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**Confidential Communication**

Dear Mr Cosgrave

**Discussion Paper ("the Paper") on Model Price Terms and Conditions for PSTN OTA, ULLS and LCS**

I refer to the Commission's Paper dated 11 April 2003.

Please find enclosed Telstra's submission in response to the Paper.

Yours sincerely

Paul Paterson  
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2503

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## **SUBMISSION IN RESPONSE TO THE DISCUSSION PAPER ON MODEL PRICE TERMS AND CONDITIONS FOR PSTN OTA, ULLS AND LCS**

### **A INTRODUCTION**

1 On 11 April 2003, the Australian Competition Consumer Commissioner (“**Commission**”) released a Discussion Paper (“**the Paper**”) on Model Price Terms and Conditions for PSTN originating and terminating access service (“**PSTN OTA**”), unbundled local loop service (“**ULLS**”) and local carriage service (“**LCS**”). The Commission has called for submissions in relation to specific issues raised in the Paper.

2 This submission sets out Telstra’s position on the issues identified in the Paper.

### **B EXECUTIVE SUMMARY**

3 There are two options for setting indicative prices for the next 3 years. The first is to use the PIE II model to set those prices. The second is to use the PIE II model to estimate the price in the first year, which could then be adjusted for the subsequent years by using appropriate adjustment factors.

4 The PIE II model includes appropriate technology factors and forecasts of traffic volumes for the 2002/03, 2003/04 and 2004/05 financial years. Accordingly, Telstra submits that the price in each year should be set by running the PIE II model for each of those years as this will result in the most accurate outputs. As a result, it is unnecessary to make any adjustments outside the PIE II model.

5 If, however, the Commission considers it appropriate to adjust the first year price using adjustment factors outside of the PIE II model, then Telstra makes the submissions set out below.

### **C DETAILED SUBMISSIONS**

#### **C1 Pricing of PSTN OTA, ULLS and LCS**

6 Telstra accepts that the prices for PSTN OTA and ULLS will be set on the basis of total service long run incremental costs (“**TSLRIC**”) together with an allocation of common costs and indirect costs, such as organisational costs. For the reasons set out in Telstra’s

Submission in Response to the Discussion Paper on the Future Access Pricing Approaches for PSTN OTA, ULLS and LCS ("**the First Submission**"), Telstra submits that the price of LCS should likewise be set on the same basis

## **C2 Choice of model**

- 7 Telstra submits that the PIE II model is the most current and accurate model available. Accordingly, it is the most appropriate model to use to estimate the TSLRIC of an Australian PSTN. Thus, Telstra submits that the PIE II model should be used by the Commission in setting indicative prices. The PIE II model has been made available to personnel and advisers of industry participants who have signed appropriate confidentiality undertakings. Thus their views on the PIE II model are likely to be provided to the Commission as part of the model terms and conditions process.
- 8 The assumptions on which the PIE II model is based are set out in Telstra's Submission in Relation to the Methodology used for Deriving Prices proposed in its Undertakings dated 9 January 2003 ("**the Methodology Submission**"). A public version of the Methodology Submission is available on the Commission's website. A confidential version of the Methodology Submission has been made available by Telstra to personnel and advisers of industry participants who have signed confidentiality undertakings.
- 9 Telstra intends to provide detailed submissions as to the appropriateness of the various assumptions on which the PIE II model is based to the Commission as part of the process set by the Commission in relation to Telstra's undertakings dated 9 January 2003.

## **C3 Range of indicative prices**

- 10 Telstra submits that publication of definitive indicative prices by the Commission will set market expectations as to prices which the Commission is likely to set during any arbitration between parties. If, at the time when prices are published, the Commission has not finalised its views on the appropriate pricing methodology for each service (including its views on the PIE II model following its consideration of Telstra's Methodology Submission, detailed submissions and expert evidence which Telstra intends to provide to the Commission in support of its Undertakings dated 9 January 2003) there is a risk that those expectations will turn out to be unrealistic and misplaced. Thus in order to minimise the risk of setting such misplaced expectations, Telstra submits that the Commission ought to publish a range of prices rather than a single price. Once the

Commission has finalised its view on the appropriate price, it could then update that range to provide a single indicative price for each service.

- 11 Telstra submits that the high point of the range should be Telstra's proposed prices in its undertakings dated 9 January 2003. The low point should be the prices set by the Commission in 2001/02. Alternatively, the range should encompass the outer bounds of the Commission's views as to the appropriate prices for each of the services.

