TELSTRA'S SUBMISSION IN SUPPORT OF THE ULLS MONTHLY CHARGES UNDERTAKINGS DATED 23 DECEMBER 2005

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A. EXECUTIVE SUMMARY

1 This submission supports Telstra's Undertakings for the Unconditioned Local Loop Service ("**ULLS**") ("**Undertakings**") provided to the Australian Competition and Consumer Commission ("**Commission**") pursuant to section 152BS of the Trade Practices Act 1974 ("**TPA**"). The Undertakings relate to the monthly charge that is to apply when Telstra provides ULLS in the 6 month period from 1 January 2006 to 30 June 2006 and in the 2006/07 and 2007/08 financial years.

2 This submission summarises the reasons why the terms and conditions specified in the Undertakings are reasonable and why they should therefore be accepted by the Commission.

3 Recently, the Government issued a press release in which it stated that it has decided to make explicit Telstra's retail pricing parity obligations by introducing price controls.[1] Telstra also understands that the Government will be formally communicating with the Commission its desire that this public policy obligation and the financial impacts upon Telstra of any Commission decision be taken into account when assessing the prices for ULLS. Consistent with this policy, the Undertaking prices are geographically averaged.

4 In giving these Undertakings Telstra seeks to recover no more than the efficient long-run costs of providing the ULLS, which have been estimated using the Commission's preferred pricing principle for ULLS of Total Service Long Run Incremental Cost ("**TSLRIC**"). In Telstra's view, this will set the correct investment incentives to promote both sustainable competition and efficient investment in, and use of, both Telstra's and alternative infrastructure. This is consistent with the criteria the Commission is required to apply under the TPA. The efficient long-run costs of the ULLS are made up of:

- network costs, which are allocated across all of Telstra's copper lines, **plus**
- ULLS specific costs, which are allocated across the forecast take-up of the ULLS, **less**
- those copper CAN costs which Telstra recovers via the USO levy.

[1] Senator The Hon Helen Coonan and Senator The Hon Nick Minchin, Joint Press Release entitled "*Wholesale Access Prices for ULL and Retail Pricing Parity*", 19 December 2005

B. CONFIDENTIALITY

5 This submission has all of the confidential information deleted and thus may be disclosed publicly.

6 Telstra will provide the confidential version of this submission and the confidential information contained in it to interested parties upon those parties signing appropriate confidentiality undertakings.

7 The confidentiality undertakings do not limit the extent to which interested parties, including the Commission, can analyse and comment on the content of this submission. Rather they are intended to prevent the distribution and use of the confidential material contained in this submission for purposes other than participating in the Commission's public inquiry relating to the Undertaking.

C. PERIOD

8 Telstra has provided the Undertakings for a 2.5 year period in the interests of delivering industry certainty, and in the event that the declaration of ULLS will continue beyond July 2006. Telstra notes that in this respect the Commission has already commenced a consideration of whether ULLS should continue to be declared beyond July 2006 as a part of its wide-ranging "Strategic Review of the Regulation of Fixed Network Services" Inquiry announced on 21 December 2005. In the event, however, that the Commission makes a decision not to re-declare ULLS beyond July 2006, then this Undertaking will be of no effect beyond July 2006.

D. UNDERTAKING PRICES

9 Telstra proposes to charge the following monthly prices (exclusive of GST) ("**Undertaking Prices**") for providing a RSS/RSU connected ULLS for the 6 month period from 1 January 2006 to 30 June 2006 and in each of the years 2006/07 and 2007/08.

	1 January 2006 to 30 June 2006	**2006/07**	**2007/08**
Price	$30/month	$30/month	$30/month

10 The proposed level of monthly charges for ULLS are reasonable on the basis that:

- The prices are no higher than the efficient costs of supplying ULLS, estimated using Telstra's TSLIRIC PIE II model. The PIE II model is the best available model for estimating the TSLRIC of ULLS. PIE II has been reviewed by an international expert economist, Dr Bridger Mitchell, who concludes that the model is consistent

with the principles of forward-looking efficient cost modelling and with the practices adopted in other jurisdictions.

- The prices are well below Telstra's current costs of supplying the ULLS as estimated using the Commission's record keeping rules under Limb 1 of Accounting Separation and only slightly above Telstra's historic ULLS costs, which substantially understate the efficient forward-looking costs of supplying the ULLS.

- The prices are consistent with the lower bound of Telstra's estimate of the long run efficient costs associated with supplying ULLS.

- The prices are based on the prices currently in the market but are geographically averaged rather than de-averaged. The geographic averaging of the prices ensures an outcome consistent with the long term interests of end users across the nation by balancing the economic efficiency benefits associated with efficient cost based prices and an equitable distribution of the benefits associated with competition which ULLS declaration was designed to deliver. This is achieved by allowing Telstra and other carriers to deliver voice and DSL prices at equitable retail prices to all Australians;

- The structure of the prices is consistent with the Government's stated policy of retail pricing parity;

and

- The level of the prices are consistent with those approved by the Commission in the Model Terms and Conditions Determination, when the prices in the Commission's Model Terms and Conditions Determination are averaged across geographic areas using the distribution of capable ULLS

11 If accepted, the Undertakings will provide both the industry and Telstra with increased regulatory certainty in relation to future ULLS monthly charges. Securing such regulatory certainty is important to the future planning of Telstra's telecommunications network and for the business planning purposes of parties that seek access to Telstra's network. This in turn allows better provision of service to end-users, which is plainly consistent with the long term interests of end-users.

E. METHODOLOGY FOR CALCULATING UNDERTAKING PRICES

12 This section discusses the long run efficient cost methodology that has been used to calculate the Undertakings Prices. It then sets out the details of each of the cost components that comprise the long run efficient costs of supplying the ULLS.

E.1 Efficient long run costs

13 There is broad consensus that prices for ULLS should approximate long run efficient costs.[2] Allowing service providers to recover long run efficient costs is essential if consumers are to benefit from continued investment in the telecommunications network. Such investment is required for the supply of new and enhanced services, for the continued reduction of costs of existing services as well as to maintain and improve the quality and ensure the widest possible availability of those services. Accordingly, the recovery of efficient costs in the long term is vital to promote the long term interests of consumers of telecommunications services. For this reason, Telstra continues to believe that prices for the ULLS should be aligned with the level of efficient costs over the long term.

14 For the reasons set out in Annexure A, Telstra submits that efficient cost-based prices meet the criteria in sections 152BV(2) and 152AH of the TPA.

15 The Commission estimates efficient costs using what is known as TSLRIC. Such a forward-looking optimised cost approach abstracts from the actual costs incurred by Telstra and seeks to approximate the costs that a purely hypothetical efficient operator would incur in supplying the projected volume of ULLS in Australia. We refer to these costs as "the long run efficient cost of supply."

16 Telstra has estimated the long run efficient cost of supply of ULLS as follows:

	1 January 2006 to 30 June 2006	2006/07	2007/08
Network Costs	[c-i-c]	[c-i-c]	[c-i-c]
ULLS Specific Costs	[c-i-c]	[c-i-c]	[c-i-c]
USO adjustment	[c-i-c]	[c-i-c]	[c-i-c]
Total ($)	$30.28 to $36.25	$31.08 to $37.78	$31.57 to $38.96

17 Telstra has previously sought to include certain other Public Switched Telephone Network ("**PSTN**") costs in the cost pool for ULLS. However, the Commission has

[2] See Final Report on "*Pricing of unconditioned local loop services*" in March 2002 and "*Assessment of Telstra's Undertakings for PSTN, ULLS and LCS - Draft Decision*" released by the Commission on 14 October 2004, page 35.

rejected the inclusion of these elements in the recovery of a monthly price for ULLS[3]. Telstra does not agree. However, in order to ensure that the prices for PSTN services reflect the long run efficient costs of providing these services, Telstra will seek to fully recover all PSTN costs in a competitively neutral manner from PSTN services including LCS and PSTN OTA.

