



**Australian
Competition &
Consumer
Commission**

Assessment of Telstra's undertakings for PSTN, ULLS and LCS

Final Decision

December 2004

Contents

| | |
|---|------|
| Contents | ii |
| Abbreviations | v |
| Glossary | viii |
| Executive summary | 1 |
| 1. Introduction | 3 |
| 2. Background | 4 |
| 2.1. Declaration and the regulatory framework..... | 4 |
| 2.2. The declared core services | 5 |
| 2.2.1. Domestic PSTN Originating and Terminating Access Services..... | 5 |
| 2.2.2. ULLS | 6 |
| 2.2.3. LCS..... | 7 |
| 3. Summary of the undertaking | 8 |
| 3.1. Terms and conditions of the undertakings | 8 |
| 3.2. PSTN Originating and Terminating Access Service undertakings | 9 |
| 3.3. Unconditioned Local Loop Service undertakings | 10 |
| 3.4. LCS undertakings | 12 |
| 4. Legislative Background..... | 13 |
| 4.1. Form and contents of an undertaking | 13 |
| 4.2. Criteria for acceptance of an undertaking | 13 |
| 4.2.1. Public process..... | 13 |
| 4.2.2. Consistency with the standard access obligations..... | 16 |
| 4.2.3. Consistency with Ministerial pricing determination | 17 |
| 4.2.4. Whether terms and conditions are reasonable..... | 17 |
| 4.2.5. Expiry date | 20 |
| 4.3. Assessment of combined undertakings | 20 |
| 4.4. Procedural matters..... | 21 |
| 4.4.1. Confidentiality..... | 21 |
| 4.4.2. Information requests and further submissions from Telstra..... | 21 |
| 4.4.3. Information relied upon..... | 21 |
| 4.4.4. Decision-making period | 22 |
| 5. Consistency with standard access obligations..... | 23 |
| 5.1. The standard access obligations | 23 |

| | | |
|-------------|--|----|
| 5.2. | Approach to assessing consistency with the standard access obligations | 23 |
| 5.3. | Assessment | 24 |
| 5.3.1. | Whether the undertakings specify terms and conditions in respect of services other than the Telstra services | 24 |
| 5.3.2. | Supply, quality and fault handling in relation to the declared services | 26 |
| 5.3.3. | Interconnection of facilities..... | 26 |
| 5.3.4. | Provision, timing and content of billing information..... | 27 |
| 5.3.5. | Conclusion..... | 27 |
| 6. | Reasonableness of the terms and conditions | 28 |
| 6.1. | The proposed core service access prices | 28 |
| 6.1.1. | PSTN O/T..... | 28 |
| 6.1.2. | ULLS | 32 |
| 6.1.3. | Local carriage service..... | 33 |
| 6.2. | Non-price terms and conditions | 38 |
| Appendix A. | Assessment of PSTN O/T prices..... | 39 |
| A.1. | Model prices terms and conditions..... | 39 |
| A.2. | Telstra's proposed disaggregated rate table | 40 |
| A.3. | Consistency of Undertakings with model price terms and conditions. | 41 |
| A.3.1. | Reasonableness of assumptions for disaggregation | 41 |
| A.3.2. | Appropriate method of disaggregation of model terms and conditions headline rates..... | 44 |
| Appendix B. | Assessment of LCS prices | 46 |
| B.1. | Model prices terms and conditions..... | 46 |
| B.2. | Key issues in relation to Telstra's undertakings for the LCS..... | 47 |
| B.2.1. | Potential anti-competitive behaviour | 47 |
| B.2.2. | TSLRIC versus retail-minus approach | 51 |
| B.2.3. | The undertakings as a lower limit on prices..... | 53 |
| B.2.4. | Retail costs | 53 |
| B.2.5. | PSTN O/T local call | 53 |
| Appendix C. | Modelling issues | 55 |
| C.1. | Appropriateness of the PIE II model..... | 55 |
| C.1.1. | Commission's draft view | 55 |
| C.1.2. | Telstra's Comments on the draft view | 59 |
| C.1.3. | The Commission's final view | 59 |
| C.2. | Future appropriate modelling assumptions | 59 |