**C4 Adjustment Factor for PSTN OTA call conveyance and ULLS prices**

- 12 In principle, there would only be limited circumstances under which a PSTN OTA call conveyance cost and ULLS network costs estimated using the PIE II model for say 3 years would be consistent with an estimate which was calculated using an adjustment factor set by the Commission. First, the changing conditions over time would need to cause no change in the optimised network. Second, a complicated technology factor would need to be estimated as technology factors are specific to individual assets. Third, the demand volumes would either need to grow at a uniform rate across geographic areas or the relevant costs would need to be calculated at the geographically averaged level. While Telstra accepts that over short periods of time the optimised network may not change significantly, the large number of assets that comprise the PSTN and the need to estimate geographically deaveraged prices will necessarily complicate the application of any adjustment factor.
- 13 A technology factor (being the change in prices of assets) is specific to particular asset types. Hence, where there are a number of asset categories, the adjustment factor either needs to be applied to each group of assets individually or a weighted average adjustment factor needs to be calculated. Similarly, where prices are required at a geographically deaveraged level, the technology and output factors would need to be calculated at the same level of disaggregation.
- 14 Given these complexities, it is Telstra's view that a far superior approach would be to re-run the PIE II model for each year (which, as set out above, already contains these adjustments), because the information required to do so would be no more burdensome than that required to calculate the adjustment factor itself.
- 15 If, in spite of the above, the Commission decides to make adjustments to the first year indicative price outside of the PIE II model, Telstra submits that:

- (a) the technology factor should be set at a rate consistent with the technology factors used in the tilted annuity calculation in the PIE II model (as detailed in Annexure F of the Methodology Submission); and
- (b) the output factor should be calculated on the basis of Telstra's forecast traffic volumes (as detailed in Annexure D of the Methodology Submission).

- 16 The rationale for using the technology factor used in the PIE II model is that, over the asset's life, the full purchase price of the asset (in present value terms) will be recovered. Such a condition is necessary to maintain financial capital intact. If the discounted sum of the annual capital charges over the asset's life fail to recover the initial investment, then no firm would be willing to undertake the initial investment, as it would be impossible to avoid asset stranding.
- 17 Given that the tilted annuity in the PIE II model assumes a particular profile of cost recovery over time, the same profile should be incorporated into the adjustment as part of the technology factor. Assuming a different profile could undermine cost recovery and distort incentives for efficient competition and investment.
- 18 For example, assume that a service is produced with a single asset with a purchase cost of \$100, a useful life of 5 years and a technology factor of 5%. Also assume that the WACC is 10% and CPI is 2%. In year 1 the asset produces 1,000 units of output, increasing by 100 units per year. Based on these assumptions, the annual capital cost and unit cost of the service calculated using the tilted annuity in the PIE II model would be as follows:

Year	Output	Annual cost	Unit cost
1	1,000	\$27.85	\$0.0278
2	1,100	\$27.01	\$0.0246
3	1,200	\$26.20	\$0.0218
4	1,300	\$25.42	\$0.0196
5	1,400	\$24.66	\$0.0176

- 19 The discounted value of the annual costs is just sufficient to return the full purchase price of \$100. Now assume that instead of calculating the annual costs for each year, an adjustment factor was to be applied to the year 1 unit cost of 2.78 cents. The appropriate adjustment factor would be:

$$(1 + \text{CPI} + \text{technology factor} + \text{output factor} * \text{cost elasticity}) / (1 + \text{output factor})$$

- 20 To arrive at the correct unit cost estimate for year 2 (assuming a cost elasticity of zero), the technology factor must be set at 5%, the same rate that would have been used in the tilted annuity formula:

$$(1 + 2\% - 5\%) / (1 + 10\%) = 88\%$$

The year 2 unit cost would then be 2.46 cents (2.78c \* 88%).

- 21 Telstra submits that the technology factor, should be calculated as the weighted average across all asset types, using the value of each asset category as the weights.
- 22 The output factor is relevant for the purposes of both determining the size of the cost pool and the units over which the cost pool is allocated. If traffic is increasing over time, then the output factor will increase the size of the cost pool, but decrease the level of unit costs.
- 23 Telstra submits that the best available traffic volume information is that forecast by Telstra. To calculate the output factor, all PSTN demand used to unitise annual network costs should be included in the definition of output. The output factor could either be applied at the geographically averaged or deaveraged level. The simplest approach would be to apply the output factor at the geographically averaged level and then estimate the deaveraged unit costs by scaling each of the year 1 deaveraged unit costs by the same differential between the year 1 and year 2 average costs. However, this approach is likely to lack accuracy, if the rate of traffic growth between geographic areas differs. The alternative is to calculate the adjustment factor at the geographically deaveraged level, which would require the technology and the output factors to also be calculated at this level of disaggregation. Telstra's submits that the approach which should be adopted is the one that provides the most accurate results. This would involve rerunning the PIE II model for each year. However, if the Commission adopts what Telstra submits is a less reliable and more complicated approach, then Telstra submits that an adjustment factor should be applied at the geographically averaged level.
- 24 Telstra also submits that, if the Commission uses an adjustment factor approach to setting indicative prices, then it should treat ULLS specific costs separately from the ULLS network costs. This is because these costs are calculated separately from the network costs, and are levelised over a three year period due to the large year on year changes in demand. This levelisation process has already taken into account CPI and changes in asset

costs and demand in future years, and as such should not require adjustment factors to be applied. The ULLS specific costs have, in effect, already addressed the issue of future prices, at least for the period covered by Telstra's Undertakings.

