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# 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

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### Associated documents

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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 – Electricity distribution businesses and Wellington International Airport [2022] NZCC 12
2 August 2021	ISSN 1178-2560	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
30 April 2021	ISSN 1178-2560	Cost of capital determination for disclosure year 2022 for information disclosure regulation – Electricity distribution businesses and Wellington International Airport [2021] NZCC 4
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 for information disclosure regulation – 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
30 April 2019	ISSN 1178-2560	Cost of capital determination for disclosure year 2020 for information disclosure regulation – Electricity distribution businesses and Wellington International Airport [2019] NZCC 7
31 July 2018	ISSN 1178-2560	Cost of capital determination for disclosure year 2019 – For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2018] NZCC 11
30 April 2018	ISSN 1178-2560	Cost of capital determination for disclosure year 2019 – Electricity distribution businesses and Wellington International Airport [2018] NZCC 7
28 September 2012	ISSN 1178-2560	Gas Distribution Services Input Methodologies Determination 2012 (consolidated September 2022)
29 June 2012	ISSN 1178-2560	Transpower Input Methodologies Determination (consolidated January 2020)
22 December 2010	ISSN 1178-2560	Commerce Act (Specified Airport Services Input Methodologies) Determination 2010 (consolidated December 2016)

Commerce Commission Wellington, New Zealand

# WACC estimates for disclosure year 2024 for Transpower, GDBs (GasNet and Vector) and airports (AIAL and CIAL)<sup>1</sup>

- 1. This cost of capital determination has been made under the Cost of Capital Input Methodologies (IMs).<sup>2 3 4</sup>
- 2. This determination specifies the weighted average cost of capital (WACC) estimates that will apply for disclosure year 2024 for Transpower New Zealand Limited (Transpower), GasNet Limited's (GasNet) and Vector Limited's (Vector) gas distribution business (GDB), and Auckland International Airport Limited (AIAL) and Christchurch International Airport limited for information disclosure (ID) regulation.
- 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 2024 being the year ending 30 June 2024. 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.
- 4. Vanilla and post-tax WACC estimates for disclosure year 2024 for Transpower, GDBs, and airports are summarised in Table 1, Table 2 and Table 3 below, respectively.

	Vanilla WACC	Post-tax WACC
Mid-point	6.73%	6.03%
25 <sup>th</sup> percentile	6.05%	5.35%
67 <sup>th</sup> percentile	7.17%	6.47%
75 <sup>th</sup> percentile	7.41%	6.71%

#### Table 1: Summary of vanilla and post-tax WACC estimates for Transpower (%)

<sup>&</sup>lt;sup>1</sup> Unless appears otherwise from the context all references to GDBs in this determination mean GasNet Limited and Vector Limited, and all references to airports mean Auckland International Airport Limited and Christchurch International Airport Limited.

<sup>&</sup>lt;sup>2</sup> 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> <u>website</u>.

<sup>&</sup>lt;sup>3</sup> Gas Distribution Services Input Methodologies Determination 2012 [2012] NZCC 27 (as amended). An unofficial consolidated version incorporating amendments to the determination <u>is available on the Commission's website</u>.

<sup>&</sup>lt;sup>4</sup> Commerce Act (Specified Airport Services Input Methodologies) Determination 2010, decision number 709 (as amended). An unofficial consolidated version incorporating amendments to the determination is <u>available on the Commission's website</u>.

	Vanilla WACC	Post-tax WACC
Mid-point	7.36%	6.65%
25 <sup>th</sup> percentile	6.65%	5.94%
67 <sup>th</sup> percentile	7.82%	7.11%
75 <sup>th</sup> percentile	8.06%	7.36%

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

#### Table 3: Summary of vanilla and post-tax WACC estimates for AIAL and CIAL (%)

	Vanilla WACC	Post-tax WACC
Mid-point	7.79%	7.49%
Standard error	0.0146	0.0146

- 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 2023, which is the first day of disclosure year 2024.
- 6. This determination should be read together with our guidelines for WACC determinations under the cost of capital input methodologies.<sup>5</sup> 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 input methodologies; and
  - 6.3 our methodology for determining the risk-free rate and average debt premium.

