

Cost of capital determination for customised price-quality path proposals made by Vector Limited and GasNet Limited for gas distribution and gas transmission services

[2015] NZCC 36

The Commission: S Begg
Dr M Berry
Dr S Gale

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Associated documents

Publication date	Reference	Title
19 December 2014	ISSN 1178-2560	Cost of capital determination for customised price-quality path proposals made by Vector Limited and GasNet Limited for gas distribution and gas transmission services [2014] NZCC 41
20 December 2013	ISBN 978-1-869453-44-2	Cost of capital determination for customised price-quality path proposals made by Vector Limited and GasNet Limited for gas distribution and gas transmission services [2013] NZCC 24
20 December 2012	ISBN 978-1-869453-03-9	Cost of capital determination for default price-quality paths for suppliers of gas distribution and gas transmission services, and customised price-quality path proposals made by Vector Limited and GasNet Limited [2012] NZCC 38
30 September 2011	ISBN 978-1-869451-86-8	Determination of the cost of capital for suppliers of gas distribution and gas transmission services under Part 4 of the Commerce Act 1986 Decision Number 745

Executive summary

1. This determination sets vanilla weighted average cost of capital (WACC) estimates that will apply to customised price-quality path (CPP) proposals made by:¹
 - 1.1 Vector Limited (Vector), for the supply of gas distribution services or gas transmission services; or
 - 1.2 GasNet Limited (GasNet), for the supply of gas distribution services.
2. The WACC estimates in this determination apply to any CPP proposals made by Vector or GasNet before the next CPP WACC determination for Vector and GasNet which will be made in December 2016.
3. Vanilla WACC estimates for CPP proposals made by Vector and GasNet are summarised in Table 1 below. The vanilla WACC is a weighted average of the pre-corporate tax cost of debt and the cost of equity.

Table 1: Vanilla WACC estimates for Vector and GasNet CPP proposals (%)

	Mid-point	67 th percentile
Vanilla WACC (3 years)	6.18	6.71
Vanilla WACC (4 years)	6.25	6.78
Vanilla WACC (5 years)	6.33	6.86

4. 67th percentile estimates of vanilla WACC are used for CPPs. The WACCs are estimated as at 1 December 2015.²

¹ The vanilla WACC estimates for CPP proposals in this determination do not apply to Powerco Limited or Maui Development Limited, as their disclosure years do not end on 30 June. Powerco Limited's disclosure year ends on 30 September and Maui Development Limited's disclosure year ends on 31 December.

² Following our recent review of the WACC percentile for electricity lines and gas pipeline businesses, 67th percentile estimates of vanilla WACC are used for GPBs subject to a CPP. See clauses 6.3 and 6.4 of Electricity Lines Services and Gas Pipeline Services Input Methodologies Determination Amendment (WACC percentile for price-quality regulation) 2014 [2014] NZCC 27.

Introduction

5. This determination sets vanilla WACC estimates that will apply to CPP proposals made by:³
 - 5.1 Vector, for the supply of gas distribution services or gas transmission services; or
 - 5.2 GasNet, for the supply of gas distribution services.
6. The WACC estimates in this determination apply to any CPP proposals made by Vector or GasNet before the next CPP WACC determination for Vector and GasNet which will be made in December 2016.
7. Vanilla WACCs for CPP proposals made by Vector and GasNet are set under:
 - 7.1 clauses 5.3.22 to 5.3.29 of the Gas Distribution Services Input Methodologies Determination 2012 (the GDS IM Determination);⁴ and
 - 7.2 clauses 5.3.18 to 5.3.25 of the Gas Transmission Services Input Methodologies Determination 2012 (GTS IM Determination).⁵
8. The parameter values, estimates and information sources used to estimate WACC are set out in this determination. Additional commentary on the estimation of the risk-free rate and the debt premium is also provided.
9. For example, this determination identifies the issuers and bonds that were analysed (including the credit rating and remaining term to maturity) when estimating the debt premium. The commentary also explains which debt premium estimates were given greater weight than other estimates.

³ The vanilla WACC is a weighted average of the pre-corporate tax cost of debt and the post-tax cost of equity. The vanilla WACC estimates for CPP proposals in this determination do not apply to Powerco Limited or Maui Development Limited, as their disclosure years do not end on 30 June. Powerco Limited's disclosure year ends on 30 September and Maui Development Limited's disclosure year ends on 31 December.