| | | |
|-------------|---|----|
| C.2.1. | Provisioning Rules | 59 |
| C.2.2. | WACC..... | 62 |
| C.2.3. | Network Planning Costs..... | 67 |
| C.2.4. | Indirect, operation and maintenance factors | 68 |
| C.2.5. | ADC parameters..... | 69 |
| C.2.6. | Trench and Duct Sharing..... | 73 |
| Appendix D. | Access Deficit | 78 |
| D.1. | Commission’s draft view | 78 |
| D.2. | Telstra’s comments on the draft view | 83 |
| Appendix E. | Submissions to Core undertakings..... | 90 |
| E.1.1. | AAPT Ltd..... | 90 |
| E.1.2. | Australian Telecommunications Users Group (ATUG)..... | 91 |
| E.1.3. | Comindico | 91 |
| E.1.4. | Communications Expert Group (CEG) | 91 |
| E.1.5. | Competitive Carriers Coalition (CCC)..... | 91 |
| E.1.6. | CoRE Research | 92 |
| E.1.7. | Macquarie Corporate Telecommunications (MCT)..... | 92 |
| E.1.8. | Optus | 92 |
| E.1.9. | PowerTel | 93 |
| E.1.10. | Primus Telecommunications | 93 |
| E.1.11. | Telstra..... | 94 |

Abbreviations

| | |
|------------|---|
| AAPT | AAPT Limited |
| ACA | Australian Communications Authority |
| Act | <i>Trade Practices Act 1974</i> |
| AD | Access Deficit |
| ADC | Access Deficit Contribution |
| AE | Access Economics |
| CAN | Customer access network |
| CAM | Customer access module |
| CCC | Competitive Carriers Coalition |
| CEG | Communications Expert Group |
| C-MUX | Customer multiplexer |
| Commission | Australian Competition and Consumer Commission |
| CoRE | CoRE Research Pty Ltd |
| DCITA | Department of Communication, Information Technology and the Arts |
| DSL | Digital subscriber line |
| EBIT | Earnings before interest and taxation |
| EBITDA | Earnings before interest, taxation, depreciation and amortisation |
| EMOU | End Minutes of Use |
| ESA | Exchange service area |
| FDC | Fully distributed cost |
| FTM | Fixed-to-mobile |
| IDD | International Direct Dial |
| IEN | Inter-exchange network |
| IRIM | Integrated remote integrated multiplexer |
| LAN | Local area network |

| | |
|----------|---|
| LAS | Local access switch |
| LCS | Local Carriage Service |
| LIC | Lead in Connections |
| LTIE | Long Term Interests of End Users |
| MCT | Macquarie Corporate Telecommunications Pty Ltd |
| MDF | Main distribution frame |
| MUX | Multiplexer |
| MTF | Mobile-to-fixed |
| NECG | Network Economics Consulting Group |
| NERA | NERA Economic Consulting (formerly National Economic Research Associates) |
| NTP | Network termination point |
| Optus | SingTel Optus Pty Ltd |
| PC | Productivity Commission |
| PIE | PSTN Ingress and Egress model |
| POI | Point of interconnection |
| PowerTel | PowerTel Limited |
| Primus | Primus Telecommunications Pty Ltd |
| PSTN O/T | Public Switched Telephone Network Originating and Terminating Access Services |
| RAF | Regulatory accounting framework |
| RSS/RSU | Remote switching stage/ remote switching unit |
| SAOs | Standard Access Obligations |
| SDH | Synchronous digital hierarchy |
| SCAD | Small Capacity Distributed System |
| SIO | Services in operation |
| STD | Subscriber Trunk Dialling |

| | |
|--------------|--|
| Telstra | Telstra Corporation Limited |
| TS | Transit switch |
| TELRIC | Total element long-run incremental cost |
| TSLRIC | Total service long-run incremental cost |
| TSLRIC+ | Total service long-run incremental cost plus indirect costs |
| TSLRIC++ | Total service long-run incremental cost plus indirect costs plus ADC |
| ULLS | Unconditioned Local Loop Service |
| Undertakings | Telstra's PSTN O/T, ULLS and LCS access undertakings lodged with the Commission on 14 November 2003. |
| UPCC | Unrecovered PSTN CAN cost |
| UPCCC | Unrecovered PSTN CAN cost contribution |
| USO | Universal service obligation |
| WACC | Weighted average cost of capital |

