Remaining term to maturity (years)	Debt premium %	Comments
a	Vector Limited	EDB/GPB	No	BBB+	4.2	1.14	5-year debt premium would be higher.
b	Genesis Energy Limited	Other	No	BBB+	5.3	1.20	5-year debt premium would be lower.
b	Mercury NZ Limited	Other	No	BBB+	5.0	1.16	Credit rating and term are an exact match.
b	Meridian Energy Limited	Other	No	BBB+	5.0	1.10	Credit rating and term are an exact match.
d	Auckland International Airport Limited	Airport	No	Α-	5.1	0.91	BBB+ debt premium would be higher; 5-year debt premium would be lower.
d	Chorus Limited	Fibre	No	BBB	5.0	1.22	BBB+ debt premium would be lower.
d	Contact Energy Limited	Other	No	BBB	5.0	1.08	BBB+ debt premium would be lower.
d	Fonterra Co- operative Group Limited	Other	No	A-	2.2	0.88	BBB+ debt premium would be higher; 5-year debt premium would be higher.
d	Spark Finance Limited	Telco	No	A-	5.1	0.87	BBB+ debt premium would be higher; 5-year debt premium would be lower.
d	Wellington International Airport Limited	Airport	No	BBB	3.0	1.43	BBB+ debt premium would be lower; 5-year debt premium would be higher.
е	Christchurch International Airport Limited	Airport	Yes	A-	4.7	1.12	BBB+ debt premium would be higher; 5-year debt premium would be higher.
е	Transpower New Zealand Limited	Other	Yes	AA-	4.5	0.60	BBB+ debt premium would be higher; 5-year debt premium would be higher.

Notes on	bonds analysed
1	VCTNZ 3.69 11/26/27
2	GENEPO 3.65 12/20/28
3	MCYNZ 5.64 06/19/28; MCYNZ 1.56 09/14/27; MCYNZ 1.917 10/09/30
4	MERINZ 5.91 09/20/28
5	AIANZ 5.29 11/17/28
6	CNUNZ 1.98 12/02/27; CNUNZ 2.51 12/02/30
7	CENNZ 5.82 04/11/28; CENNZ 3.55 08/15/24; CENNZ 5.62 04/06/29
8	FCGNZ 4.15 11/14/25
9	SPKNZ 4.37 09/29/28
10	WIANZ 2 1/2 08/14/26
11	CHRINT 5.18 05/19/28
12	TPNZ 5.893 03/15/28

WACC range and 67th percentile estimate for GasNet and Vector

- 22. In addition to the mid-point estimate, we are also required to determine a WACC range and 67th percentile estimate for the GDBs.
- 23. The WACC range means the values falling between the 25th percentile and 75th percentile, inclusive of the mid-point estimate of WACC. The methodology for estimating different WACC percentiles is set out in clause 2.4.5 of the Gas Distribution Services IMs. ²³

Average debt premium for AIAL and CIAL

- 24. The average debt premium for Airports of 1.10% is the average of the debt premium values for the current DPRY and the four previous DPRYs, as shown in Table 8 below.
- 25. The DPRY for AIAL and CIAL starts on 1 July and ends on 30 June.²⁴ DPRY 2025 is the current DPRY for AIAL and CIAL as it contains the start of disclosure year 2025 (1 July 2024). The 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.

Table 8: Average debt premium for AIAL and CIAL (%)

	DPRY	DPRY	DPRY	DPRY	DPRY	Avorago
	2021	2022	2023	2024	2025	Average
Debt	1.30	1.10	1.00	1.20	0.90	1.10
premium	1.50	1.10	1.00	1.20	0.50	1.10

- 26. The debt premium values are taken from the following sources:
 - 26.1 The debt premium value for the 2021 DPRY was estimated in the ID WACC determination published on 31 July 2020 for Transpower, GDBs and Airports.²⁵
 - 26.2 The debt premium value for the 2022 DPRY was estimated in the ID WACC determination published on 2 August 2021 for Transpower, GDBs and Airports.²⁶

Gas Distribution Services Input Methodologies Determination 2012 [2012] NZCC 27 (as amended). The same methodology applies to both vanilla and post-tax WACC estimates. The mid-point estimate of WACC is treated as the 50th percentile. The required estimates are set out in Table 1.

For example, DPRY 2025 for AIAL and CIAL is 1 July 2024 to 30 June 2025.

²⁵ Commerce Commission, <u>Cost of capital determination for disclosure year 2021 for information disclosure regulation</u>. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a <u>June year-end</u>) [2020] NZCC 15.