<sup>&</sup>lt;sup>5</sup> Commerce Commission, <u>Guidelines for WACC determinations under the cost of capital input</u> <u>methodologies</u> (17 January 2023).

#### Further details regarding the WACC estimates

# WACC parameter values for Transpower, GDBs (GasNet and Vector) and Airports (AIAL and CIAL)

7. The parameter values used to generate the mid-point WACC estimates for disclosure year 2024 for Transpower, GDBs (GasNet and Vector) and airports (AIAL and CIAL) are summarised in Table 4 below.<sup>6</sup>

Parameter	Transpower	GDBs (GasNet and Vector)	Airports (AIAL and CIAL)
Risk-free rate	4.31%	4.37%	4.31%
Average debt premium	1.43%	1.40%	1.18%
Leverage	42%	42%	19%
Asset beta	0.35	0.40	0.60
Equity beta	0.60	0.69	0.74
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	0.2%	0.25%	0.2%
Cost of debt	5.94%	6.02%	5.69%
Cost of equity	7.30%	8.32%	8.28%
Standard error of mid-point WACC estimate	0.0101	0.0105	0.0146
Mid-point vanilla WACC	6.73%	7.36%	7.79%
Mid-point post-tax WACC	6.03%	6.65%	7.49%

Table 4: Values used to calculate WACC estimates for Transpower, GDBs and Airports
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\*The numbers are rounded to two decimal points, except for the tax adjusted market risk premium and standard error of the mid-point WACC estimate.

<sup>&</sup>lt;sup>6</sup> 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**

- 8. 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).
- 9. Our estimate of the four-year risk-free rate is based on data reported by Bloomberg for the three-month period ending June 2023 in respect of the May 2026, April 2027 and May 2028 maturity bonds.
- 10. Our estimate of the five-year risk-free rate is based on data reported by Bloomberg for the three-month period ending June 2023 in respect of the April 2027, May 2028 and April 2029 maturity bonds.
- 11. 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 4.37% interest rate on New Zealand government bonds with a four-year term to maturity, and a 4.31% interest rate on New Zealand government bonds with a five-year term to maturity, as estimated at 1 July 2023.<sup>7</sup>

#### Average debt premium for Transpower

- 12. The average debt premium for Transpower of 1.43% 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.
- 13. The DPRY for Transpower starts on 1 September and ends on 31 August.<sup>8</sup> DPRY 2023 is the current DPRY for Transpower as it contains the start of disclosure year 2024 (1 July 2023). 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.

	DPRY 2019	DPRY 2020	DPRY 2021	DPRY 2022	DPRY 2023	Average
Debt premium	1.60	1.60	1.55	1.15	1.25	1.43

Table 5: Average debt premium for Transpower (%)

<sup>&</sup>lt;sup>7</sup> If we were estimating a five-year risk-free rate, for example, we interpolate between the two closest bonds surrounding a 5-year remaining term. This requires taking the yields of the bonds with a remaining term immediately before and after 5 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.

<sup>&</sup>lt;sup>8</sup> For example, DPRY 2023 for Transpower is 1 September 2022 to 31 August 2023.

- 14. The debt premium values are taken from the following sources:
  - 14.1 The debt premium value for the 2019 DPRY was estimated in the *Cost of capital determination for disclosure year 2020 for information disclosure regulation Electricity distribution businesses and Wellington International Airport [2019]* NZCC 7 (30 April 2019).<sup>9</sup>
  - 14.2 The debt premium value for the 2020 DPRY was estimated in the *Cost of capital determination for disclosure year 2021 for information disclosure regulation Electricity distribution businesses and Wellington International Airport [2020]* NZCC 11 (13 May 2020).<sup>10</sup>
  - 14.3 The debt premium value for the 2021 DPRY was estimated in the *Cost of capital determination for disclosure year 2022 for information disclosure regulation Electricity distribution businesses and Wellington International Airport [2021]* NZCC 4 (30 Apr 2021).<sup>11</sup>
  - 14.4 The debt premium value for the 2022 DPRY was estimated in the *Cost of capital determination for disclosure year 2023 for information disclosure regulation Electricity distribution businesses and Wellington International Airport [2022]* NZCC 12 (3 May 2022).<sup>12</sup>
  - 14.5 The debt premium value for the 2023 DPRY was estimated in the *Cost of capital determination for disclosure year 2024 for information disclosure regulation Electricity distribution businesses and Wellington International Airport [2023]* NZCC 8 (1 May 2023).<sup>13</sup>