18 Therefore, the proposed Undertaking prices are based on the assumption that full cost recovery of Telstra's efficient PSTN costs will occur through these mechanisms. In the event that Telstra's proposed prices for these other PSTN services are not accepted by the Commission, then Telstra reserves its right to increase the ULLS prices to allow for full cost recovery of long run efficient PSTN costs.

19 The three elements relevant to Telstra's total estimate of the ongoing costs of supplying the ULLS are:

- network costs; plus
- ULLS specific costs; and
- USO adjustment.

20 Each of these elements is discussed separately below.

E.2 Network Costs

21 The ULLS network costs have been calculated using the PIE II model[4]. The model determines, on the basis of relevant inputs, including traffic volumes and customer location, the network elements that would be necessary to construct a PSTN. The PIE II model is a forward looking cost model and encapsulates Telstra's assumptions about the infrastructure that is required to efficiently deliver a range of PSTN telephony services, including PSTN originating and terminating services (OTA), local carriage service (LCS) services and the ULLS. A full description of the PIE II model is provided in Annexure B.

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[3] See ACCC 2005, Assessment of Telstra's ULLS and LSS monthly charges undertakings, Draft Decision, August ("**August Draft ULLS/SSS Monthly Decision**").

[4] Such models are commonly referred to as Total Element Long Run Incremental Cost (TELRIC) models or Long Run Incremental Cost (LRIC) models. All essentially do the same thing in terms of estimating the costs associated with different elements of the PSTN and then allocating these element costs to individual services. As such, the PIE II model provides a reasonable estimate of TSLRIC.

E.2.1 PIE II model criticisms

22 Telstra notes that the Commission has made a number of criticisms of Telstra's PIE II model in its draft decision on Telstra's previous ULLS undertaking (**"Draft Decision"**)[5]. Telstra believes that these criticisms made by the Commission are unfounded and, as a result, the conclusions that the Commission has reached are incorrect.

23 The Commission's first criticism relates to the transparency of and the ability to adjust assumptions and inputs used in the PIE II model. The Commission believes that the model is opaque and Telstra has an onus, which the Commission says has not been discharged, to make a simpler model or sufficient documentation available[6]. The Commission also believes that Telstra's PIE II model has been presented as a "take it or leave it" proposition which prevents the Commission and access seekers from adjusting the model. On this basis, the Commission considered that the PIE II model did not provide a reasonable estimate of PSTN costs.

24 Telstra readily accepts that the PIE II model is complex. However, any reasonable model that seeks to accurately reflect a telecommunications network, such as that of Telstra, must necessarily be complex. Complexity cannot be a reason for rejecting it. Telstra has also gone to great lengths and cost to make the PIE II model available to all interested parties, to provide detailed documentation and to assist with hardware and software problems encountered by parties. Telstra will continue this process with the updated version of the PIE II model used to estimate the TSLRIC of ULLS for the current Undertakings. Telstra's efforts in this regard go well beyond what was provided by the Commission with respect to the NERA model that was used by the Commission to set PSTN prices in the past – for example, the Commission did not provide a copy of the NERA model to Telstra or access seekers to allow them to scrutinise the model but rather only made it available for a very limited viewing session on computers at the Commission's premises.

25 Further, the Commission appears to misunderstand the nature of the input parameters and assumptions in the PIE II model. As the Commission is aware, it is important that the input parameters in the model be consistent and it is often impossible to adjust one parameter without impacting on others. Further, the model

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5 ACCC 2005, Assessment of Telstra's ULLS and LSS Monthly Charge Undertakings, Draft Decision, August, Section 6.4 and Appendix E. Telstra notes that the Commission issued its Final Decision – Assessment of Telstra's ULLS and LSS Monthly Charge Undertakings on 21 December 2005 ("**Final Decision**"). For the purpose of these Undertakings, Telstra will deal with any relevant issues stemming from the Final Decision in a supplementary submission in due course.

6 Draft Decision, Appendix E, p 91 and 92.

was not built to accommodate some alterations in underlying assumptions such as changing from a scorched node to a scorched earth model. However, the Commission is incorrect in its claims that inputs and assumptions in the model cannot be changed. In fact, the Commission itself changed a number of assumptions to arrive at its estimate of ULLS network costs for the purposes of its Draft Decision.

26 Finally, the Commission says that Telstra has not adjusted the PIE II model in response to criticisms made of it. This is irrelevant to the Commission's consideration as to whether the Undertakings Price is reasonable pursuant to the statutory criteria. The reason that Telstra has not made these adjustments is that Telstra disagrees with them. Telstra believes it is entitled to use input parameters and assumptions in its model that it believes are most accurate.

27 The Commission's other criticisms are:

a) The Commission claims that it is far from clear that rectilinear distance will be appropriate. However, the Commission does not offer any other alternative and ignores the evidence that Telstra has provided on this issue[7].

b) The Commission lists Telstra's optimisation of trench distances as a concern, however, given that the MST algorithm employed by Telstra minimises trench distances and trench costs account for the majority of CAN costs, it is difficult to understand that concern. While it would be possible to also optimise copper distances in the PIE II model, this would have a negligible impact on the model results and would add a huge layer of complexity to the model, which according to the Commission, is already too complicated.

c) The Commission claims that Telstra's use of pre-determined engineering rules does not necessarily produce an optimal network. A TSLRIC model cannot be built without engineering rules. Such rules were employed by the Commission's own consultants in the development of a TSLRIC model for the Commission. As to the Commission's suggestion that Telstra has not justified these rules, Telstra refers the Commission to the 2003 Mitchell Report[8] and Dr Mitchell's report in Annexure D to this submission, which examine in detail Telstra's network provisioning rules employed for PIE II.

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[7] Mitchell 2003, Appropriateness of Telstra's Cost Modelling Methodology, Report of Dr Bridger Mitchell, Annexure B to Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003 (2003 Mitchell Report) and Kennet and Mitchell 2005, Confidential Commentary on PIE II Model Assumptions, May.

[8] Mitchell 2003, Appropriateness of Telstra's Cost Modelling Methodology, Report of Dr Bridger Mitchell, Annexure B to Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003.

d) The Commission states that it has concerns regarding the manner in which the operation and maintenance ("**O&M**") cost percentages are calculated within the model. The Commission also has concerns regarding the use of actual costs to calculate O&M percentages and the extent to which Telstra makes adjustments for the efficiency of these costs.

e) Telstra does not understand the Commission's confusion over the calculation of O&M percentages in PIE II, as they are clearly set out in Telstra's description of the PIE II model[9]. As for adjusting for the level of efficiency of actual costs, Telstra excludes O&M costs related to legacy technology from its calculation of the O&M percentages and applies those percentages to the efficient capital costs. This approach is consistent with that used in other jurisdictions and, as set out in Telstra's supporting material on the PIE II model, the resulting O&M percentages are broadly consistent with those used in TELRIC models in the US (see Annexure E to this submission and the 2003 Mitchell Report).

f) Regarding network planning costs, the Commission believes that these should be excluded from the cost pool, as Telstra's costs of planning its network are long recovered. To include network planning costs would, the Commission says, result in Telstra recovering costs it does not actually incur. This is incorrect. Network planning is not a once-off exercise. Telstra incurs network planning costs on an ongoing basis in the development and maintenance of its network and indeed is currently in the midst of a major assessment and planning exercise. Furthermore, as Telstra has explained a number of times, these costs are not duplicated in the PIE II model as the Commission continues to claim[10].

g) The Commission believes that the level of trench sharing in new estates should reflect the cumulative effect of Telstra's ability to share trenches in the past as well as its future ability to share trenches over the regulatory period. In Telstra's view, this is clearly inconsistent with the Commission's own views on the TSLRIC concept, which requires the network to be costed as if it were rebuilt today. It is inconsistent for the Commission to embrace this concept when arguing that efficiencies in O&M and network architecture should be built into the model, but abandon the concept when determining the appropriate treatment of trench sharing.