## **C5 ADC Adjustment Factor**

- 25 The Commission has proposed three possible approaches to calculating an adjustment factor for the access deficit contribution ("ADC"). The first approach involves an arbitrary assumption that the ADC would be eliminated over a period of 4 years in a straight-line adjustment path. Telstra strongly disagrees that the access deficit would be eliminated in such a short period. In addition, the approach involves no adjustment for output changes. This fails to take into account changes in traffic volumes, is overly simplistic and is inconsistent with the approach proposed for the call conveyance adjustment.
- 26 The second approach proposed by the Commission involves a simple straight-line adjustment path for the access deficit itself rather than the ADC. While this approach would allow an adjustment for output changes, it would still require an arbitrary assumption regarding the period over which the access deficit would be eliminated. Hence, given that the access deficit will not be eliminated in 4 years, Telstra submits that such an approach is inappropriate.
- 27 The third approach, which involves an adjustment to both the costs of the Customer Access Network ("CAN") and potential access revenues is the only approach proposed by the Commission that does not require an arbitrary assumption regarding the period over which the access deficit would be eliminated. It allows changes in the costs of access and changes in the volume of traffic to be included. While the Commission notes that this is the "most complex" approach, in practice its implementation is straightforward. This is exactly the approach that Telstra used to roll-forward the Commission's 2000/01 PSTN OTA rate to 2001/02, an estimate endorsed by the Commission<sup>1</sup>. The approach involves a roll-forward of the CAN line costs, the number of PSTN lines, USO revenues, retail costs and line rental revenues. As with the call conveyance costs, CAN costs (network and retail) can be rolled forward using the outputs from the PIE II model. If the Commission does not accept this approach, then they can be rolled forward using parameters for CPI,

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<sup>1</sup> Media Release entitled "ACCC Issues its Views on Access Pricing to Encourage Negotiated Settlement over Access to Telstra's Fixed Network in 2001 - 2002" dated 18 May 2001.

technological change and cost elasticity, consistent with the approach used to calculate these parameters for PSTN OTA and ULLS. The number of PSTN lines can be based on Telstra's forecasts. USO revenues are known and line rental revenues can be readily estimated based on the price controls operating at the time.

28 Given that this approach provides the most accurate estimate of the ADC, has been implemented successfully in the past and does not require arbitrary assumptions, Telstra submits that it is an approach which is most consistent with the statutory criteria and thus the most appropriate option for adjusting the ADC.

#### **C6 Pricing of LCS**

29 For the reasons set out in the First Submission, Telstra considers that retail minus retail cost ("RMAC") methodology is inappropriate for setting the price for LCS.

30 However, if the Commission sets a price of LCS using RMAC methodology, Telstra submits that:

- (a) the 'unbundled' price is the appropriate starting point for the calculation of RMAC from an economic perspective for the reasons set out in Telstra's previous submissions on this issue, prepared in response to the Commission's pricing principles on LCS. Telstra notes the Commission's comments regarding Telstra's ability to impose a price squeeze on its competitors. However, if the Commission has concerns that Telstra is acting in an anti-competitive manner, then the appropriate approach to addressing such concerns is through Part XIB of the Trade Practices Act. Telstra also notes that the Commission proposes to monitor Telstra's bundling behaviour as set out in its discussion paper on bundling of telecommunications services. With ex post monitoring under Part XIB of the Trade Practices Act and ex ante monitoring via the Commission's information disclosure powers, Telstra submits that it is unnecessary to set the starting point at other than the unbundled price, which is the most appropriate from an economic perspective;
- (b) the Commission ought to rely on avoidable costs of local calls and basic access calculated using the latest 2001/02 regulatory accounts.

31 Submissions as to the appropriateness of those costs will be provided to the Commission in the undertaking context.



**C7 Adjusting Retail Costs**

- 32 Telstra re-emphasises its preferred approach of calculating the LCS on the basis of TSLRIC consistent with the cost allocation assumptions employed in the estimation of PSTN OTA prices. However, if the Commission continues to adopt an RMAC approach, then Telstra believes that an adjustment for output is required, consistent with the Commission's proposed adjustment factors for PSTN OTA call conveyance, the ADC and the ULLS.
- 33 The unitisation of costs is likely to have the largest impact out of all of the adjustment factors. In terms of the PSTN OTA call conveyance costs, the ADC and the ULLS, the inclusion of an output parameter in the adjustment factors is likely to decrease prices over time. In contrast, the inclusion of an output parameter in the LCS price is likely to lower the retail cost estimate and hence increase the LCS price over time. However, this does not provide a justification for implementing a biased approach to the calculation of the adjustment factors. Telstra submits that if an output factor is to be included in the adjustment factors for PSTN OTA call conveyance, the ADC and the ULLS, then a consistent approach should be adopted for LCS.
- 34 In terms of the technology factor estimate to be included in the adjustment factor, Telstra submits that a rate consistent with that used in the retail price control determinations would be appropriate. Importantly, a technology factor adjustment is only appropriate while the Commission calculates avoidable retail costs on the basis of historic costs. If the Commission moves to an efficient cost standard for the calculation of retail costs, then it would be inappropriate to apply a technology factor, as the adjustment should only include further productivity improvements on efficient costs, not productivity improvements over historic costs.

**Telstra Corporation Limited**

**2 May 2003**