2023-27
POWERLINK QUEENSLAND REVENUE PROPOSAL

Appendix 6.05 – PUBLIC

Incenta
Benchmark Debt and Equity Raising Costs Report

Benchmark debt and equity raising costs

Powerlink

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1. Executive Summary

1.1 Our Brief

Powerlink Queensland (Powerlink) is preparing for its next regulatory determination process for the 2023-27 regulatory period. As part of its submission to the Australian Energy Regulator (AER), Powerlink has requested Incenta to undertake a review of relevant information and provide recommendations relating to debt and equity raising transaction costs to inform and support Powerlink's Revenue Proposal.

1.2 Our recommendations

Powerlink requested that we estimate the direct debt and equity raising costs that a benchmark efficient energy network service provider would be expected to incur in the upcoming regulatory period. Our recommendations are as follows:

1.2.1 Recommendations:

A debt raising cost of 8.46 bppa is recommended

We recommend that Powerlink apply an **8.46 bppa** (basis points per annum) debt raising cost, comprised of:

– An arrangement fee of 6.75 bppa based on the value that the Australian Energy Regulator (AER) accepted in the SA Power Networks decision; [1] and

– Other debt raising costs of 1.71 bppa based on applying the approach the AER accepted in the SA Power Networks decision using the Chairmont report's updated other cost parameters and Powerlink's number of benchmark bond issues (17 bonds instead of 11). [2]

No equity raising costs are required

Powerlink does not require any equity to be raised and therefore would not attract equity raising costs over the forecast period.

1.2.2 Key Observations:

The recommended debt raising cost allowance is likely to under-estimate the benchmark debt raising cost

However, we believe that there is reason to believe this allowance is more likely than not to understate the cost, although not by an amount that could be considered material.

There are two reasons that suggest 6.75 bppa could under-estimate a benchmark arrangement fee:

- First, if the PwC approach were to be strictly applied – which means using only the last 5-years of bond observations – then the annualised arrangement fee would be 7.0 bppa using Powerlink's cost of debt as the annualisation discount rate.

[1] AER (June 2020), *Final decision – SA Power Networks 2020-25, Attachment 3: Rate of Return*, p.3-14.
[2] Chairmont (29 June, 2019), *Debt Raising Costs*.

- Secondly, a case could be made to use US data more generally as a guide.[3] Using US data on the arrangement fee for 10-year issues by BBB-rated utilities would produce an arrangement fee of approximately 8.0 bppa.

The other debt raising costs allowance is slightly higher than before and appears reasonable given inflation since the last review in 2013. However, this component may also under-estimate the benchmark cost as the US evidence for utility businesses issuing 10-year BBB bonds indicates that other bond issuance fees are approximately 2.5 bppa rather than 1.71 bppa.

Some of the Chairmont report's recommendations are questionable

- Whilst we advise applying the AER's most recent decision (adapted to Powerlink), our view is that several of the Chairmont report's specific recommendations to the AER are questionable. In particular:
  - Chairmont advised that the standard arrangement fee for a 10 year BBB bond is 30bp;[4] however, this is not based on verifiable data and is at odds with US evidence showing the arrangement fee for 10-year bonds issued by US energy utilities (with ratings in either the BBB or A bands) is consistently 65bp.
  - Chairmont recommended looking at the arrangement fees of Australian firms issuing in the US across the broad A and BBB credit ratings. Whilst this was part of the PwC (2013) method, including the higher ratings warrants further review as US evidence shows that, for 10-year term bonds, A rated businesses have an arrangement fee that is systematically 20bp lower than for BBB rated businesses.
    - However, if the sample was restricted to only Australian BBB businesses issuing in the US, and Chairmont's recommendation of observing fees for issues with terms between 7 and 13 years, this would leave no valid observations of arrangement fees for the last 5 years, and only 3 observations since 2008.[5]
    - We think this argues for using the US issues more generally (i.e., data on arrangement fees from all firms issuing in the US) as we discussed above, which would permit an arrangement fee that is specifically relevant to 10 year BBB-band debt.

