Appendix D

Issuance Costs for Debt and Equity

1 The process of raising capital for a company incurs costs that must be borne by the company. Investors must expect that these costs will be recouped for the company to be an attractive *ex ante* investment. This applies to the costs of raising both equity and debt.

Debt Issuance Costs

2 The cost of debt capital in the WACC is the cost of debt to the entity; in this case the provider of ULLS-Network services. The market-based estimates of the debt risk premium provide the cost of debt to the investor. The rate to the ULLS-Network will not be the same as the rate to the investor.

3 This can be illustrated by the example of an individual selling a house with the assistance of a real estate broker. If the house is sold for $200,000 and the real estate agent's commission is 5%, the house costs the buyer $200,000, but the seller only receives $190,000. The difference is the selling cost.

4 In the case of a debt issue, the yield on the debt to the investor is based upon the full issue price, whilst the cost of debt to the issuer is based upon the lower net proceeds that are received. Therefore, the cost of debt to the issuer is higher than the yield to the investor.

5 In the context of gas transmission, the ACCC has accepted that debt issuance costs are a part of the cost of debt for a company[1]. As a result, the issue becomes one of measurement of those costs.

6 I am advised by Telstra that the aggregate TSLRIC value of the assets of the PSTN networks is about $40 billion. As ULLS-Network is a part of the larger PSTN network, I will consider the issuance costs for the PSTN network. The estimated debt ratio for the network and these services is 20%. Further, normal financing practice would have this debt raised in a number of tranches. Clearly a given issue of debt for the ULLS-Network would be large, perhaps $1 billion.

7 A number of studies have investigated the issuance costs of debt offerings to the public. The study that is most cited estimated the total direct issuance costs as a percentage of the total proceeds for US corporations during the period 1990 to 1994.[2] The costs for large issues averaged as follow (proceeds in US$ millions):

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1 ACCC, "Final Decision, GasNet Australia access arrangement revisions for the Principal Transmission System," dated 13 November 2002, section 5.5.2.

2 I. Lee, S. Lochhead, J. Ritter and Q. Zhao, "The Costs of Raising Capital," *Journal of Financial Research*, Spring 1996, pp 59-74, table 2.

Proceeds	Total Costs
$200 – 500	2.27%
> $500	1.53%[3]

8 PSTN would likely be issuing debt in the $1 billion range, and the average total cost across the two issuance sizes above is 1.90%.

9 This quantum of issuance costs as a percent of the total proceeds of the issue can be converted into an equivalent cost of capital rate. The conversion will depend upon the maturity of the debt, as the longer the maturity, the more years there are over which to spread the costs. In my report, I establish that the appropriate maturity for ULLS-Network is ten years. Thus the issuance cost should be converted to an annualised cost of capital rate for the ten-year maturity.

10 Therefore, the cost of capital adjustment for the issuance costs would be between 0.2% and 0.3% annually.

11 The discussion in this section so far has implicitly been addressing the issuance costs when a debt issue is made to the public. An alternative way to issue debt is by private placement directly to a lender.

12 The issuance costs of a direct placement are considerably lower than a public issue. However, the interest rates paid on private placements are usually higher than those on a public issue. So there is a trade-off when issuing debt by private placement – issuance costs are lower but interest rates are higher.

13 Brealey and Myers state, "*a typical differential (between the interest rate on public and private issues) is on the order of 50 basis points or 0.50 percentage point*".[4] Hays, Joehnk and Melicher conducted an empirical study of the difference in rates between public and private debt issues and found that the yield to maturity on private placements was 0.46% higher than on similar public issues.[5]

14 Because both of these citations are about differences in rates of return rather than the quantum of issuance costs, the differences are quite large. Even if issuance costs of private placements were nil, which of course they are not, it would indicate issuance costs for private debt issues of about 0.50%.

15 If private placements have such a higher interest rate, why does anyone issue debt that way? The major reasons are that private placements of debt have advantages in the debt contracts that can be used, and they can be done much faster. The debt contracts for public debt are quite standardised and allow almost no ongoing adjustments to the contract. Private placement debt contracts can be very flexible and can be tailored to the specific needs of the issuer and lender.

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[3] I note that there are only 19 observations for the largest issuance size, whilst there are 154 observations for the smaller issuance size.

[4] R. Brealey and S. Myers, *Principles of Corporate Finance* (7th ed), 2003, (McGraw-Hill/Irwin: Boston), p 714.

[5] P. Hays, M. Joehnk and R. Melicher, "Determinants of Risk Premiums in the Public and Private Bond Market," *Journal of Financial Research*, Fall 1979, pp 143-152.

16 In footnote 16 of Telstra's 2005 Annual Report, about 25% of its long-term debt is in bonds and 75% is in loans. This is consistent with the larger portion of debt pertaining to the PSTN network being private debt.

17 Given the evidence cited above on the cost of debt issues and giving regard to the size of a debt issue of ULLS-Network, I believe a best estimate for the debt issuance costs is at least 0.20%.