⁴ Commerce Commission "Gas Distribution Services Input Methodologies Determination 2012" (16 December 2013).

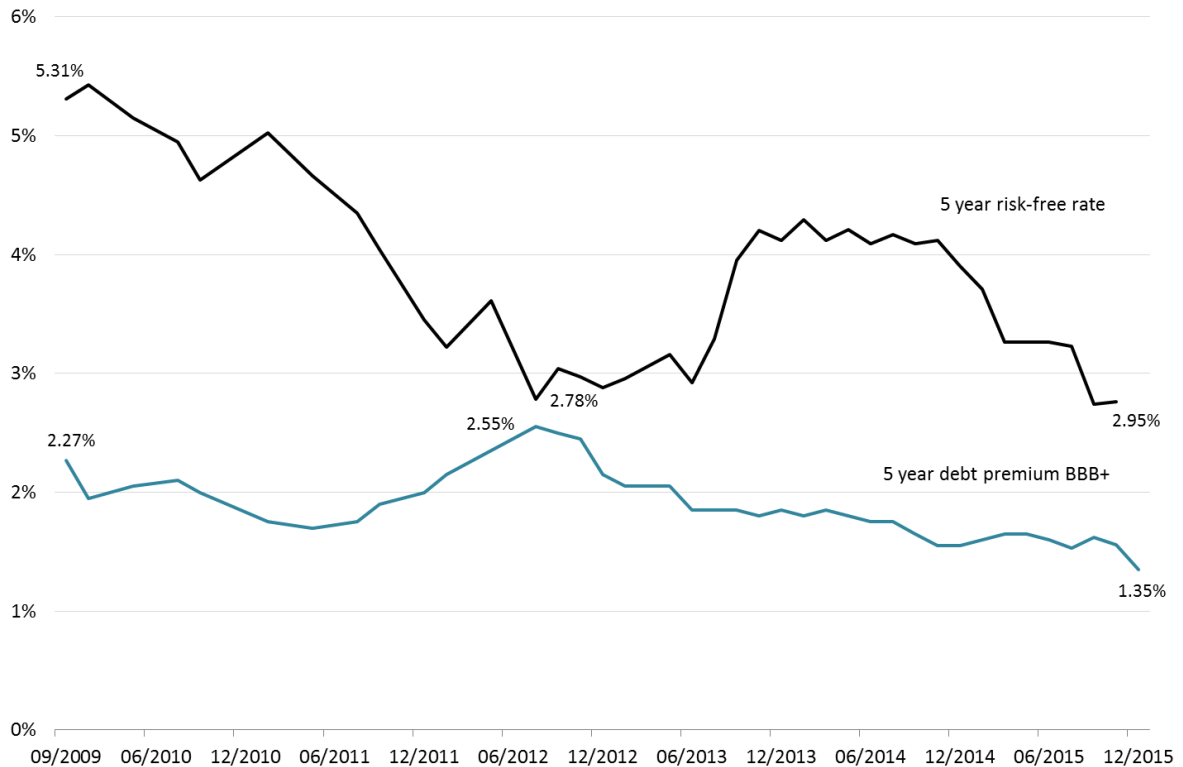
⁵ Commerce Commission "Gas Transmission Services Input Methodologies Determination 2012" (25 February 2013).

Background

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

10. The cost of capital input methodologies for regulated services reflect that both the risk-free rate and the debt premium on bonds change over time.⁶
11. Changes in the risk-free rate and debt premium on bonds are illustrated below. Figure 1 shows, as at 1 December 2015, changes over time in the:
- 11.1 five year risk-free rate; and
- 11.2 debt premium on bonds rated BBB+ with a term of five years.

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



⁶ The risk-free rate is estimated based on an interpolation of bid yields on New Zealand government stock to a term to maturity of five years. The debt premium is estimated on publicly traded corporate bonds according to the methodology specified in the GDS and GTS IM Determinations.

Reasons for differences in WACC under the various cost of capital input methodologies determinations

12. Differences in the WACCs estimated under the various cost of capital input methodologies reflect differences in the:
 - 12.1 date of estimation for the WACCs, which results in different estimates of the risk-free rate and debt premium;
 - 12.2 periods in which the WACCs will apply;
 - 12.3 context in which the WACCs will be used (67th percentile estimates of the WACC are used when considering default and customised price-quality paths, while a midpoint and range is determined for information disclosure);
 - 12.4 assessed risk of the various regulated services (electricity distribution businesses (EDBs) and Transpower have an asset beta of 0.34, gas pipeline businesses (GPBs) have an asset beta of 0.44 and airports have an asset beta of 0.60); and
 - 12.5 value of leverage for airports (17%) and for EDBs, GPBs, and Transpower (44%).