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3 The PwC (2013) method is based on observations of the arrangement fees declared by Australian firms in the US corporate bond market (the US being important because it is the only source of public data on arrangement fees). The alternative suggested here is to look at the arrangement fees declared by all firms on the US corporate bond market, which has the advantage of providing many more observations, i.e. 50-100 observations for BBB utility bond issues with 10 year terms.

4 Note, this is the upfront fee (in basis points), which then needs to be amortised over the life of the bond to derive the fee in basis points per annum.

5 Those 7 BBB observations have an average annualised arrangement fee of 7.67 bppa using a 10 per cent generic discount rate and 5.92 bppa using Powerlink's cost of debt.

2. Chairmont's analysis of the arrangement fee and our observations

The Chairmont report was divided into two parts, with the first part addressing the arrangement fee and the second part dealing with "other debt raising costs".

2.1 Chairmont's recommendations on the arrangement fee

The "arrangement fee" is the fee that is paid to the investment bank to compensate for the cost of placing the debt with investors, which entails such activities as preparing the prospectus, undertaking marketing road shows and running a bookbuild to determine pricing and allocations to investors.

Whilst the benchmark debt characteristics continue to be investment grade (BBB) debt with a term of 10-years issued in the Australian market, the method for estimating the arrangement fee has since Allen Consulting Group's (ACG) (2004) report been to observe the arrangement cost recorded in prospectuses for bonds issued internationally by Australian companies, and to convert these to a basis points per annum (bppa) by reference to the Weighted Average Cost of Capital (WACC).[6] Both the ACG (2004) and subsequent PricewaterhouseCoopers (PwC) (2013) reports removed outliers from consideration. For example, the PwC (2013) report indicated that it classed as "outliers" arrangement fees greater than 20 bppa.

Using Bloomberg's fixed income search function, Chairmont derived a sample of 56 Australian bonds issued internationally for the period 4 January, 2008 to 4 January, 2018, which had arrangement fee data available, as well as other characteristics such as being rated investment grade at issue and not being in the banking and finance sector. Chairmont noted that the arrangement fee may vary by:

- *Issuance size* – a larger bond will be easier to place and be more liquid
- *Tenor (term to maturity)* – based on its review Chairmont could not find a relationship between the arrangement fee and term to maturity, except for those with terms above 15-20 years, which had a higher arrangement fee
- *Sector and credit rating* – a better credit rating (AAA and AA-) will normally reduce the arrangement fee, and according to Chairmont: "Higher rated issuers in a stable sector will normally be quoted a lower fee for a bond issue of the same size and maturity compared to a lower rated issuer in a more volatile sector."[7]

Chairmont also noted that its "informal market survey revealed that 30 basis points is the norm for 10-year benchmark investment grade (BBB) bonds", and recommended:

1. Revising the credit rating filter to include the broad BBB and A credit rating category, and to exclude the broad AAA and AA categories; and

[6] ACG (December, 2004), *Debt and Equity Raising Transaction Costs, Final Report, Report to The Australian Competition and Consumer Commission.*
[7] Chairmont (29 June, 2019), p.9.

2. Replacing 'All Maturities' filter with a range of '+/- 3 years' around the 10 year benchmark maturity.

In addition, Chairmont recommended:

- Not to limit the selection to those bonds with an S&P rating but to expand this to include Moody's and Fitch.
- Supplement the sample with actual data obtained from the regulated business's bond raisings.
- Select bonds based on "country of risk" or "country of incorporation."[8]
- Take a "cost of debt approach" to annualise the arrangement fee data by applying the cost of debt rather than the WACC in order to "align the arrangement cost with the cost of debt and exclude the cost of equity."[9]
- That actual arrangement fee data from the regulated business should also be combined with data that is more broadly sourced.

Based on its findings, Chairmont recommended that "consideration should be given to changing the Arrangement fee allowance to between 3.23bps and 4.53bps."[10]

2.2 Our observations on the arrangement fee

With regard to the arrangement fee, we believe the Chairmont report has several concerning features, which are discussed under the following headings.