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[9] See, for example, Bridger Mitchell, Appropriateness of Telstra's cost modelling methodology, 28 May 2003 (Annexure B to Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003, 31 July 2003) and Mark Kennet and Bridger Mitchell, Confidential Commentary on PIE II Model Assumptions, May 2005 .

[10] See for example, the Statement of Andrew Briggs dated 26 May 2005, March Submission (Annexure B).

28 Finally, given the extent of the concerns that the Commission has raised with respect to Telstra's PIE II model, Telstra does not understand why the Commission has not reverted to its own TSLRIC model for estimating these costs. As the Commission is aware, the total CAN cost pool does not change substantially over time and, if anything, is increasing due to the rising costs associated with CAN deployment. Therefore, if anything, the Commission's own TSLRIC model built based on 1997/98 inputs, would understate today's CAN costs. If the Commission were to adopt its own model, it would result in ULLS network costs of $33 per line per month (see section E.2 below), which is higher than the price proposed in the Undertakings.

29 In Annexure E to this submission, Telstra responds further on the issue of network costs and the Commission's concerns with the PIE II model. Telstra also notes that it has previously provided the Commission with detailed explanations and justification for the inputs and assumptions it has used and why these are reasonable[11].

E.2.2 Network costs based on PIE II Model

30 The PIE II model was run based on 2004/05 inputs, except for the Weighted Average Cost of Capital ("**WACC**"), the price indices used to update the value of assets and in the annuity calculation. The WACC estimate for 2004/05 was replaced with the WACC estimated for each of the years of the Undertakings. The model was run with two values for the WACC, one a point estimate and another adjusted upward to address the asymmetry in the social costs of estimation error. The estimation of the WACC is discussed in more detail below and in Annexure C. The price trend used in the annuity calculation is the same as that used to roll-forward the annual costs per service, which is discussed below.

31 Price indices were constructed for each of the major asset categories relevant in the costing. The price indices used are presented in a table below in terms of historical compound annual growth rates (CAGR) over 3 years. For a number of asset categories the indices constructed for the purposes of producing the Current Cost Accounts under Limb 1 of Accounting Separation have essentially been used, albeit with some modification. The price indices drawn from the Current Cost Accounts are based on a split between labour and materials. The splits are determined by monitoring relevant construction projects and capturing the level of materials and labour employed. The splits were first calculated in respect of 2002/03 and it is intended that they will be implemented on a three year rolling average. The splits

[11] See for example, the March Submission, Annexure B.

used in constructing the indices below are based on the average over 2002/03, 2003/04 and 2004/05.

32 The labour component of the Current Cost Account indices was based on various measures of average weekly ordinary time earnings (AWOTE) published by the Australian Bureau of Statistics (ABS) either for the construction sector, the communications services sector or across all industries. For this purpose the Wage Cost Index also published by the ABS has been used as a more reliable measure of the underlying wage movements in the relevant industries given the widespread view that the AWOTE measures are distorted by compositional and other shifts which should not form part of a TSLRIC-based costing.

33 Where there was no Current Cost Account index for a particular asset category information from the Annual National Accounts published by the ABS was used to construct price deflators for various categories of capital stock used specifically by the communication services sector. Although these constructed price deflators are broader than just the asset category to which they have been applied, they have the advantage that they relate solely to assets used by the communications services sector. No price escalator was applied to land and buildings.

34 The price indices for each asset category used to revalue assets and to annualise costs in the PIE II model are presented in the table below.

Price indices	**Price indices 3 year CAGR**
Main cable	[c-i-c]
Main conduit & trenching	[c-i-c]
Distribution cable	[c-i-c]
Distribution conduit & trenching	[c-i-c]
Network land & buildings	[c-i-c]
Indirect capital	[c-i-c]

35 The monthly network costs for ULLS on a per service basis from the application of this approach are presented in the table below.

		2005/06	**2006/07**	**2007/08**
WACC point estimate	Network unit cost	[c-i-c]	[c-i-c]	[c-i-c]
WACC with uplift of 1 sd	Network unit cost	[c-i-c]	[c-i-c]	[c-i-c]

Weighted Average Cost of Capital for ULLS Network Costs

36 It is a fundamental principle of finance and of business that investments are made in projects only if there is an expectation that an appropriate reward will be earned to compensate for any risk that the project entails. The higher the risk, the higher the expected return needs to be to entice investors.

37 The principle that risk will require an appropriate expected return applies to both of the major sources of capital to a business, that is, debt and equity. The process of determining the appropriate expected return for a business builds upon the estimates of the appropriate return to each source of capital. Then these costs of capital are weighted by their respective contributions to the total capital. The resulting cost of capital for the business is referred to as the Weighted Average Cost of Capital or the WACC.

38 Telstra commissioned Professor Jerry Bowman to estimate a WACC for the network component of ULLS costs for each of the years that the TSLRIC model was run, 2005/06 to arrive at a TSLRIC-based price for January to June 2006, 2006/07 and 2007/08. In addition to estimating the point estimate of the WACC, Professor Bowman has also estimated the WACC adjusted upward by 1 standard deviation.

39 Professor Bowman's suggestion that all WACC parameters should have a one standard deviation range estimated, as well as a best estimate, is based on his view (with which Telstra agrees) that the WACC is estimated in an uncertain environment and that virtually all of the WACC components are estimated with error. As a result, there are three possible outcomes for the chosen point estimate WACC:

(a) the chosen point estimate WACC may reflect the "true" cost of capital, resulting in the provider of the services will earning a normal profit (that is, will just cover its WACC) and having adequate incentives for further investment;
(b) the chosen point estimate WACC may be set above the "true" cost of capital, resulting in the provider earning excess economic profits and having clear incentives for further investment (and potentially for some excess investment) including in maintenance and service quality; or
(c) the chosen point estimate WACC may be set below the "true" cost of capital, resulting in the provider earning below normal economic profits and not having an incentive to invest or to satisfactorily maintain the services it provides.

40 Professor Bowman notes that the first of these possible outcomes is clearly efficient, whilst the other two are not. If the net long-term costs to society were the same for over estimating as for under estimating the WACC, then it would be appropriate for the Commission to set a WACC at its best point estimate. However, they are not equal. It is widely agreed that in a regulatory environment, the long –term social costs of slightly under estimating the cost of capital are higher than the long-term social costs of slight over estimation.

41 Setting the WACC even a little too low can have serious long-term economic consequences, including threatening the viability of the provision of services. To the extent to which users have few alternative sources to which they can turn (and the availability of those sources will be further undermined by the setting of too low a ceiling on the regulated prices), then consumer and social welfare will suffer. On the other hand, the consequences of setting the WACC slightly too high are much less, especially beyond the short-run. This is because consumers will derive at least some benefit from the higher quality and availability of service, as the risks of disruptions to service will be minimised. At the same time, too high a WACC may be partly self-correcting, as it will induce entry of and expansion by infrastructure-based competitors. Accordingly, the consequences of estimation error in the WACC are very asymmetric. The issue then becomes how to choose a WACC that balances the asymmetric costs.

42 To do this, Professor Bowman suggests that all parameters have one standard deviation range estimated, as well as a best estimate. A judgement then needs to be made regarding the level of confidence appropriate to achieve a balancing of the social consequences of an error in setting WACC. From this, an appropriate WACC can be determined. In Professor Bowman's view, the appropriate nominal post-tax vanilla WACCs for the network component of ULLS are [c-i-c], [c-i-c] and [c-i-c] for 2005/06, 2006/07 and 2007/08, respectively.

43 The table below presents Professor Bowman's WACC parameter ranges for both the point estimate of the WACC and the uplifted WACC. As discussed above, Telstra has run the PIE II model using both values of the WACC to determine a range of TSLRIC estimates.