WACC for CPP proposals made by Vector and GasNet

13. Under clause 5.3.28 of the GDS IM Determination and clause 5.3.24 of the GTS IM Determination, we have determined 67th percentile estimates of vanilla WACC for inclusion in CPP proposals made by Vector or GasNet. The WACC estimates in this determination apply to any CPP proposals made by Vector or GasNet before the next CPP WACC determination for Vector and GasNet which will be made in December 2016.
14. The 67th percentile estimate of vanilla WACC for a CPP period of three years is 6.71%, four years is 6.78% and five years is 6.86%. The corresponding mid-point vanilla WACCs are 6.18%, 6.25% and 6.33% for periods of three, four and five years, respectively. These WACCs are estimated as at 1 December 2015.

Parameters used to estimate the WACC

15. The above estimates of vanilla WACC reflect the parameters specified in the GDS IM Determination and the GTS IM Determination. The risk-free rate and debt premium are also estimated in accordance with the GDS IM Determination and the GTS IM Determination.

Summary of parameters

16. The parameters used to estimate the vanilla WACCs are summarised in Table 2 below.

Table 2: Parameters used to calculate vanilla WACC

Parameter	Estimate (3 years)	Estimate (4 years)	Estimate (5 years)
Risk-free rate	2.71%	2.83%	2.95%
Debt premium	1.23%	1.30%	1.35%
Leverage	44%	44%	44%
Equity beta	0.79	0.79	0.79
Tax adjusted market risk premium	7.0%	7.0%	7.0%
Average corporate tax rate	28%	28%	28%
Average investor tax rate	28%	28%	28%
Debt issuance costs	0.58%	0.44%	0.35%
Cost of debt	4.52%	4.57%	4.65%
Cost of equity	7.48%	7.57%	7.65%
Standard error of debt premium	0.0015	0.0015	0.0015
Standard error of WACC	0.012	0.012	0.012
Mid-point vanilla WACC	6.18%	6.25%	6.33%

Note: The cost of debt is calculated as the risk-free rate + debt premium + debt issuance costs. The cost of equity is calculated as the risk-free rate \times (1 - investor tax rate) + the equity beta \times the tax adjustment market risk premium. The mid-point vanilla WACC is calculated as the cost of equity \times (1 - leverage) + the cost of debt \times leverage.

Risk-free rate

- The risk-free rate reflects the linearly-interpolated, annualised, bid yield to maturity on New Zealand government bonds with a term to maturity of five, four and three years. The estimates use data reported by Bloomberg for the month of November 2015 in respect of the December 2017, March 2019, April 2020 and May 2021 maturity bonds. The December 2017, March 2019, April 2020 and May 2021 bonds have simple average annualised bid yields to maturity of 2.63%, 2.73%, 2.89% and 3.00% respectively.

18. The daily data reported by Bloomberg is annualised (to reflect the 6 monthly payment of interest), averaged to give a monthly average, and linearly interpolated to produce the estimate of a 2.95% interest rate on a NZ government bond with a five year term to maturity as at 1 December 2015. For terms to maturity of four years and three years, the risk-free rates are 2.83% and 2.71%, respectively.

Tax rates

19. The average corporate tax rate is the corporate tax rate of 28% for all years. The average investor tax rate is the investor tax rate of 28% for all years.

Standard error of the WACC

20. The standard error of the WACC is determined in accordance with the formula in the GDS and GTS IM Determinations, and is shown to three decimal places only in Table 2 above.

Debt premium

21. The methodology for determining the debt premium is set out in clause 5.3.25 of the GDS IM Determination and clause 5.3.21 of the GTS IM Determination.
22. Clause 5.3.25(3)(d) of the GDS IM Determination and clause 5.3.21(3)(d) of the GTS IM Determination require the Commission to estimate the debt premium that would reasonably be expected to apply to a vanilla NZ\$ denominated bond that:
- 22.1 is issued by a GPB or an EDB that is neither majority owned by the Crown or a local authority;⁷
 - 22.2 is publicly traded;
 - 22.3 has a qualifying rating of grade BBB+; and
 - 22.4 has a remaining term to maturity of five years (or four or three years as applicable under clause 5.3.25(6) of the GDS IM Determination or clause 5.3.21(6) of the GTS IM Determination).
23. In estimating the debt premium, clause 5.3.25(4) of the GDS IM Determination and clause 5.3.21(4) of the GTS IM Determination provide that the Commission will have regard to:
- 23.1 bonds issued by a GPB or an EDB (that is not government-owned) with a rating of BBB+;
 - 23.2 bonds issued by another entity (that is not government-owned) with a rating of BBB+;