Sample selection - inclusion of bonds with country of incorporation or country of risk is Australia

We applied the same Bloomberg search criteria that Chairmont used, except we extended the search period from 1 April 2008 beyond Chairmont's cut-off at 1 April 2018 up to 30 June 2020. Our results are summarised in Figure 1 below, which is the equivalent of Chairmont's Figure 3. We found 80 bonds compared to Chairmont's 56 bonds, which reduced to 78 bonds owing to irregularities for 2 bonds.[11] The key features of the 78 remaining bonds were as follows:

- 3 were AAA rated semi-government bonds which were included because the search criteria allowed government issues, and 2 were AA rated.
- Of the remaining 73 bonds, 68 were in the A rating band at issuance and 5 were rated BBB.
- The overwhelming majority (85 per cent) of the 73 A and BBB rated bonds in the sample are drawn from only two industry sectors:

8 We note that the PwC (2013) report relied on country of incorporation, and not only country of risk.

9 While is technically more correct to discount by the WACC rather than the cost of debt, since debt raising costs are classed as an operating expense, in practice this has a very minor impact on the calculations.

10 Chairmont (29 June, 2019), p.5.

11 One was a misclassified German bank, and data for the other could not be retrieved.

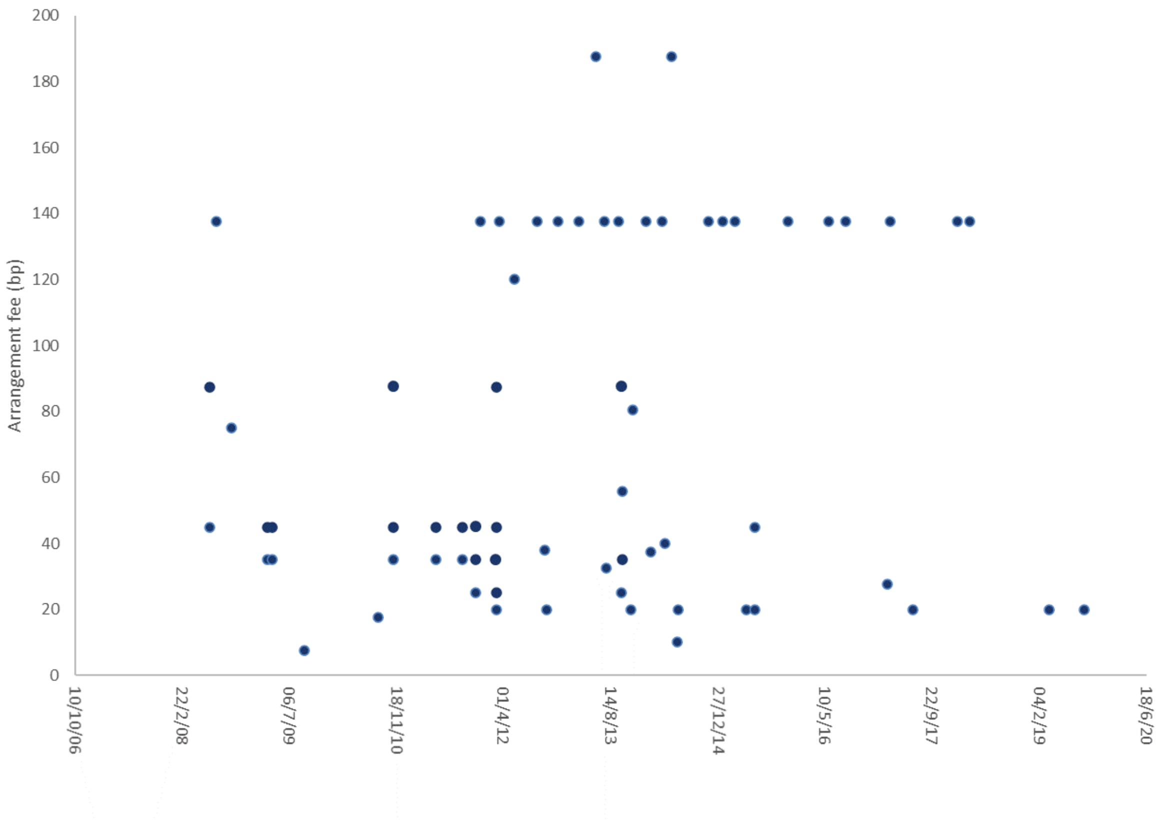
- 27 Mining and Minerals bond issues by two giant A rated global businesses, BHP Billiton and Rio Tinto - it is not clear that bonds issued by such businesses are appropriate to use as a benchmark for a BBB rated energy utility, and
- 35 bond issues were by Automotive manufacturing businesses. These (overwhelmingly Mercedes Benz) A- rated issues are relatively short term (3 year) debt and are responsible for almost all of the outlier observations (shown as the line of arrangement fees at 138 basis points in Figure 1). These characteristics suggest the bonds are supporting automotive leases and should therefore be excluded on grounds of being finance related even though Bloomberg does not class them as such.[12]