		2005/06		2006/07		2007/08	
Parameter	**Distribution**	**Point**	**Range**	**Point**	**Range**	**Point**	**Range**
Risk free rate	Normal	[c-i-c]		[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Market risk premium	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Debt ratio		[c-i-c]		[c-i-c]		[c-i-c]	
Debt risk premium	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Debt issuance cost	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Cost of debt capital		[c-i-c]		[c-i-c]		[c-i-c]	
Debt beta		[c-i-c]		[c-i-c]		[c-i-c]	
Tax rate		[c-i-c]		[c-i-c]		[c-i-c]	
Franking credits	Bi-modal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Asset beta	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Equity beta	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Equity issuance cost	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Cost of equity capital		[c-i-c]		[c-i-c]		[c-i-c]	
WACC point estimate		[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
WACC with uplift of 1sd		[c-i-c]		[c-i-c]		[c-i-c]	

44 The full report of Professor Bowman is provided as Annexure C. That report sets out in detail the calculation of the WACC and its various input parameters.

E.3 ULLS specific costs

45 ULLS specific costs are those costs that Telstra incurs as a result of supplying the ULLS to access seekers. Telstra would not incur these costs absent its obligation to provide the ULLS. This section sets out a description of the components that comprise ULLS specific costs, the calculation of the monthly ULLS specific costs per service, the WACC

used to annualise the ULLS specific capital costs and the volumes used to unitise the ULLS specific costs.

Costs included in the ULLS specific cost pool

46 The categories of costs included in the ULLS specific costs and a description of these costs are as follows:

- The capital costs associated with developing the ULL Carrier Interface System ("**ULLCIS**") in accordance with industry requirements and the implementation of changes to a number of Telstra's existing systems to incorporate to support ULLS, including development processing costs and accommodation and internal communications of IBMGSA staff. A volume discount received from IBM GSA for the ULLS development costs is also taken into account.

	1999/00	**2000/01**	**2001/02**	**2002/03**
Labour Costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Less discount from IBM	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Plus associated processing costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Plus other costs of IBM GSA	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- The capital costs associated with new ULLS deployment classes. The Australian Communications Industry Forum ("**ACIF**") recently published the new code, ACIF C559:2005 ULLS Network Deployment Rules and the associated standard AS/ACIF S043.2.2005 Australian Standard Requirements for customer equipment for connection to a metallic local loop interface of a Telecommunications Network Part 2, to coordinate the introduction of faster broadband Internet services such as video on demand and video conferencing[12]. Telstra systems and processes require amendments to ensure the new deployment classes are available in the provisioning systems.

- The capital costs associated with ULLS enhancements. This project delivers operational efficiencies to meet the current expected growth of ULLS. This will be

[12] The Code was ratified by ACIF on 13 April 2005 and registered by the ACA on 23 May 2005.

achieved through system changes that both remove the need for manual activities and provide improved cost efficiency for ULLS provisioning. This will assist regulatory compliance by reducing the volume of Category D port segments falling to manual action and diminish the risk of missing the ACIF 2 Hour Industry Service Level Agreement.

- The capital costs associated with SSS to ULLS connection processes requested by Access Seekers. This project will enable access seekers to migrate SSS based end users to ULLS using the same point of interconnect ("**POI**"). This requires upgrades to NPAMS Telstra cable record management system and the ULLCIS to be able to return the Full National Number ("**FNN**") associated to the in-use SSS POI for validation, thus ensuring that the FNN of the in-use POI is the same as the FNN of the request.

- The capital costs associated with provision of SSS on ULLS upper spectrum. This project will enable upper spectrum provisioning/transfer/return when the ULLS underpins the use of the copper pair to allow Telstra or another ISP to use the ULLS upper spectrum for their products.

- The Capital costs for the above projects are set out in the following table:

	2004/05	**2005/06**	**2006/07**	**2007/08**
New ULL Deployment Class, PCMS Codes	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
ULLS Enhancements	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
SSS to ULLS Connection Process:		[c-i-c]	[c-i-c]	[c-i-c]
SSS on ULLS Upper Spectrum		[c-i-c]	[c-i-c]	[c-i-c]

- The Operating costs associated with the projects are set out in the following table:

	2004-2005	**2005-2006**
New ULL Deployment Class, PCMS Codes	[c-i-c]	[c-i-c]
ULLS Enhancements	[c-i-c]	[c-i-c]
SSS to ULLS Connection Process		[c-i-c]
SSS on ULLS Upper Spectrum		[c-i-c]
Total Opex	[c-i-c]	[c-i-c]

- The operating and maintenance costs of IT systems including mainframe and mid-range production processing, ULLCIS maintenance and other maintenance labour and processing costs paid to external contractors.

	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Mainframe and mid-range production processing	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Maintenance labour	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Maintenance processing	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
ULLCIS maintenance	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

- The operating costs associated with the front-of-house connection group which handles inquiries from access seekers, processes the ULLS orders and undertakes related tasks.

Year	Total Labour Cost
2000/01	[c-i-c]
2001/02	[c-i-c]
2002/03	[c-i-c]
2003/04	[c-i-c]
2004/05	[c-i-c]
2005/06	[c-i-c]
2006/07	[c-i-c]
2007/08	[c-i-c]

- The operating costs associated with wholesale product management, estimated as the cost of two full-time product managers.

- The indirect operating and maintenance costs associated with the front of house connection group and the product managers. The indirect loading used is [c-i-c] based on data from the second half of 2003/04.

Calculation of monthly ULLS specific costs per service

47 Telstra has calculated the ULLS specific costs as follows:

48 The capital costs identified in the section above are annualised using the tilted annuity formula and the WACC for ULLS specific costs. The estimation of the WACC for ULLS specific costs is discussed in detail below.

i) The annual operating costs identified in the section above were added to the annualised costs to arrive at total annual cost for each year from 2000/01 to the end of the Undertakings period being 2007/08.

ii) The annual costs that have been recovered from the ULLS between 2000/01 and to the end of December 2005 were calculated by multiplying actual demand in each year by relevant contribution made to ULLS-specific costs in each period. For the period to December 2005 where actuals are not available, forecasts were used.

iii) The annual costs recovered to date calculated as set out in (iii) were deducted from the total annual costs for each year from 2000/01 to 2004/05 and the 6 months from 1 July 2005 to 31 December 2005 to arrive at unrecovered ULLS specific costs prior to 1 January 2006.

iv) The present values (as at 1 January 2006) of the unrecovered ULLS specific costs across all years from 2000/01 to 2004/05 were calculated and these values were summed to arrive at the present value of unrecovered ULLS specific costs.

v) The present value (as at 1 January 2006).of demand for the period of the undertakings was calculated.

vi) The amount derived in (v) was divided by the amount derived in (v) to arrive at the contribution toward unrecovered ULLS specific costs in each Undertaking period.

vii) The annualised costs relating to each period of the undertaking were divided by the current forecast level of demand for each year of the undertaking to arrive at the annual ULLS specific costs for ULLS for each undertaking period.

viii) The results of the amount calculated in (vii) and (viii) were summed to arrive at the total contribution to ULLS specific costs in each undertaking period.

49 Telstra believes that it is consistent with its legitimate business interests and economic efficiency to include the ULLS specific cost which it had not recovered prior to 1 January 2006, in the cost pool for the undertaking period.

50 This approach results in costs being recovered in line with the ability of the asset to yield revenues over time. This principle has been recognised by both the Commission and the Australian Competition Tribunal ("**ACT**") in decisions where they have permitted negative depreciation, or depreciation other than straight line depreciation.[13] Similarly, in the context of access to FOXTEL's digital set-top units, the Commission[14] accepted that unrecovered costs of acquiring FOXTEL's installed base of analogue customers (known as IBAC costs) should be included in the capital cost pool for recovery in the digital access price. It reasoned that FOXTEL would have to spend significantly more to acquire a digital customer base were it not for the installed analogue base, so the costs of acquiring that base should be considered part of an efficient forward-looking cost base. While the Commission's decision was subsequently overturned, the ACT expressly endorsed its inclusion of IBAC in the cost base.[15]

51 It would be inconsistent with the statutory criteria to allow access seekers to escape contributing to the recovery of costs incurred on their behalf merely because those costs were arbitrarily allocated to periods when demand was low, even though those costs yielded benefits which continued into periods when demand was high and was sufficient to recover the costs previously not recovered. To force these prices below a level that recovers those costs over time would undermine the incentives for socially efficient investment and would amount to giving access-seekers a free ride.