#### WACC range and 67<sup>th</sup> percentile estimate for Transpower

- 15. In addition to the mid-point estimate, we are also required to determine a WACC range and 67th percentile estimate for Transpower.
- 16. 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 Transpower IMs.<sup>14</sup>

<sup>&</sup>lt;sup>9</sup> <u>Cost of capital determination for disclosure year 2020 for information disclosure regulation. Electricity</u> <u>distribution businesses and Wellington International Airport [2019] NZCC 7.</u>

<sup>&</sup>lt;sup>10</sup> <u>Cost of capital determination for disclosure year 2021 for information disclosure regulation. Electricity</u> <u>distribution businesses and Wellington International Airport [2020] NZCC 11.</u>

<sup>&</sup>lt;sup>11</sup> <u>Cost of capital determination for disclosure year 2022 for information disclosure regulation. Electricity</u> <u>distribution businesses and Wellington International Airport [2021] NZCC 4.</u>

<sup>&</sup>lt;sup>12</sup> Cost of capital determination for disclosure year 2023 for information disclosure regulation. Electricity distribution businesses and Wellington International Airport [2022] NZCC 12.

<sup>&</sup>lt;sup>13</sup> <u>Cost of capital determination for disclosure year 2024 for information disclosure regulation. Electricity distribution businesses and Wellington International Airport [2023] NZCC 8.</u>

<sup>&</sup>lt;sup>14</sup> 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> <u>website</u>. 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.

#### Average debt premium for GasNet and Vector

- 17. The average debt premium for GDBs of 1.40 is the average of the debt premium values for the current DPRY and the four previous DPRYs, as shown in Table 6 below.
- 18. The DPRY for GasNet and Vector starts on 1 March and ends on 28 February.<sup>15</sup> DPRY 2024 is the current DPRY for GasNet and Vector as it contains the start of disclosure year 2024 (1 July 2023). 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.

	DPRY 2020	DPRY 2021	DPRY 2022	DPRY 2023	DPRY 2024	Average
Debt premium	1.65	1.45	1.35	1.10	1.45	1.40

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

- 19. The debt premium values are taken from the following sources:
  - 19.1 The debt premium value for DPRY 2020 was estimated in the *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 (31 July 2020).<sup>16</sup>
  - 19.2 The debt premium value for DPRY 2021 was estimated in the *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 (2 August 2021).<sup>17</sup>
  - 19.3 The debt premium value for DPRY 2022 was estimated in the *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 (2 August 2022).<sup>18</sup>

<sup>&</sup>lt;sup>15</sup> For example, DPRY 2024 for GasNet and Vector is 1 March 2023 to 28 February 2024.

<sup>&</sup>lt;sup>16</sup> <u>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.</u>

<sup>&</sup>lt;sup>17</sup> <u>Cost of capital determination for disclosure year 2022 for information disclosure regulation for</u> <u>Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end)</u> [2021] NZCC 10.

<sup>&</sup>lt;sup>18</sup> <u>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.</u>

- 19.4 The debt premium value for DPRY 2023 was estimated in the *Cost of capital determination for gas pipeline businesses' 2022-2026/2022-2027 default price quality path* [2022] NZCC 10 (1 April 2022).<sup>19</sup>
- 20. We have estimated a debt premium of 1.45% for GDB DPRY 2024, based on the data in Table 7 below.
  - 20.1 We have had the greatest regard to the category (a) bond,<sup>20</sup> which supports a debt premium of approximately 1.45%, which matches the target sector and credit rating, with a very similar remaining term to maturity (5.2 years).
  - 20.2 The estimated debt premiums for other issuers in bond categories (b) to (e) are not inconsistent with a debt premium around 1.45%, when consideration is given to the different credit ratings and terms to maturity (refer to the commentary column of Table 7 for further details).
  - 20.3 The Nelson-Siegel-Svennson (NSS) estimate of the debt premium of 1.45% also lends support to our estimate of 1.45%.