18 I see no reason why the issuance cost would change between the periods under review. Therefore, I estimate the debt issuance cost for ULLS-Network for the fiscal years 2005/06, 2006/07 and 2007/08 is 0.20%.

Equity Issuance Costs

19 To raise its equity financing, a company will incur substantial costs. In its Final Decision on GasNet,[6] the ACCC decided GasNet's access arrangement should (page 151) "include an allowance for equity raising costs of 0.224 per cent of regulated equity, to be recovered as an annual non-capital cost cash flow."

20 The total direct issuance costs of public equity offerings have been studied for both initial public offerings ("IPO") and secondary offerings ("SEO"). The costs as a percent of the offering proceeds for relevant offering sizes (in US$ millions) are shown below.[7]

Proceeds	Total Costs - IPO	Total Costs - SEO
$200 – 500	6.49%	3.48%
≥ $500	5.72%	3.25%

21 The average total cost percentage across the four categories above is 4.735%. For the largest category only, the average of an IPO and a SEO is 4.485%.

22 One textbook[8] reports that the average cost of initial public offerings in Australia in 1995 was 2.5% but does not provide support for this estimate and does not indicate the size of offerings being evaluated. Among other things, this does not recognise the underpricing cost.

23 It has been extensively documented that the issue price on IPOs is at a discount. Brealey and Myers[9] refer to underpricing as the hidden cost of share issues. The magnitude of the underpricing in Australia is reported in a recent textbook to average 15.2%.[10]

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6 "Final Decision, GasNet Australia access arrangement revisions for the Principal Transmission System", dated 13 November 2002, pp 143-151.

7 I. Lee, S. Lochhead, J. Ritter and Q. Zhao, "The Costs of Raising Capital," *Journal of Financial Research*, Spring 1996, pp 59-74, table 2.

8 R. Brealey, S. Myers, G. Partington and D. Robinson, *Principles of Corporate Finance* (Australian ed), 2001, (McGraw-Hill), p 432.

9 R. Brealey, and S. Myers, *Principles of Corporate Finance* (7th ed), 2003, (McGraw-Hill/Irwin: Boston), p 420.

10 P. Vernimmen, P. Quiry, M. Dallocchio, Y., Le Fur and A. Salvi, *Corporate Finance: Theory and Practice*, 2005, John Wiley & Sons, West Sussex, p 605.

24 The IPO discount is another cost of issuance to investors. However, I have not attempted to factor that cost into my analysis here.

25 Certainly a company must have an initial raising of equity. However, it can be argued that the first equity offering is done privately and at lower, but not trivial, cost than above. Then subsequently there is an initial public offering. Depending upon the circumstances it may or may not have a subsequent offering.

26 For businesses the size of ULLS-Network, any pre-public equity raisings would be expected to be quite small in relation to the initial public offerings.

27 The estimation of WACC for ULLS-Network is as if it was a stand-alone business. Therefore, an allowance should be provided that permits ULLS-Network to recover the costs it would be expected to incur in raising equity if it was a separate entity. The quantum of issuance costs as a percent of the total proceeds of the issue can be converted into an equivalent cost of capital rate. The conversion will depend upon the maturity assumed for the equity, as the longer the maturity, the more years there are over which to spread the costs.

28 In its Draft Decision on GasNet, ACCC decided upon using the life of the assets as the amortisation period. In its Final Decision, ACCC reversed this decision and used a perpetuity assumption to estimate the allowance. I believe the equity of any company has an expected life short of perpetual. The quantification of life expectation is problematic. For long-lived infrastructure assets such as a gas pipeline or the PSTN, I believe it is reasonable to assume that the expected equity life is at least the approximate life of the assets, which in the case of ULLS-Network is about 35 years.[11]

29 The allowance could be recovered in two different ways. ACCC decided for GasNet that equity issuance costs would be recovered as an annual non-capital cost cash flow. Alternatively, the costs could be treated as an increment to the cost of equity. My preference is to incorporate the allowance into the cost of equity capital.

30 ULLS-Network is larger than GasNet. There are significant economies of scale in raising equity, although they are primarily at sizes less than even GasNet. Still the cost as a percent of proceeds in equity raising should be somewhat lower for ULLS-Network than for GasNet. However, I believe the allowance provided by the ACCC for GasNet was too low for that business.

31 If the average issuance costs as a percent of proceeds from above are recovered over 35 years, the annual allowance would be about 0.6%.[12] Being conservative, I estimate that the annual allowance for equity raising costs for ULLS-Network should be 0.15% of equity value, and this will apply across the three fiscal years 2005/06, 2006/07 and 2007/08.

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[11] Recent research by Dechow, Sloan and Soliman ("Implied Equity Duration: A New Measure of Equity Risk," *Review of Accounting Studies* 9, 2004, pp 197-228) supports a duration for equity of 15.1 years. They also show that equity duration is positively associated with return volatility and equity beta.

[12] Even if a perpetuity is assumed, the annual allowance is still 0.6%.