52 Thus it is economically efficient and consistent with the statutory criteria that Telstra be permitted to recover previously unrecovered ULLS specific costs.

Weighted Average Cost of Capital for ULLS Specific Costs

53 In Telstra's view, it is appropriate that a separate WACC be estimated in respect of ULLS specific assets as opposed to the ULLS network assets. These two categories of assets entail very different risks and therefore demand a different cost of capital. For example, the assets associated with the ULLS network such as trenching and cable are tangible, long-lived, assets that display economies of scale and scope and have a number of alternative uses. By contrast, the ULLS specific assets such as IT systems

[13] Australian Competition and Consumer Commission, "Draft Statement of Principles for the Regulation of Transmission Revenues", 27 May 1999, p 47; Australian Competition and Consumer Commission, Final Decision: Access Arrangements by AGL Pipelines (NSW) Pty Ltd for the Central West Pipeline, June 2000, page 69; Australian Competition Tribunal, Application by East Australian Pipeline Limited [2004] ACompT 8 at para 38

[14] ACCC, Section 152ATA Digital Pay TV Anticipatory Individual Exemption Application lodged by FOXTEL Management Pty Limited, Final Decision, December 2003.

[15] ACT, File no 11 of 2003, Application for Review of the Decision of the Australian Competition and Consumer Commission made on 12 December 2003 on the Section 152ATA Digital Pay TV Anticipatory Individual Exemption Application lodged by Foxtel Management Pty Limited, Reasons for Decision, 23 December 2004 at para 326

and software are intangible in nature, have short asset lives and limited alternative uses. For this reason it is necessary to estimate different WACCs for each asset.

54 For the reasons set out above, the WACC in respect of ULLS specific assets should be adjusted for the asymmetry associated with estimation error. The table below sets out the relevant input parameters used to calculate, both the point estimate of the ULLS specific WACC and that WACC as adjusted upward by 1 standard deviation to reflect the asymmetric social costs associated with estimation error.

		2005/06		2006/07		2007/08	
Parameter	**Distribution**	**Point**	**Range**	**Point**	**Range**	**Point**	**Range**
Risk free rate	Normal	[c-i-c]		[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Market risk premium	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Debt ratio		[c-i-c]		[c-i-c]		[c-i-c]	
Debt risk premium	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Debt issuance cost	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Cost of debt capital		[c-i-c]		[c-i-c]		[c-i-c]	
Debt beta		[c-i-c]		[c-i-c]		[c-i-c]	
Tax rate		[c-i-c]		[c-i-c]		[c-i-c]	
Franking credits	Bi-modal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Asset beta	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Equity beta	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Equity issuance cost	Normal	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Cost of equity capital		[c-i-c]		[c-i-c]		[c-i-c]	
Vanilla WACC		[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Vanilla WACC with uplift of 1sd		[c-i-c]		[c-i-c]		[c-i-c]	
Pre-tax WACC		[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Pre-tax WACC with uplift of		[c-i-c]		[c-i-c]		[c-i-c]	

1sd						

55 The full report of Professor Bowman on the WACC for the ULLS specific component of ULLS is provided as Annexure C.

Volume of ULLS services used to calculate ULLS specific costs

56 The table below presents both the actual volume of ULL services to the end of 2004/05 and Telstra's forecasts from 2005/06 to 2008/09. The actuals together with the forecast volumes to the end of December 2005 are used to calculate the level of ULLS specific costs recovered prior to the Undertaking period and the forecasts from 1 January 2006 to 2008/09 are used to unitise the ULLS specific costs. The year average SIOs are used for this calculation except for the six month period January to June 2006, where the average for this period is used. These figures are based on Telstra's official quarter 1 forecasts for 2005/06, which were the most up to date figures when the TSLRIC modelling was undertaken.

	Total SIO (EOY)	**Year average SIOs**
2000/01	[c-i-c]	[c-i-c]
2001/02	[c-i-c]	[c-i-c]
2002/03	[c-i-c]	[c-i-c]
2003/04	[c-i-c]	[c-i-c]
2004/05	[c-i-c]	[c-i-c]
2005/06	[c-i-c]	[c-i-c]
2006/07	[c-i-c]	[c-i-c]
2007/08	[c-i-c]	[c-i-c]

57 [c-i-c]

58 [c-i-c]

59 [c-i-c]

60 This method of forecasting used to date has resulted in forecasts that tend to overestimate the actual level of demand, but provide far more accurate estimates than those used by the Commission.

61 It should also be noted that Telstra's total TSLRIC estimates are not as sensitive to ULLS take-up as in previous periods, as ULLS-specific costs on a per unit basis comprise a relatively small proportion of the total ULLS unit cost estimates. For example, even if Telstra's forecasts are under-estimated demand by 50%, this reduces the TSLRIC of ULLS by approximately $1 per service.

E.4 USO adjustment

62 Under the USO scheme, industry players are required to make a contribution to the difference between the revenues that Telstra receives and the efficient long run avoidable costs of providing the standard telephone service to customers in high cost areas. This net cost is referred to as the Net Universal Service Cost or the "NUSC". Telstra takes the NUSC contribution into account in the calculation of ULLS network costs to ensure that the efficient long run costs of the CAN are not over-recovered through the charges for the ULLS.

63 As the ULLS network costs are costs associated with the copper CAN, it is necessary to identify the relevant part of the NUSC. The cost side of the NUSC includes copper CAN, other CAN technology and some local switching and transmission costs. The last detailed estimate of the net cost of the USO that allows these individual elements to be identified was undertaken by the Australian Communications Authority ("**ACA**") for 1997/98. This analysis identified that 23% of the total Universal Service Operator ("**USO**") cost was related to copper CAN. The breakdown of costs across each component of the USO is presented in the table below.

Cost component	Share of total USO cost
Copper CAN	[c-i-c]
Other CAN	[c-i-c]
Bearer	[c-i-c]
Operating expenses	[c-i-c]
Switch	[c-i-c]
Payphones	[c-i-c]
Claim preparation	[c-i-c]

64 Therefore, 23% of the total NUSC in each year of the Undertakings is deducted from the ULLS network costs. The total NUSC amount and the amount deducted from the ULLS costs is presented in the table below.

	Total NUSC	Copper CAN share	Copper CAN share per service per year	Copper CAN share per service per month
2005/06	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
2006/07	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
2007/08	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

F. REASONABLENESS OF THE PROPOSED LEVEL OF UNDERTAKING CHARGES

65 Telstra believes that the proposed Undertakings Prices are consistent with the legislative criteria set out in Part XIC of the TPA for the following reasons:

- The prices do not exceed the efficient costs estimated using Telstra's PIE II model. The PIE II model has been reviewed by an international expert economist, Dr Bridger Mitchell, who concludes that the PIE II model is forward looking, incorporates the principles for TELRIC modelling that have been developed and applied in international practice, and appropriately calculates TSLRIC costs.

- The prices are below the efficient costs estimated using the Commission's only available TSLRIC estimates of the ULLS.

- The charges are well below Telstra's current costs of ULLS and only slightly above Telstra's historic ULLS costs.

F.1 Expert review of PIE II

66 Given that the level of charges proposed in the Undertakings rely on Telstra's PIE II model, Telstra commissioned a review of the PIE II model, including benchmarking against efficient long-run cost models used internationally. This review was undertaken by Dr Bridger Mitchell, who is an expert economist with extensive international experience in telecommunications cost modelling. Dr Mitchell's report is Annexure D.

67 In summary, Dr Mitchell concludes that the PIE II model is based on best-practice network technology. Provisioning of each network element is based on efficient engineering principles that take into account subscriber and traffic density. Asset prices and operating, maintenance and indirect expenses are estimated based on recent experience with current-technology equipment.