We note that if the Chairmont report's "Country of Incorporation (Australia)" and size filter recommendations are applied together (discussed further below), excluding outliers only 16 bonds issued between 2008 and 2015 would remain in the sample. All of the remaining bonds in the sample could be derived by restricting the search to "Country of Risk (Australia)". Expanding the search criteria to "Country of Incorporation" includes a large number of "Automobiles manufacturers", which in practice means Mercedes Benz Australia / Pacific Pty Ltd, whose country of risk is Denmark. These bonds would be eliminated under Chairmont's term filter as they are almost uniformly for 3 years. Other oddities appear with a filter that includes "Country of Incorporation (Australia)".[13]

12 We note that the Daimler Benz company's debt is BBB rated and longer term (generally more than 10 years).

13 For example, CNOOC Finance 2015 Australia Pty Ltd is included, which is a subsidiary of a Chinese listed oil business raising large sums in the US for developments in the South China Sea. However, that business would be eliminated on account of being AA rated.

Figure 1: Country of incorporation "Australia" - arrangement fee, 2008 to 2020



Source: Bloomberg and Incenta analysis

Selection of bonds based on broad A and broad BBB credit ratings

Chairmont's recommendations regarding focus on broad A and broad BBB rating bands is based on a consideration of a relatively small sample concentrated in three industries. The sample is too small and not diverse enough to be able to determine whether the credit rating and industry have important influences on the arrangement fee. To investigate this question we reviewed the arrangement fees paid by a range of US companies rated in the broad A and broad BBB credit rating bands, but restricted the sample to those issuing 10-year term bonds in order to keep that factor constant.

The US evidence, which is displayed in Table 1 above shows that the median arrangement fee is 45 basis points for A rated bonds and 65 basis points for BBB rated bonds. This implies that reliance on a sample comprised of both A and BBB bonds would likely under-estimate the benchmark arrangement fee for a BBB rated business.

Table 1: Median arrangement fees (bp) for 10-year bonds issued in US industries based on credit rating, 2010-2020

Industry	A credit rating		BBB credit rating		BBB
	No	Fee (bp)	No	Fee (bp)	Premium
Advertising & Marketing			7	65	
Aerospace & Defense	12	45	24	65	20
Automobiles Manufacturing	13	45	16	45	0
Biotechnology	3	45	10	45	0
Cable & Satellite	6	45	2	45	0
Chemicals	18	45	64	65	20
Chemicals	18	45	64	65	20
Communications Equipment	4	40	10	55	15
Communications Equipment	4	40	10	55	15
Containers & Packaging			9	65	
Design, Manufacturing & Distribution			7	65	
Electrical Equipment Manufacturing	9	45	38	65	20
Electrical Equipment Manufacturing	9	45	38	65	20
Entertainment Content	9	45	12	45	0
Exploration & Production	7	65	12	65	0
Food & Beverage	34	45	57	65	20
Hardware			6	65	
Health Care Facilities & Services			33	65	
Home & Office Products Manufacturing			5	65	
Home Improvement	4	65	14	65	
Homebuilders			5	70	
Machinery Manufacturing	33	48	21	65	18
Managed Care	13	45	19	65	20
Mass Merchants	7	45	7	65	20
Medical Equipment & Devices Manufacturing	8	45	44	65	20
Metals & Mining			6	65	
Oil & Gas Services & Equipment	5	45	7	65	20
Pharmaceuticals	20	45	4	65	20
Pipeline			59	65	
Power Generation	5	65			
Publishing & Broadcasting			7	65	
Railroad	10	45	20	65	20
Refining & Marketing			7	65	
Restaurants			12	45	
Retail - Consumer Discretionary	16	45			
Retail - Consumer Staples	2	45	41	65	20
Semiconductors	23	45	9	65	20
Software & Services	19	40	26	65	25
Supermarkets & Pharmacies			11	65	
Tobacco	10	45	6	65	20
Transportation & Logistics	8	45	11	65	20
Travel & Lodging			12	65	
Utilities	**158**	**65**	**138**	**65**	**0**
Waste & Environment Services & Equipment			15	65	
Wireless Telecommunications Services			19	40	
Median of Medians		**45**		**65**	**20**