<sup>&</sup>lt;sup>19</sup> <u>Cost of capital determination for gas pipeline businesses' 2022-2026/2022-2027 default price-quality path</u> [2022] NZCC 10.

<sup>&</sup>lt;sup>20</sup> Gas Distribution Services Input Methodologies Determination 2012 (Consolidated September 2022), clauses 2.4.4(7). This clause provides a hierarchy of which qualifying bonds we must give the greatest regard to, based on these bonds' characteristics such as rating, or the issuer. We have categorised the bonds as categories (a) through (e), in line with subclauses (a) through (e) of clause 2.4.4(7).

### Table 7 – Debt premium estimate for GasNet and Vector DPRY 2024

Bond category	Issuer	Sector	100% Govt owned	Bond credit rating	Remaining term to maturity (years)	Debt premium	Comments
а	Vector Limited	EDB/GDB	No	BBB+	5.20	1.45	5-year debt premium would be lower.
b	Genesis Energy Limited	Other	No	BBB+	5.00	1.46	Credit rating and term are an exact match.
b	Mercury NZ Limited	Other	No	BBB+	5.00	1.35	Credit rating and term are an exact match.
b	Meridian Energy Limited	Other	No	BBB+	2.80	1.20	5-year debt premium would be higher.
d	Auckland International Airport Limited	Airport	No	A-	4.20	1.10	BBB+ debt premium would be higher; 5-year debt premium would be higher.
d	Chorus Limited	Fibre	No	BBB	5.30	1.40	BBB+ debt premium would be lower; 5-year debt premium would be lower.
d	Contact Energy Limited	Other	No	BBB	2.00	1.09	BBB+ debt premium would be lower; 5-year debt premium would be higher.
d	Fonterra Co-operative Group Limited	Other	No	A-	3.20	1.12	BBB+ debt premium would be higher; 5-year debt premium would be higher.
d	Spark Finance Limited	Telco	No	A-	4.00	1.01	BBB+ debt premium would be higher; 5-year debt premium would be higher.
d	Wellington International Airport Limited	Airport	No	BBB	4.00	1.64	BBB+ debt premium would be lower; 5-year debt premium would be higher.
е	Christchurch International Airport Limited	Airport	Yes	A-	4.60	1.43	BBB+ debt premium would be higher; 5-year debt premium would be higher.
е	Transpower New Zealand Limited	Other	Yes	AA	5.00	0.84	BBB+ debt premium would be higher.
NSS Estim	ate	EDB/GDB	No	BBB+	5.00	1.45	Our NSS estimate of the benchmark bond

Notes	on bonds analysed
1	VCTNZ 3.69 11/26/27
2	GENEPO 5 04/03/25; GENEPO 4.17 03/14/28; GENEPO 3.65 12/20/28
3	MCYNZ 1.56 09/14/27; MCYNZ 2.16 09/29/26; MCYNZ 1.917 10/09/30
4	MERINZ 4.21 06/27/25
5	AIANZ 3.29 11/17/26
6	CNUNZ 1.98 12/02/27
7	CENNZ 3.55 08/15/24
8	FCGNZ 4.15 11/14/25
9	SPKNZ 3.94 09/07/26
10	WIANZ 2 1/2 08/14/26
11	CHRINT 5.53 04/05/27
12	TPNZ 2.047 09/08/26; TPNZ 5.893 03/15/28

#### WACC range and 67<sup>th</sup> percentile estimate for GasNet and Vector

- 21. In addition to the mid-point estimate, we are also required to determine a WACC range and 67th percentile estimate for each GDB.
- 22. 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.<sup>21</sup>