68 Further, Dr Mitchell states that in his opinion that Telstra's cost-estimating methodology and the PIE II model appropriately incorporate the principles for TELRIC modelling that have been developed and applied in international practice.

69 On specific modelling issues Dr Mitchell concludes that:

- The scope of the network modelled in the PIE II model in terms of services included is consistent with the legislative objective of promoting competition, by ensuring that the prices for services used by access seekers are based on the same costs as are allocated to Telstra's retail PSTN services.

- The PIE II model is consistent with the forward looking principles of TSLRIC as it uses the most current forecasts available for traffic and customer numbers.

- Telstra's PIE II model is based on best-in-use technology principles as compared with other models. In fact, the PIE II model has advanced the modelling of best-in-use technology by expressly incorporating radio technology and comparing the costs of access alternatives for remote areas. In each rural exchange serving area, the model selects between the least-cost cable-based and radio-based access technologies. In this respect, the PIE II model provides for a more efficient network than has been modelled elsewhere.

- The calculation of trench distances in the PIE II model, which drive a large proportion of ULLS network costs, is likely to result in conservative estimates in some geographic areas compared with TSLRIC models in other jurisdictions.

- The use of price trends to project forward the annual capital costs in the PIE II model is appropriate as it improves the reliability of estimates of the annual capital costs.

- Telstra's estimation of operating and maintenance expenses are based largely on the O&M expenses incurred for current generation assets. Dr Mitchell opines that this approach is the most nearly forward-looking calculation that can be extracted from accounting models of operating experience. He finds that the expense factors estimated for the PIE II model are broadly consistent with TSLRIC models in the US, bearing in mind the irreducible differences in expense categories produced by different accounting practices in Australia and the US. Overall, Dr Mitchell opines that the PIE II model's expense factors are appropriate for calculating the efficient costs of the ULLS.

- For the estimation of indirect capital costs and operating and maintenance expenses, Dr Mitchell concludes that the methodology used in the PIE II model is appropriate and consistent with international practice.

F.2 Commission estimates of network costs (the NERA Model)

70 In the Draft Decision, the Commission sets out a range of concerns it has regarding the PIE II model. It concludes that "PIE II is therefore not accepted by the Commission as a means of determining prices for the ULLS in accordance with the statutory

criteria"[16]. While Telstra disagrees with the Commission's conclusion, it is clear that unless the Commission changes its view on the PIE II model for the purposes of assessing the Undertakings, it will need to rely on an alternative approach to assessing the reasonableness of Telstra's network cost estimates on which the Undertaking Prices are based. The only other available TSLRIC estimate of the ULLS network costs is that produced by the Commission on the basis of adjustments to its own TSLRIC model of the PSTN, the n/e/r/a model. As demonstrated below, the network costs produced by the n/e/r/a model are between [c-i-c] and [c-i-c]higher than those being claimed by Telstra as part of its Undertakings Prices.

71 In March 2002, the Commission published its Final Report on the Pricing of Unconditioned Local Loop Services, which included the Commission's assessment of ULLS network costs. To model the ULLS network costs, the Commission employed the TSLRIC n/e/r/a model which it commissioned to assess Telstra's PSTN OTA undertakings. The Commission stated that it modified the model in a number of ways to ensure that it closely models the efficient costs to Telstra of supplying the ULLS at lower levels in the network, compared to the case for PSTN OTA. These modifications included:

- the use of line distributions by areas based on a four band structure determined by Telstra, based on line densities;
- the exclusion of costs associated with line cards which are not relevant to the ULLS;
- a reduction in IRIMs and an increase in RSS/RSUs to better reflect Telstra's current numbers of these exchanges in the network and in the areas where ULLS is to be provided;
- an adjustment to average route distances in the model to accord with the revised configuration of exchanges;
- the inclusion of extra modules in the model to separately estimate ULLS costs at an IRIM and a RSS/RSU as the relative costs of supplying the ULLS at these exchange types differ significantly; and

[16] ACCC 2005, Assessment of Telstra' ULLS and LSS Monthly Charge Undertakings, Draft Decision, August, p 94.

- minor modifications to the treatment of trench and site sharing in the model[17].

72 The results of this extensive analysis were unit costs for each of the four ULLS bands for 2000/01 and 2001/02. These results are presented in the table below. The Commission adjusted n/e/r/a model also implies that the total network cost pool declines annually (based on their 2000/01 and 2001/02 figures) by [c-i-c] per year[18]. Applying this annual change to arrive at values for future years suggests that network costs would be [c-i-c] by 2005/06, [c-i-c] by 2006/07 and [c-i-c] by 2007/08.

73 By multiplying these unit costs out by the total volume of estimated number of ULLS capable lines it is possible to calculate the total ULLS network cost pool resulting from the n/e/r/a model for the years covered by the Undertakings. This results in a total cost pool of [c-i-c] by 2007/08, [c-i-c] higher than the ULLS network cost pool being claimed by Telstra in its Undertakings for the same year.

Band	2000/01	2001/02	2005/06	2006/07	2007/08
Band 1	[c-i-c]	[c-i-c]			
Band 2	[c-i-c]	[c-i-c]			
Band 3	[c-i-c]	[c-i-c]			
Band 4	[c-i-c]	[c-i-c]			
Average network cost per service per month	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total Network Cost Pool			[c-i-c]	[c-i-c]	[c-i-c]
% difference between Commission network cost pool and Telstra cost pool (point estimate WACC)			[c-i-c]	[c-i-c]	[c-i-c]

F.3 Telstra's historic and current costs

74 To further demonstrate the reasonableness of the prices proposed in the Undertakings, Telstra has compared these prices to Telstra's own historic and current costs. Telstra's regulatory accounts are prepared in accordance with the record

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17 ACCC 2002, *Pricing of Unconditioned Local Loop Services, Final Report*, March, p30-31.

18 Telstra does not accept that the ULLS annual cost pool declines over time. Telstra estimates that the average annual increase in the upfront replacement cost of capital for ULLS is [c-i-c]. The Commission's reduction in average ULLS charges is also inconsistent with its own previously published estimates of TSLRIC for basic access (both ULLS and basic access are comprised predominantly of CAN costs) which indicated an annual increase in costs of [c-i-c]. See ACCC 2000, A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services, Table A2.1.7, p 65.

keeping rules determined by the Commission. The accounts are submitted to the Commission every six months and are audited annually. The most recent audited accounts available are for the 12 month period to 30 June 2005. Therefore, it is these accounts that have been used for comparison with Telstra's Undertakings Prices.

75 Both the historic and current cost versions of the regulatory accounts include the ULLS product supplied to external parties. These costs include both network costs and ULLS specific costs. The cost items for ULLS are taken directly from Capital Adjusted Profit Statement for the External Wholesale Business (CAP-External). The following adjustments were made:

- [c-i-c]
- [c-i-c]
- [c-i-c]

76 In Telstra's view, the historic costs need to be interpreted carefully with respect to the legislative criteria set out in Part XIC of the TPA. Historic costs do not provide a good approximation for the TSLRIC of the ULLS for a number of reasons. Most importantly, historic costs for the CAN (which make up the majority of the ULLS costs) will understate the forward-looking cost of building a new network to supply ULLS today. This is because many of the assets that are still in use in the CAN have been largely or completely depreciated as the depreciation schedules used reflect accounting not economic depreciation. In addition, the annual historic costs reflect the value of the assets at the time they were purchased. Given CAN assets are generally long-lived assets and the cost of replacing them is increasing over time, the purchase price of assets included in the historic accounts are well below the purchase price of those assets today.

77 For these reasons, the historic costs substantially understate the forward-looking cost of supplying ULLS and hence prices based on these costs would be unlikely to meet the legislative criteria, particularly the objective of encouraging efficient investment. Specifically, the Commission has supported TSLRIC as the appropriate pricing principle for declared services on the basis that it provides the appropriate incentives for future investment. In the Commission's view, reliance on TSLRIC promotes efficient 'build or buy' decisions, including because any other decisions of access seekers to build by-pass infrastructure will be based on the relative resource cost of doing so. Therefore, on this reasoning, if prices for ULLS were based on

Telstra's historic costs, they would substantially understate the long-run efficient cost of building by-pass infrastructure. As a result, access seekers that may be able to efficiently build their own infrastructure will be discouraged from doing so, as they could use Telstra's network based on prices that are well below TSLRIC.