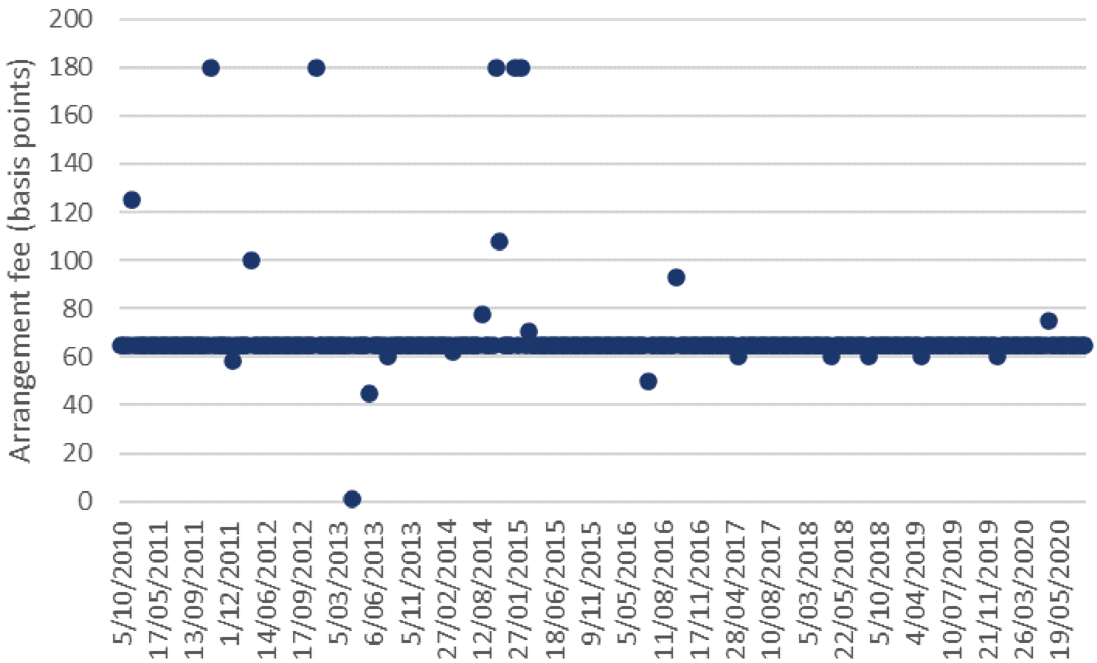
Source: Bloomberg and Incenta analysis

A 30 basis point arrangement fee for 10-year BBB bonds

We consider it inappropriate to rely on a Chairmont survey finding that suggests it is standard to apply a 30-basis point arrangement fee for 10-year BBB bonds. Such an approach is not transparent and verifiable. Given the difficulties of reliance on data relating to Australian bond issues with arrangement fee data, it is useful to examine bond arrangement costs using US data for US utilities. The US bond market is where Australian benchmark energy utility businesses are most likely to be issuing their 10-year BBB rated debt.

The US evidence for A rated and BBB rated utilities issuing 10-year bonds over the past decade is displayed in Figure 2. The evidence indicates that it has been standard for both BBB-rated and A-rated energy utilities issuing 10-year debt to pay an arrangement fee of 65 basis points. In Figure 2 out of a total of 296 bond issuance arrangement fees only 23 were not arranged for 65 basis points. An arrangement fee of 65 basis points for 10-year bonds translates to 8 bppa discounting at Powerlink's cost of debt.