Commerce Commission, Cost of capital determination for disclosure year 2022 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2021] NZCC 10.

- 26.3 The debt premium value for the 2023 DPRY was estimated in the ID WACC determination published on 2 August 2022 for Transpower, GDBs and Airports.²⁷
- 26.4 The debt premium value for the 2024 DPRY was estimated in the ID WACC determination published on 1 August 2023 for Transpower, GDBs and Airports.²⁸
- 27. We have estimated a debt premium of 0.90% for the 2025 DPRY based on the data in Table 9 below.
 - 27.1 We have had greatest regard to the category (a) bonds, which support a debt premium of approximately 0.90%, which matches the target sector and credit rating, with a very similar remaining term to maturity (4.9 years).
 - 27.2 The estimated debt premium for other issuers in bond categories (b) to (e) are not inconsistent with a debt premium around 0.90%, when consideration is given to the different credit ratings and term to maturity (refer to the commentary column of Table 9 for details).
 - 27.3 The Nelson-Siegel-Svennson (NSS) estimate of the debt premium of 0.91% also supports our estimate of 0.90%.

Commerce Commission, Cost of capital determination for disclosure year 2023 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2022] NZCC 28.

Commerce Commission, Cost of capital determination for disclosure year 2024 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2023] NZCC 20.

Table 9: Debt premium estimate for AIAL and CIAL, DPRY 2025

	Sector	100% Govt owned	Bond credit rating	Remaining term to maturity (years)	Debt premium
Benchmark bond	Airport	No	Α-	5.0	0.90

Bond			100% Govt	Bond credit	Remaining term	Debt	
category	Issuer	Sector	owned	rating	to maturity (years)	premium	Comments
a	Auckland International Airport Limited	Airport	No	A-	4.9	0.85	5-year debt premium would be higher.
b	Fonterra Co-operative Group Limited	Other	No	Α-	1.9	0.76	5-year debt premium would be higher.
b	Spark Finance Limited	Telco	No	A-	4.8	0.72	5-year debt premium would be higher.
С	Wellington International Airport Limited	Airport	No	ВВВ	2.6	1.30	A- debt premium would be lower; 5-year debt premium would be higher.
d	Chorus Limited	Fibre	No	BBB	3.9	1.00	A- debt premium would be lower; 5-year debt premium would be higher.
d	Contact Energy Limited	Other	No	BBB	5.3	0.88	A- debt premium would be lower; 5-year debt premium would be lower.
d	Genesis Energy Limited	Other	No	BBB+	5.0	1.03	A- debt premium would be lower.
d	Mercury NZ Limited	Other	No	BBB+	4.5	0.97	A- debt premium would be lower; 5-year debt premium would be higher.
d	Meridian Energy Limited	Other	No	BBB+	4.7	0.96	A- debt premium would be lower; 5-year debt premium would be higher.
d	Vector Limited	EDB/GPB	No	BBB+	3.9	1.01	A- debt premium would be lower; 5-year debt premium would be higher.
е	Christchurch International Airport Limited	Airport	Yes	A-	4.4	0.98	5-year debt premium would be higher.
е	Transpower New Zealand Limited	Other	Yes	AA-	4.2	0.51	A- debt premium would be higher; 5-year debt premium would be higher.

Notes on bonds analysed			
1	AIANZ 5.29 11/17/28		
2	FCGNZ 4.15 11/14/25		
3	SPKNZ 4.37 09/29/28		
4	WIANZ 2 1/2 08/14/26		
5	CNUNZ 1.98 12/02/27		
6	CENNZ 5.62 04/06/29		
7	GENEPO 3.65 12/20/28		
8	MCYNZ 5.64 06/19/28		
9	MERINZ 5.91 09/20/28		
10	VCTNZ 3.69 11/26/27		
11	CHRINT 5.18 05/19/28		
12	TPNZ 5.893 03/15/28		

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

- 28. The cost of capital input methodologies for regulated services (including for Transpower, GDBs and airports) reflect that both the risk-free rate and the debt premium on bonds change over time. Figure 1 shows, as at 1 July 2024, changes over time in:
 - 28.1 The four-year risk-free rate;
 - 28.2 The five-year risk-free rate;
 - 28.3 The estimated debt premium on bonds rated BBB+ with a remaining term to maturity of five years; and
 - 28.4 The estimated debt premium on bonds rated A- with a remaining term to maturity of five years.

Figure 1: Changes in the risk-free rates and estimated debt premiums over time