78 The level by which historic costs understate the forward-looking costs of deploying infrastructure to supply ULLS today is evident when they are compared in a comparison with the current costs. In accordance with Limb 1 of Accounting Separation, Telstra is required to prepare a set of regulatory accounts in which assets are revalued to current cost terms or, in other words, the cost that would be incurred today to replace the assets with equivalent modern assets. For this reason, current costs are more consistent with the TSLRIC concept.

79 The current cost adjustments appear in the depreciation and cost of capital lines of the accounts, as these are the costs associated with the revalued assets[19]. As can be seen from the values in the table below, the current cost of ULLS for 2004/05 is [c-i-c]per service, [c-i-c]above the historic cost estimate and well above the level of costs that Telstra is seeking to recover from ULLS prices.

	Historic costs	**Current Costs**
Organisational costs	[c-i-c]	[c-i-c]
Product & customer costs (excluding installation)	[c-i-c]	[c-i-c]
Network costs (depreciation & maintenance)	[c-i-c]	[c-i-c]
Cost of capital	[c-i-c]	[c-i-c]
Total Annual Costs	[c-i-c]	[c-i-c]
Volumes	[c-i-c]	[c-i-c]
Unit costs per month	[c-i-c]	[c-i-c]

80 The above costs estimates demonstrate that Telstra's proposed prices for ULLS are reasonable. Even if the Commission has concerns about the efficiency of Telstra's legacy networks and systems (a concern that it has raised in the past with respect to comparisons of TSLRIC with Telstra's actual costs), it would be difficult to conceive of a reasonable efficiency adjustment that would drive the current costs of the ULLS below $30 per month.

F.4 Reasonableness of ULLS specific costs

81 Telstra's calculation of ULLS specific costs allocates ULLS specific costs to ULLS which is the service responsible for these costs being incurred. In Telstra's view, this

approach to calculating the ULLS specific costs is consistent with the legislative criteria.

82 First, this approach is consistent with efficient use of and investment in infrastructure. It is important from an economic efficiency perspective for access seekers to bear the costs associated with making ULLS available to them. If they do not bear these costs, or only bear part of them, then the result will be to encourage demand for ULLS even where this is not efficient. Access seekers will want ULLS to be provided even though it is cheaper and more efficient for services to be supplied by other means (including through Telstra's own supply). As a result, final services will not be supplied to customers in the most cost effective manner.

83 Second, Telstra's approach is consistent with efficient competition. Telstra's approach ensures that access seekers bear the costs they cause. If Telstra is instead required to bear and recover those costs itself, then access seekers would be in a position to compete against Telstra based on artificially low input costs. The result would be to drive down prices to levels that may benefit consumers in the short-term, but over the longer-term would limit Telstra's ability to recover the costs essential for ongoing efficient investment and innovation.

84 Third, Telstra's approach is consistent both with the interests of access seekers and Telstra's legitimate business interests. Access seekers bear costs for which they are responsible for and Telstra bears the costs that it incurs in providing the service to itself. The fact that Telstra's unit costs of self-supply are lower than access seekers ' does not alter this conclusion. Efficiencies associated with scale and vertical integration are legitimate cost efficiencies that Telstra should be permitted to pass on to its customers. In contrast, if costs were not borne by the parties who were responsible for them being incurred then this would be inconsistent with Telstra's legitimate business interests and would go well beyond respecting the interests of access seekers.

85 If Telstra were required to bear most or part of the ULLS specific costs then access seekers would face significantly lower ULLS prices, thus allowing them to set their retail prices at artificially low levels. Telstra, in turn, would be required to lower its retail prices in order to compete, regardless of whether these lower retail prices allowed full recovery of long-run efficient costs. If access seekers did not use the

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[19] Some of the other lines in the accounts also change as result of moving from historic to replacement costs, however, these differences are not a result of asset revaluation directly, but as a result of slightly different cost allocations that are applied as a result of the revaluation of assets.

lower ULLS prices to set artificially low retail prices then the distortion in the cost allocation would simply deliver a windfall profit to access seekers, at the expense of Telstra's shareholders and customers.

G. REASONABLENESS OF PROPOSED STRUCTURE OF PRICES

86 The Undertaking price is geographically averaged. Telstra's analysis of ULLS and the sustainability of cost recovery going forward, indicates that ULLS prices need to be averaged in order for Telstra to continue offering residential customers averaged retail prices, regardless of where those customers reside. Averaged ULLS charges also allow access seekers to viably offer services over ULLS in regional areas of Australia, something that is clearly not possible with deaveraged rates (at least so long as retail prices are required to be averaged). This will deliver a share of the benefits of ULLS-based competition to regional Australians.

87 Equitable pricing for all Australians is an important public policy objective[20], that Telstra believes should not be undermined by the Commission. For example, Minister Coonan has said*"[W]e are going to ensure that people in regional Australia are not disadvantaged in the line rental prices they pay compared with people living in metropolitan Australia. Parity arranged between city and country consumers will remain. We can adjust the price controls if it becomes necessary".*[21]

88 Furthermore, on 19 December 2005, Minister Coonan (together with Minister Minchin) announced that:

"To ensure ongoing price parity, the Government will also make more explicit Telstra's price parity obligation by including in the price controls a requirement that Telstra offer a basic line rental product at the same price across the country. This requirement will ensure that parity is maintained …"

"The Government has …also committed to equitable access to broadband services across the country"[22]

Effective requirement to charge uniform prices at the retail level

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[20] Senate Environment, Communications, Information Technology and the Arts Committee Estimates, Hansard Monday, 31 October 2005 as at (130)

[21] Senate Environment, Communications, Information Technology and the Arts Committee Estimates, Hansard Monday, 31 October 2005(at 130).

[22] Senator The Hon Helen Coonan and Senator The Hon Nick Minchin, Joint Press Release entitled "*Wholesale Access Prices for ULL and Retail Pricing Parity",* 19 December 2005

89 The effect of the government policy identified at paragraphs 87 and 88 is that Telstra is likely to be bound to charge uniform prices for at least basic access at the retail level. The Ministers' announcement of 19 December 2005 is clearly designed to ensure Telstra maintains nationally uniform call and access prices.

Sustainability of averaged retail prices for residential customers

90 Deaveraged ULLS prices would render the averaging of retail prices for PSTN voice and broadband services between different geographic regions unsustainable as ULLS penetration increases. To illustrate the magnitude of the disparity that would arise, the cost differentials between different areas based on the Commission's own estimates of ULLS network costs are $6/month in CBD areas, $12/month in Metro areas, $26/month in provincial areas and $143 in rural areas[23].

91 With such large differentials in place access seekers will concentrate their activities on CBD and Metro areas. It would be unviable for an access seeker to compete using ULLS in rural areas at the prices proposed by the Commission, making the declaration of ULLS in these areas redundant.

92 As access seekers would gain ULLS at relatively low prices in CBD and Metro areas, the margins in these areas would be competed down with Telstra being forced to follow in order to compete.

93 With margins in CBD and Metro areas forced down, an unregulated firm would increase prices in those areas the Commission itself acknowledge as high cost, in order to recover those costs. To the extent that the Government moves to constrain Telstra increasing prices in high cost areas, Telstra shareholders would bear the burden in the short-term, which is clearly inconsistent with Telstra's legitimate business interests. In the medium to long-term, the impact would be to dramatically reduce Telstra's ability to invest, which is contrary to the long-term interests of end-users.

94 The above discussion shows that equitable pricing at the retail level is unsustainable where ULLS prices are de-averaged.