Figure 2: US Utilities – arrangement fee (bp) for 10-year bonds, 2010 to 2020



Source: Bloomberg and Incenta analysis Note: What looks like an unbroken line at 65bp is actually a series of 273 overlapping dots representing the large number of arrangement fees at this level.

Selection of bonds within the range of 7 to 13 year terms to maturity

We note that the average (median) term of bonds shown in Figure 1 above is 6.2 (3) years. Application of Chairmont's suggested term boundaries of +/- 3 years around the benchmark term of 10 years would in the last 5 years remove every potential bond from the sample. If the sample included the whole period from 2008 excluding outliers, only16 bonds would be included but the sample would be dominated by 13 A rated issues, 10 of which were issued by BHP Billiton or Rio Tinto. However, as discussed above, if a general benchmark is being sought the US evidence shows that including A rated bonds as well as BBB bonds is likely to materially understate the arrangement fee for a 10-year BBB bond.

Including actual bond arrangement fees

Chairmont also recommended that Australian regulated businesses' actual arrangement fees be included in the sample. In principle, this is appropriate if the added actual observations are:

- Reflective of the benchmark 10-year debt issued by a BBB-rated business on a stand-alone basis
- Combined with a valid broader set of arrangement fee observations with the same benchmark characteristics (10 year BBB bonds)
- There are enough valid observations to draw supportable conclusions, and
- Confidentiality can be maintained.

2.3 Summary of recommendation on the arrangement fee

We recommend that Powerlink apply an arrangement fee of **6.75 bppa** based on the arrangement fee value that the AER accepted in the SA Power Networks decision.

It should be noted that if Powerlink:

- Applied the PwC approach strictly to the last 5-years of bond observations, of which there are only 5, the annualised arrangement fee would be 7.0 bppa using Powerlink's cost of debt as the annualisation discount rate.
- Used US data for 10-year issues by BBB-rated utilities as a guide then an 8.0 bppa arrangement fee would be indicated.
- Looked at all valid bonds issued over the period since 2008 (under Chairmont's recommendations), coincidentally a 6.75 bppa arrangement fee would result.

3. Chairmont's analysis of other debt raising costs and our observations

3.1 Chairmont's recommendations

The approach used by the AER for other debt raising costs is also based on the ACG (2004) report that was commissioned by the ACCC. That approach was based on building up a benchmark cost of debt issuance by compiling the benchmark cost structure through interviews with market participants and establishing the standard or benchmark issue size based on actual debt issuance by regulated infrastructure firms. These costs were updated by PwC in 2013, when the benchmark debt issuance was set at $250 million.

The Chairmont report recommended:

- That additional costs requested by SA Power Networks (i.e. a liquidity fee, commitment fee, 3 month facility fee, and difference between the issue and trading price) be excluded,
- That the "benchmark should be changed so it is assumed that bonds are repurchased 1 year before maturity and an adjustment to the debt transaction model for the shorter term," that is discounting over 9 years rather than 10 years,[14]
- Increases most of the items in the PwC (2013) cost build up,
- One-off costs should be treated as part of operational expenses,
- the $250 million benchmark issue size should continue to apply.

Using its own approach Chairmont calculated other raising costs of 1.75 bppa for SA Power Networks (with 11 benchmark bond issues).

3.2 Our observations on Chairmont's approach on other debt raising costs

Chairmont's report recommended several adjustments that have changed the other debt raising cost component in the SA Power Networks case relative to using the PwC (2013) parameters:

- First, the individual cost parameters have been updated to the current period, which has meant an increase in costs other things being equal,
- Secondly, the benchmark issuance size has been left at the previous value of $250 million.
- Thirdly, assuming that bonds are refinanced after 9 years will increase the cost other things being equal.

We have no reason to doubt that costs have increased since PwC undertook its review in 2013 but have not undertaken our own review. While discounting at the cost of debt rather than the WACC is

[14] Chairmont's logic was that "if a provider adopted refinancing at or close to 12 months before maturity, then they would not incur increased liquidity reserve and commitment fee costs." Chairmont (29 June, 2019), p.17.

likely to produce a marginally lower cost to the extent that the cost of debt is lower than the WACC, the difference is not material at this time.