#### Average debt premium for AIAL and CIAL

- 23. The average debt premium for Airports of 1.18% is the average of the debt premium values for the current DPRY and the four previous DPRYs, as shown in Table 8 below. DPRY 2024 is the current DPRY year for AIAL and CIAL.
- 24. The DPRY for AIAL and CIAL starts on 1 July and ends on 30 June.<sup>22</sup> DPRY 2024 is the current DPRY for AIAL and CIAL as it contains the start of disclosure year 2024 (1 July 2023). 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.
- 25. The debt premium values for the 2020 to 2023 DPRYs are the same debt premium values that we previously determined for AIAL and CIAL from the following sources:
  - 25.1 The debt premium value for the 2020 DPRY was estimated in the *Cost of capital determination for disclosure 2020 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end)* [2019] NZCC 8 (31 July 2019).<sup>23</sup>
  - 25.2 The debt premium value for the 2021 DPRY was estimated in the *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 (31 July 2020).<sup>24</sup>
  - 25.3 The debt premium value for the 2022 DPRY was estimated in the *Cost of capital determination for disclosure year 2022 for information disclosure*

<sup>&</sup>lt;sup>21</sup> Gas Distribution Services Input Methodologies Determination 2012 [2012] NZCC 27 (as amended). An unofficial consolidated version incorporating amendments to the determination <u>is available on the Commission's website</u>. 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.

<sup>&</sup>lt;sup>22</sup> For example, DPRY 2024 for AIAL and CIAL is 1 July 2023 to 30 June 2024.

<sup>&</sup>lt;sup>23</sup> <u>Cost of capital determination for disclosure 2020 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2019] NZCC 8 (31 July 2019).</u>

<sup>&</sup>lt;sup>24</sup> 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 (31 July 2020).

regulation for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2021] NZCC 10 (2 August 2021).<sup>25</sup>

25.4 The debt premium value for the 2023 DPRY was estimated in the *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 (2 August 2022).<sup>26</sup>

	DPRY 2020	DPRY 2021	DPRY 2022	DPRY 2023	DPRY 2024	Average
Debt premium	1.30	1.30	1.10	1.00	1.20	1.18

Table 8: Average debt premium for	Auckland and Christchurch Airports (%)
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- 26. We have estimated a debt premium of 1.20%, for DPRY 2024 based on the data in Table 9 below.<sup>27</sup>
- 27. We have had greatest regard to the category (a) Auckland International Airport bond, <sup>28</sup> which supports a debt premium of 1.20%. The only category (a) bond matches the target credit rating (A-)<sup>29</sup> and has a 5.2 year term to maturity so we would expect a similar debt premium if the term to maturity was 5 years (refer to Table 9 below for further commentary).
- 28. The category (b) bonds match the target credit rating (A-). One has a remaining term to maturity of 2.9 years with a debt premium of 1.12%, which we would expect to be lower than a bond with the target remaining term to maturity of 5 years. The other category (b) bond does match the credit rating and remaining term to maturity, with a debt premium of 1.13%. Although we have given less regard to these bonds as they are not part of the same sector, we note that these debt premiums are not

<sup>&</sup>lt;sup>25</sup> <u>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 (2 August 2021).</u>

<sup>&</sup>lt;sup>26</sup> <u>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 (2 August 2022).</u>

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.

<sup>&</sup>lt;sup>28</sup> Commerce Act (Specified Airport Services Input Methodologies) Determination 2010, decision number 709 (as amended), clause 5.4(7). This clause provides a hierarchy of which qualifying bonds we must give the greatest regard to, based on these bonds' characteristics such as rating, or the issuer. We have categorised the bonds as categories (a) through (e), in line with subclauses (a) through (e) of clause 5.4(7).

<sup>&</sup>lt;sup>29</sup> In line with the credit rating of the qualifying bonds which we must give the highest regard to, as per clause 5.4(7) of the IMs.

inconsistent with a debt premium of 1.20% for AIAL and CIAL (refer to Table 9 for further commentary).