Competitive neutrality

95 Assessed in terms of the principle of competitive neutrality, deaveraged ULLS prices alongside uniform retail prices provide access seekers with an artificial advantage (in

the sense of an advantage that is not based on access seeker costs, but merely on a regulated inconsistency between retail and wholesale prices) over Telstra in the metropolitan market. This violates the principle of long-run competitive neutrality that is relevant pursuant to the legislative criteria to which the Commission must have regard.[24]

96 Long run competitive neutrality requires that (1) equally efficient firms have the same opportunity to recover their total costs, and that (2) equally efficient access seekers and access providers are neither advantaged or disadvantaged in their respective roles in making market entry/exit and investment decisions.[25] This in turn ensures that the most efficient provider prevails in the market, meaning that services are provided at the lowest resource cost to society.

97 In both these respects, given the retail constraints on basic access faced by Telstra alone, Telstra would have less opportunity to recover its total costs and access seekers (including those that are inefficient) would be provided with an advantage in entering the market as the result of regulatory inconsistency.

Promotion of competition

98 In terms of the promotion of competition criterion, to the extent that retail basic access prices are effectively required to be uniform on a national basis, and to which retail charges for ADSL are also nationally uniform, having deaveraged ULLS prices virtually guarantees that residential customers residing in rural areas will never have network choices or share in the benefits of infrastructure competition. This is because, with deaveraged ULLS prices, so long as Telstra's retail prices are averaged, there is little prospect of ULLS take-up, and the infrastructure investment that accompanies it, in rural areas. This is inconsistent with the Commission's stated objective of promoting more robust competition from facilities entry and the dynamic efficiencies that it considers flows as a result. This is evident in the current pattern of ULLS at deaveraged prices, with take-up limited to Bands 1 and 2.

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[23] Draft Decision, , Table 6.4.1, p 32.

[24] Competitive neutrality is relevant to the promotion of competition and the efficient investment criteria to which the Commission is to have regard in assessing an undertaking under Part XIC of the TPA. The Commission has in the past inappropriately made reference to the short-run completive neutrality framework of Gans and King which (incorrectly) suggests that competitive neutrality will only be achieved if access prices be set according to the short-run marginal costs of the access provider. See Gans, J, S. & King, S. P. 2004, 'When are regulated access prices competitively neutral? The case of telecommunications in Australia', *Australian Business Law Review*, 32. Putting aside the question of whether the Gans and King competitive neutrality test is correct, it is in any case not a relevant competitive test to apply given that the LTIE criteria are explicitly concerned with long-term outcomes for end-users.

[25] See Tye, W. 2002, Competitive Neutrality: Regulating Interconnection Disputes in the Transition to Competition, paper for ACCC Regulation and Competition Conference, July 25-26.

99 At averaged prices, however, rural and regional areas would benefit from stronger incentives for market entry (and derive the associated benefits, including in terms of investment) as efficient competitors could enjoy positive margins at averaged retail prices.

100 This is also consistent with the findings of the OECD, that the structure of wholesale prices should mirror that of retail prices:

> *"Australia, which has geographically averaged retail prices, has chosen to geographically de-average ULL prices. This increase[s] the likelihood of both intense competition in CBD areas and limited entry in higher cost areas unless retail prices are deaveraged or explicit taxes and subsidies are used to support the retail price structure"*[26]
> *"In regard to geographic differentiation of prices … if the scope for competition is to be maximised and if end-user charges are to be preserved, the structure of access charges should reflect the structure of the end-user charges. … [I]f the regulator wishes to preserve the geographically averaged structure of end-user prices, it is essential to geographically average ULL prices."*[27]

101 Thus in at least two ways, geographically averaged ULLS prices ensure that rural and remote customers reap the benefits of competition – directly, via Telstra's ability to maintain uniform PSTN and broadband prices, and indirectly, via the increased incentives for ULLS take-up and accompanying investment in rural and remote areas. Ensuring that the benefits of competition continue to extend to those customers outside major metropolitan areas is both a Government social policy goal and, importantly from the perspective of this submission, consistent with the long-term interests of end-users.

H. NON-PRICE TERMS AND CONDITIONS

102 Telstra submits that the non-price terms and conditions in the Undertaking are consistent with both the service description for the ULLS in the Commission's Register of Declared Telecommunications Services and the terms and conditions in Telstra's access agreements with its wholesale customers.

103 The provisions regarding network modernisation have been updated from those in Telstra's previous ULLS undertakings so as to reflect recent changes to technology and to afford access seekers greater certainty and clarity about the nature of those processes. In addition Telstra has made it clear that extensive notice of network modernisation will be provided (except in the case of emergency upgrades) and set

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[26] OECD, Access Pricing in Telecommunications (OECD, 2004) p.14
[27] OECD, Access Pricing in Telecommunications (OECD, 2004) p.134

out a minimum notice period. Telstra submits that these changes assist access seekers by promoting clarity and certainty around their investment decisions and that the network modernisation provisions, as a whole, strike an appropriate balance between Telstra's need to maintain and update its network and the interests of access seekers in having sufficient notice of changes that will affect them.

104 Telstra submits that these provisions are reasonable for the purpose of s 152CP of the Act.

I. CONCLUSION

105 For the above reasons, Telstra urges the Commission to accept the Undertakings.

Dated: 23 December 2005.

ANNEXURE A: Assessment of Efficient Cost-based Prices Against the Statutory Criteria

Section 152AH criteria	Comments
Long term interests of end users - objective of promoting competition in markets for listed services	In the long term, efficient cost-based access pricing will create appropriate incentives for access seekers to choose to build infrastructure rather than compete through resale, fostering sustainable competition.
Long term interests of end users - promoting any-to-any connectivity	Efficient cost-based pricing encourages economically efficient investment by both access provider and access seeker. Accordingly, in the long term, the safe and reliable provision of carriage services will be maintained and any-to-any connectivity thereby promoted.
Long term interests of end users - objective of encouraging economically efficient use of and investment in existing and future infrastructure	In the long term, efficient cost-based pricing will afford Telstra a normal commercial return on efficient investments and will ensure the efficient investment in infrastructure in future. The competitive neutrality, as between Telstra and access seekers, which arises under efficient cost-based pricing will also tend to ensure that churn occurs on the basis of relative efficiency and not pricing distortions, thereby ensuring existing and future infrastructure is utilised in the most efficient way.
Legitimate business interests of the provider/ carrier and the provider's/ carrier's investment in facilities	The consideration of legitimate business interests of the access provider should not be limited to interests in relation to ULLS, but more broadly. Regulatory certainty is also a factor here. From this perspective and in the long term, efficient cost-based pricing for ULLS used by access seekers to compete with Telstra for the services in downstream markets will ensure that Telstra earns a normal commercial return on its investment in the systems and infrastructure used to supply ULLS, which is consistent with its legitimate business interests.
Interest of access seekers	Access seekers' interests need to be considered in the broader commercial context, and not only by reference to the input costs and revenues from the ULLS. These broader interests include the desirability of certainty over key terms and conditions, such as price. From this perspective, the access seekers' interests are in being able to compete efficiently in downstream markets. However, access seekers also have an interest in ensuring the continued supply of the service, which involves investment in the infrastructure by means of which declared services are provided. As a result, access seekers also benefit if charges are such as to allow and promote efficient investment in the access provider's facilities.
Direct costs of providing access	This criterion is intended to preclude the access provider from recovering compensation for consequential loss of monopoly profits as a result of the provision of access. The price of ULLS is no higher than the efficient costs of providing it (that is, costs which would be incurred in a market subject to effective competition) and, therefore, by definition, cannot permit recovery of compensation in excess of such costs.

Section 152AH criteria	Comments
Safe and reliable operation of a carriage service, a telecommunications network or a facility	Since efficient cost-based pricing encourages economically efficient investment, in the long term, cost based prices will enable the access provider to maintain the safety and reliability of the operation of the infrastructure and systems provided in connection with ULLS.
Economically efficient operation of a carriage service, a telecommunications network or a facility	Since efficient cost-based pricing encourages economically efficient investment and use in the long term, the undertaking price is consistent with the economically efficient operation of services, including competitors' services.