In addition, we note that neither of Chairmont (2019), ACG (2004) or PwC (2013) tested their calculated benchmark other costs build up against actual costs as these were assumed not to be available. In reviewing the evidence we found that three bonds in the PwC (2013) sample that were issued by BHP Billiton (EI881021 Corp, EI881013 Corp and EI88100188 Corp) had a common prospectus that is available on Bloomberg.[15] The terms in that prospectus indicate (applying Powerlink's cost of debt as the discount rate) that the weighted average other debt raising costs for the bonds was 11.26bppa. There may be other bonds issued by Australian businesses in the US where the other issuance costs are publicly available in prospectuses, however they are likely to be for large issues by BHP Billiton or Rio Tinto. This is much higher than the 2.5bppa that is indicated by BBB rated US utilities issuing 10 year bonds (as discussed further below).

3.3 Application of Chairmont report to Powerlink

Table 2 shows the effects of applying the new Chairmont parameter values to Powerlink if Powerlink's characteristics are applied (e.g. 17 bond issues rather than SA Power Networks' 11). The table derives other debt raising costs of 1.71bppa.

Table 2: Powerlink – other debt raising costs, using Chairmont parameters applied in SA Powerlink decision

Number of years to discount Value / bppa	Chairmont parameter values ($)	Chairmont basis for calculation	Chairmont SAPN 11 bonds	Adjustment Factor for 17 bonds (11/17)	Powerlink 17 bonds
Bond master program (per program)	110,000	Declines with bonds	0.05	0.65	0.03
Issuers Legal counsel	30,000	Per bond	0.16	1.00	0.16
Company credit rating	85,000	Declines with bonds	0.04	0.65	0.03
Annual surveillance fee	15,000	Per bond	0.05	1.00	0.05
Up-front issue fee (bp per issue)	7.5	Per bond	0.99	1.00	0.99
Registration up-front	13,000	Declines with bonds	0.01	0.65	0.01
Registration annual	6,500	Per bond	0.26	1.00	0.26
Agents Out of pockets	35,000	Per bond	0.19	1.00	0.19
Total basis points per annum			**1.75**		**1.71**

Source: Powerlink, Chairmont, AER and Incenta analysis.

To calculate a debt raising cost allowance for Powerlink using Chairmont's approach we first determined that there would be 17 benchmark issues,[16] which would influence three of the Chairmont parameters. Since Chairmont calculated 11 benchmark bond issues for SA Power Networks we multiplied the SA Power Networks number by a relativity factor (11/17) for the three components that decline with bond size. As shown in the table above this resulted in an estimate of 1.71bppa.

15 The bonds had terms of 3, 5 and 10 years and raised a combined sum of USD3 billion.

16 From Powerlink's PTRM we averaged the RAB over the period ($7,067 million), and determined an average debt amount of $4,240 million, which results in approximately 17 bond issues of $250 million each.

US prospectus data on other debt raising costs

Whilst Bloomberg records only the arrangement fee, the prospectuses issued by US utility businesses raising debt in the US market provide a comprehensive accounting of all the costs that are associated with the issue. We downloaded from Bloomberg the prospectuses for US 10-year bond issues from 2015 to 2018. The results arranged by credit rating are displayed in Table 3 below. They show that the other debt raising costs for US utilities issuing 10-year A or BBB rated bonds have been in the vicinity of 2.5 to 2.6 bppa using a discount rate of 5 per cent.

Table 3: Other debt raising costs, bppa – US utilities issuing 10-year term bonds, 2015-2018

	A rated (N=23)		BBB rated (N = 27)		All A and BBB rated (N=50)	
	Average	Median	Average	Median	Average	Median
Other debt raising costs (bppa)	2.57	2.68	2.61	2.62	2.47	2.63

Source: Bloomberg and Incenta analysis

3.4 Summary of recommendation on other debt raising cost allowance

We recommend that Powerlink propose other debt raising costs of 1.71bppa, which is obtained by applying Chairmont’s revised benchmark cost build up. However, we note that benchmark bond issuance costs for utilities in the US are closer to 2.5 bppa, and a 1.71 bppa allowance is therefore likely to underprovide.