⁷ Clause 5.3.25(3)(d)(i) of the GDS IM Determination refers to a bond issued by a "GDB" rather than a "GPB or an EDB". However, clauses 5.3.25(4)(a)-(e), which describe the bonds the Commission will have regard to for the purpose of subclause (3)(d), refer to bonds issued by "a GPB or an EDB".

- 23.3 bonds issued by a GPB or an EDB (that is not government-owned) with a rating other than BBB+;
 - 23.4 bonds issued by another entity (that is not government-owned) with a rating other than BBB+; and
 - 23.5 bonds issued by government-owned entities.
24. Clause 5.3.25(5)(a) of the GDS IM Determination and clause 5.3.21(5)(a) of the GTS IM Determination provide that progressively lesser regard will ordinarily be given to the debt premium estimates in the order that the bonds are identified in clauses 5.3.25(4)(a) to (e) and clauses 5.3.21(4)(a) to (e), respectively.
25. Table 3, Table 4 and Table 5 below show the debt premiums for terms of three, four and five years respectively, determined as at 1 December 2015. These tables include a summary of information on the investment grade rated bonds we considered in determining the debt premium, for remaining terms of five years, four years, and three years.
26. A spreadsheet showing the calculations for the debt premium (and the risk-free rate) is published on our website.⁸

⁸ See www.comcom.govt.nz/cost-of-capital/

Five year debt premium

27. Table 3 below shows the five year debt premium on a GPB/EDB issued bond rated BBB+, as at 1 December 2014.

Table 3: Five-year debt premium on a GPB/EDB-issued bond rated BBB+⁹

	Industry	Rating	Remaining term to maturity	Debt premium	Comment		
Determined debt premium	EDB/GPB	BBB+	5.0	1.35	Regard to results 4(b) and 4(d) Generally consistent with 4(e)		
Subclause	Issuer	Note ref.	Industry	Rating	Remaining term to maturity	Debt premium	Comment
4(a)	-	-	-	-	-	-	No data on applicable bonds
4(b)	WIAL	1	Other	BBB+	5.0	1.35	Credit rating and term are an exact match
4(c)	-	-	-	-	-	-	No data on applicable bonds
4(d)	Spark	2	Other	A-	5.0	1.06	BBB+ debt premium would be higher
	AIAL	3	Other	A-	5.0	1.00	BBB+ debt premium would be higher
	Contact	4	Other	BBB	5.0	1.39	BBB+ debt premium would be lower
	Fonterra	5	Other	A	5.0	1.08	BBB+ debt premium would be significantly higher
4(e)	Meridian	6	Other	BBB+	1.3	0.95	
	Genesis Energy	7	Other	BBB+	5.0	1.42	
	MRP	8	Other	BBB+	5.0	1.42	
	CIAL	9	Other	BBB+	5.0	1.32	
	Transpower	10	Other	AA-	5.0	0.80	

Notes on bonds analysed:

- 1 WIAL 5.27% bond maturing 11/06/2020; 6.25% bond maturing 15/05/2021.
- 2 Spark 5.25% bond maturing 25/10/2019; 4.5% bond maturing 25/03/2022.
- 3 AIAL 4.73% bond maturing 13/12/2019; 5.52% bond maturing 28/05/2021.
- 4 Contact Energy 5.277% bond maturing 27/05/2020; 4.40% bond maturing 15/11/2021.
- 5 Fonterra 5.52% bond maturing 25/02/2020; 4.33% bond maturing 20/10/2021.
- 6 Meridian 7.55% bond maturing 16/03/2017.
- 7 Genesis Energy 8.3% bond maturing 23/06/2020; 5.81% bond maturing 8/03/2023.
- 8 MRP 8.21% bond maturing 11/02/2020; 5.793% bond maturing 6/03/2023.
- 9 CIAL 5.15% bond maturing 6/12/2019; 6.25% bond maturing 4/10/2021.
- 10 Transpower 6.95% bond maturing 10/06/2020; 4.3% bond maturing 30/06/2022.