29. The NSS estimate of the debt premium of 1.25% also lends support to our estimate of 1.20%.

Bond category	lssuer	Sector	100% Govt owned	Bond credit rating	Remaining term to maturity (years)	Debt premium	Comment
а	AUCKLAND INTL AIRPORT	Airport	No	A-	5.2	1.18	5-year debt premium would be lower
b	FONTERRA COOPERATIVE G	Other	No	A-	2.9	1.12	5-year debt premium would be higher
b	SPARK FINANCE LTD	Telco	No	A-	5.0	1.13	Credit rating and term are an exact match
С	WELLINGTON INTL AIRPOR	Airport	No	BBB	3.6	1.65	A- debt premium would be lower; 5-year debt premium would be higher
d	CHORUS LTD	Fibre	No	BBB	4.9	1.41	A- debt premium would be lower; 5-year debt premium would be higher
d	CONTACT ENERGY LTD	Other	No	BBB	5.2	1.44	A- debt premium would be lower; 5-year debt premium would be lower
d	GENESIS ENERGY LTD	Other	No	BBB+	5.0	1.44	A- debt premium would be lower
d	MERCURY NZ LTD	Other	No	BBB+	5.0	1.39	A- debt premium would be lower
d	MERIDIAN ENERGY LIMITE	Other	No	BBB+	2.5	1.21	A- debt premium would be lower; 5-year debt premium would be higher
d	VECTOR LTD	EDB/GDB	No	BBB+	4.9	1.45	A- debt premium would be lower; 5-year debt premium would be higher
е	CHRISTCHURCH INTL AIRP	Airport	Yes	A-	5.4	1.37	5-year debt premium would be lower
е	TRANSPOWER NEW ZEALAND	Other	Yes	AA	5.2	0.82	A- debt premium would be higher: 5-year debt premium would be lower
NSS Estim	ate	Airport	No	A-	5.0	1.25	Our NSS estimate of the benchmark bond

Table 9: Debt premium estimate for AIAL and CIAL DPRY 2024

Notes	Notes on bonds analysed		
1	AIANZ 5.67 05/09/28		
2	FCGNZ 4.15 11/14/25		
3	SPKNZ 3.94 09/07/26; SPKNZ 4.37 09/29/28		
4	WIANZ 2 1/2 08/14/26		
5	CNUNZ 1.98 12/02/27		
6	CENNZ 5.82 04/11/28		
7	GENEPO 4.17 03/14/28; GENEPO 5 04/03/25; GENEPO 3.65 12/20/28		
8	MCYNZ 1.56 09/14/27; MCYNZ 2.16 09/29/26; MCYNZ 1.917 10/09/30		
9	MERINZ 4.21 06/27/25		
10	VCTNZ 3.69 11/26/27		
11	CHRINT 5.18 05/19/28		
12	TPNZ 5.893 03/15/28		

- 30. 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 2023, changes over time in:
  - 30.1 The four-year risk free rate;
  - 30.2 The five-year risk-free rate;
  - 30.3 The estimated debt premium on bonds rated BBB+ with a remaining term to maturity of five years; and
  - 30.4 The estimated debt premium on bonds rated A- with a remaining term to maturity of five years.

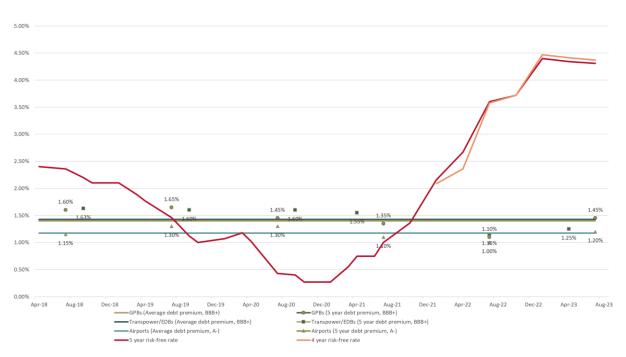


Figure 1: Changes in the risk-free rate and estimated debt premium over time