⁹ The five-year debt premiums on the Auckland International Airport Limited (AIAL), Contact Energy, Fonterra, Genesis Energy, Mighty River Power (MRP), Christchurch International Airport Limited (CIAL) and Transpower bonds are calculated by linear interpolation with respect to maturity. The Meridian bond is calculated by interpolated bid to bid spread between the corporate bonds and a New Zealand Government Treasury Bill, maturing 3 August 2016. New Zealand Government Treasury Bills have been used as there are no Government bonds available with maturity date between 16 April 2015 to 14 December 2017 to interpolate the corporate bonds.

28. Consistent with clause 5.3.25(4)-(5)(a) of the GDS IM Determination and clause 5.3.21(4)-(5)(a) of the GTS IM Determination, greatest regard has been given to the estimated debt premium on Wellington International Airport Limited's (WIAL's) bonds. These bonds are publicly traded, and are issued by an entity other than an EDB/GPB with a rating of BBB+.
29. As at 1 December 2015, the debt premium on the WIAL bond is estimated at 1.35%. As the credit rating and remaining term to maturity match the requirements in clause 5.3.25(3)(d), we consider 1.35% to be an appropriate starting point for estimating the debt premium (noting that WIAL is not an EDB/GPB).
30. We have also had regard to the estimated debt premium on bonds from a range of other issuers which all had a remaining term to maturity of five years. These included Spark (1.06%, 4.9 years, rated A-), Auckland International Airport Limited (AIAL) (1.00%, 5 years, rated A-), Contact (1.39%, 5 years, rated BBB) and Fonterra (1.08%, 5 years, rated A). Consistent with clause 5.3.25(5)(a) these debt premiums were given less weight as the issuers are not EDBs or GPBs, and the debt issues had different credit ratings than the BBB+ rating specified in clause 2.4.4(3)(d).¹⁰ Taking into account the likely impact of differences in credit rating and term to maturity, we consider that these debt premiums are generally consistent with an estimate of 1.35% for a BBB+ rated bond with a five year term to maturity.
31. The estimated debt premium on the Meridian bond (0.95%, 1.3 years, rated BBB+) the Genesis Energy bonds (1.42%, 5 years, rated BBB+), the Mighty River Power (MRP) bonds (1.42%, 5 years, rated BBB+), the Christchurch International Airport Limited (CIAL) bonds (1.32%, 5 years, rated BBB+), and Transpower bonds (0.80%, 5 years, rated AA-) were also considered, but given less weight as the issuers are either majority owned by the Crown or a local authority.
32. Starting with the estimated debt premium on WIAL bonds, but having regard to the debt premium on a range of other bonds, we have determined the debt premium on a publically traded, EDB/GPB-issued bond, rated BBB+ with a remaining term of five years to be 1.35% as at 1 December 2015.

¹⁰ Telstra is not included in category 4(d) of Table 3 because it is not a New Zealand resident limited liability company (as required by the definition of "qualifying issuer" in the EDS IM Determination).

Four year debt premium

33. Table 4 below shows the four year debt premium on a GPB/EDB issued bond rated BBB+, as at 1 December 2014.

Table 4: Four-year debt premium on a GPB/EDB-issued bond rated BBB+¹¹

			Industry	Rating	Remaining term to maturity	Debt premium	Comment
Determined debt premium			EDB/GPB	BBB+	4.0	1.30	Regard to results 4(b) and 4(d) Generally consistent with 4(e)
Subclause	Issuer	Note ref.	Industry	Rating	Remaining term to maturity	Debt premium	Comment
4(a)	-	-	-	-	-	-	No data on applicable bonds
4(b)	WIAL	1	Other	BBB+	4.5	1.33	4 year debt premium would be lower
4(c)	-	-	-	-	-	-	No data on applicable bonds
4(d)	Spark	2	Other	A-	4.0	0.92	BBB+ debt premium would be higher
	AIAL	3	Other	A-	4.0	0.86	BBB+ debt premium would be higher
	Contact	4	Other	BBB	4.0	1.36	BBB+ debt premium would be generally lower
	Fonterra	5	Other	A	4.0	0.98	BBB+ debt premium would be significantly higher
4(e)	Meridian	6	Other	BBB+	1.3	0.95	
	Genesis Energy	7	Other	BBB+	4.0	1.29	
	MRP	8	Other	BBB+	4.0	1.30	
	CIAL	9	Other	BBB+	4.0	1.19	
	Transpower	10	Other	AA-	4.0	0.69	

Notes on bonds analysed:

- 1 WIAL 5.27% bond maturing 11/06/2020.
- 2 Spark 7.04% bond maturing 22/03/2016; 5.25% bond maturing 25/10/2019.
- 3 AIAL 5.47% bond maturing 17/10/2017; 4.73% bond maturing 13/12/2019
- 4 Contact Energy 4.8% bond maturing 24/05/2018; 5.8% bond maturing 15/05/2019.
- 5 Fonterra 4.6% bond maturing 24/10/2017; 5.52% bond maturing 25/02/2020.
- 6 Meridian 7.55% bond maturing 16/03/2017.
- 7 Genesis Energy 7.185% bond maturing 15/09/2016; 5.205% bond maturing 1/11/2019.
- 8 MRP 7.55% bond maturing 12/10/2016; 5.029% bond maturing 6/3/2019.
- 9 CIAL 5.15% bond maturing 6/12/2019.
- 10 Transpower 5.14% bond maturing 30/11/2018, 4.65% bond maturing 06/09/2019.

¹¹ The four-year debt premiums on the Spark, Auckland International Airport Limited (AIAL), Contact Energy, Fonterra, Genesis Energy, Mighty River Power (MRP) and Transpower bonds are calculated by linear interpolation with respect to maturity.

The AIAL, Fonterra, Meridian, Genesis Energy and MRP bonds are calculated by interpolated bid to bid spread between the corporate bonds and a New Zealand Government Treasury Bill, maturing 26 October 2016.

The Spark bond is calculated by interpolated bid to bid spread between the corporate bonds and New Zealand Treasury Bills, maturing 2 March 2016 and 26 October 2016.

34. Consistent with clause 5.3.25(4)-(5)(a) of the GDS IM Determination and clause 5.3.21(4)-(5)(a) of the GTS IM Determination, greatest regard has been given to the estimated debt premium on WIAL's June 2020 bond. This bond is issued by an entity other than an EDB/GPB, is publicly traded and has a rating of BBB+. The June 2020 bond has a term to maturity of 4.5 years, which is more than the four years specified in clause 5.3.25(3)(d).
35. As at 1 December 2015, the debt premium on the WIAL bond with a remaining term to maturity of 4.5 years was estimated at 1.33%. This is indicative of the upper bound of the debt premium for a bond rated BBB+ with a term of four years. A four year debt premium would likely be lower.
36. We have also had regard to the estimated debt premium on bonds from a range of other issuers. These included Spark (0.92%, 4 years, rated A-), AIAL (0.86%, 4 years, rated A-), Contact (1.36%, 4 years, rated BBB) and Fonterra (0.98%, 4 years, rated A). Consistent with clause 5.3.25(5)(a) these were given less weight as the issuers are not EDBs or GPBs, and the debt issues had different credit ratings than the BBB+ rating specified in clause 5.3.25(3)(d).
37. The estimated debt premium on the Meridian bond (0.95%, 1.3 years, BBB+), Genesis bonds (1.29%, 4 years, rated BBB+), MRP bonds (1.30%, 4 years, rated BBB+), the CIAL bond (1.19%, 4 years, rated BBB+), and Transpower bonds (0.69%, 4 years, rated AA-) were also considered, but given less weight as the issuers are either majority owned by the Crown or a local authority.
38. Starting with the estimated debt premium on the WIAL bond, but having regard to the debt premium on a range of other bonds, we have determined the debt premium on a publicly traded, EDB/GPB-issued bond, rated BBB+ with a remaining term of four years to be 1.30% as at 1 December 2015.

Three year debt premium

39. Table 5 below shows the three year debt premium on a GPB/EDB issued bond rated BBB+, as at 1 December 2015.

Table 5: Three-year debt premium on a GPB/EDB-issued bond rated BBB+¹²

	Industry	Rating	Remaining term to maturity	Debt premium	Comment
Determined debt premium	EDB/GPB	BBB+	3.0	1.23	Regard to results 4(b) and 4(d) Generally consistent with 4(e)

Subclause	Issuer	Note ref.	Industry	Rating	Remaining term to maturity	Debt premium	Comment
4(a)	-	-	-	-	-	-	No data on applicable bonds
4(b)	WIAL	1	Other	BBB+	4.5	1.33	3 year debt premium would be significantly lower
4(c)	-	-	-	-	-	-	No data on applicable bonds
4(d)	Spark	2	Other	A-	3.0	0.88	BBB+ debt premium would be higher
	AIAL	3	Other	A-	3.0	0.77	BBB+ debt premium would be higher
	Contact	4	Other	BBB	3.0	1.24	BBB+ debt premium would be generally lower
	Fonterra	5	Other	A	3.0	0.88	BBB+ debt premium would be significantly higher
4(e)	Meridian	6	Other	BBB+	1.3	0.95	
	Genesis Energy	7	Other	BBB+	3.0	1.16	
	MRP	8	Other	BBB+	3.0	1.15	
	CIAL	9	Other	BBB+	4.0	1.19	
	Transpower	10	Other	AA-	3.0	0.65	

Notes on bonds analysed:

- 1 WIAL 5.27% bond maturing 11/06/2020.
- 2 Spark 7.04% bond maturing 22/03/2016; 5.25% bond maturing 25/10/2019.
- 3 AIAL 5.47% bond maturing 17/10/2017; 4.73% bond maturing 13/12/2019
- 4 Contact Energy 7.86% bond maturing 13/04/2017; 4.8% bond maturing 24/05/2018.
- 5 Fonterra 4.6% bond maturing 24/10/2017; 5.52% bond maturing 25/02/2020.
- 6 Meridian 7.55% bond maturing 16/03/2017.
- 7 Genesis Energy 7.185% bond maturing 15/09/2016; 5.205% bond maturing 1/11/2019.
- 8 MRP 7.55% bond maturing 12/10/2016; 5.029% bond maturing 6/3/2019.
- 9 CIAL 5.15% bond maturing 6/12/2019.
- 10 Transpower 6.595% bond maturing 15/02/2017; 5.14% bond maturing 30/11/2018.

¹² The three-year debt premiums on the Spark, AIAL, Contact, Fonterra, Genesis Energy, MRP and Transpower bonds are calculated by linear interpolation with respect to maturity. The AIAL, Fonterra, Meridian, Genesis Energy, MRP and Transpower bonds are calculated by interpolated bid to bid spread between the corporate bonds and a New Zealand Government Treasury Bill, maturing 3 August 2016. The Spark bond is calculated by interpolated bid to bid spread between the corporate bonds and New Zealand Government Treasury Bills, maturing 2 March 2016 and 3 August 2016.

40. Consistent with clause 5.3.25(4)-(5)(a) of the GDS IM Determination and clause 5.3.21(4)-(5)(a) of the GTS IM Determination, greatest regard has been given to the estimated debt premium on WIAL's June 2020 bond. This bond is issued by an entity other than an EDB/GPB, is publicly traded and has a rating of BBB+. The June 2020 bond has a term to maturity of 4.5 years, which is more than the three years specified in the IMs determinations.
41. As at 1 December 2015, the debt premium on the WIAL bond with a remaining term to maturity of 4.5 years was estimated at 1.33%. This is indicative of the upper bound of the debt premium for a bond rated BBB+ with a term of three years. A three year debt premium would likely be significantly lower.
42. Regard has also been given to the estimated debt premium on bonds from a range of other issuers which all had a remaining term to maturity of three years. These included Spark (0.89%, rated A-), AIAL (0.77%, rated A-), Contact (1.24%, rated BBB) and Fonterra (0.88%, rated A). Consistent with clauses 5.3.25(5)(a) of the GDS IM Determination and 5.3.21(5)(a) of the GTS IM Determination these debt premiums were given less weight as the issuers are not GPBs or EDBs, and the debt issues had different credit ratings than the BBB+ rating specified in subclause (3)(d).
43. The estimated debt premium on the Meridian bond (0.95%, 1.3 years, rated BBB+), Genesis bonds (1.16%, 3 years, rated BBB+), MRP bonds (1.15%, 3 years, rated BBB+), CIAL bond (1.19%, 4 years, rated BBB+), and Transpower bond (0.65%, 3 years, rated AA-) were given less weight as these issuers are either majority owned by the Crown or a local authority.
44. Starting with the estimated debt premium on the WIAL bond, but having regard to the debt premium on a range of other bonds, we have determined the debt premium on a publicly traded, EDB/GPB-issued bond, rated BBB+ with a remaining term of three years to be 1.23% as at 1 December 2015.