Glossary

| | |
|--|--|
| Access Provider | Carrier or carriage service provider who supplies declared services to itself or other persons — see s. 152AR of the Act. |
| Access Seeker | Service provider who makes, or proposes to make, a request for access to a declared service under s. 152AR of the Act. |
| Core services | PSTN O/T, ULLS and LCS |
| Customer access network | The network which enables the connection of telephones and other customer premises equipment to switching technology. It consists of a network of conduits and pipes in the ground with a mixture of cables containing copper wires and optical fibres. It consists of two parts – the distribution network and the feeder network. |
| Distribution network | That part of the customer access network connecting the distribution point (typically a pillar) to the network termination point. |
| Exchange | A generic term for a major node in an exchange service area (e.g. an IRIM, RSS/RSU, LAS, TS). |
| Feeder network | That part of the customer access network connecting the exchange to the distribution point (typically a pillar). |
| Integrated remote integrated multiplexer | This device consists of a protective housing, cable and optical fibre terminating strips, and multiplexing equipment, erected in street-based housing. ‘Integrated’ means that the housing contains multiplexers that enable different services to be carried over the same transmission cable (i.e. special services, telephone services, public telephone services, ISDN services are all carried over the same transmission cable/fibre). The transmission protocol is integrated with the telephone exchange software. |
| Inter-exchange network | The network connecting exchanges to |

| | |
|---|--|
| | each other. |
| Local access switch | This equipment provides ring current, dial tone and battery feed to end-users, as well as switching calls locally to other local access switches. It also provides number analysis for call routing and call charge recording, and enhanced (or supplementary) services such as call waiting and call diversion. |
| Multiplexer | A device that combines two or more signals into a single composite data stream for transmission on a single channel. |
| Network termination point | The termination point of the public switched telephone network at the end-user's premises. Cabling beyond this point is customer wiring. |
| Pre-selection | Function that enables an end-user or service provider to select a preferred carrier or carriage service provider for a certain type of call (e.g. long distance calls). |
| Remote subscriber stage | A customer access module of the LM Ericsson AXE telephone switching exchange located in buildings remote from the group switching function. |
| Remote subscriber unit | A customer access module of the Alcatel S12 telephone switching exchange located in buildings remote from the group switching function. |
| Service provider | Defined in s. 86 of the <i>Telecommunications Act 1997</i> . Means a carriage service provider or a content service provider. |
| SDH ring | The transmission route using SDH techniques to connect transit switches to other levels in the switching hierarchy. |
| Total service long run incremental cost | See Australian Competition and Consumer Commission, <i>Access Pricing Principles – Telecommunications: A guide</i> , July 1997. |

Executive summary

Telstra Corporation Limited ('Telstra') lodged access undertakings ('the Undertakings') with the Australian Competition and Consumer Commission ('the Commission') on 14 November 2003. The Undertakings specify certain terms and conditions upon which Telstra undertakes to meet its standard access obligations ('SAOs') in respect of the domestic PSTN originating and terminating access services ('the PSTN O/T'), the unconditioned local loop service ('the ULLS') and the local carriage service ('the LCS'). At the same time, Telstra withdrew the Undertakings in respect of the same services that it lodged on 9 January 2003.

Both Telstra's earlier decision to submit undertakings and its most recent decision to submit revised undertakings follow from amendments to the *Trade Practices Act 1974* ('the Act') in 2002 which encourage the lodgement of undertakings as the main means of addressing access to declared services.¹ In addition, the lodgement of the Undertakings followed the Commission's publication of model price terms and conditions relating to the PSTN O/T, LCS and ULLS ('the core services').² In reaching this determination, the Commission undertook extensive work on the assessment of appropriate price terms and conditions for the supply of the core services and it consulted widely with interested parties on all relevant issues.

Under Part XIC of the Act, the Commission must accept or reject the Undertakings. The process the Commission is following to assess the Undertakings is open and public, allowing parties to express their views and provide relevant information to the Commission. In assessing the Undertakings for this final decision, the Commission has, inter alia, had regard to, and has published (where possible):

- Telstra's 9 January 2003 PSTN, LCS and ULLS undertakings and its supporting submissions;
- the Commission's Final Determination of model price terms and conditions for the PSTN, ULLS and LCS services;
- the Commission's draft decision on Telstra's Undertakings³; and
- All submissions relating to the above.⁴

Subject to confidentiality restrictions, all of the above can be found at the Commission's website www.accc.gov.au.

Following these public assessment processes, the Commission has reached a final decision to accept Telstra's PSTN O/T and LCS undertakings. The Commission's draft report indicated that the ULLS undertaking would be rejected, but Telstra has since withdrawn that undertaking and submitted a new ULLS undertaking. This report therefore makes no formal decision on the 14 November 2003 ULLS undertaking.

¹ See Explanatory Memorandum, *Telecommunications Competition Bill 2002*, p. 1.

² ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003.

³ ACCC, *Assessment of Telstra Core Service Undertakings – Preliminary View*, 12 December 2003

⁴ Confidential submissions have not been published but are available to parties once appropriate confidentiality arrangements have been made.

The Commission notes that it has had to exercise its power, under sub-section 152BU(7) of the Act, to extend its decision-making period by up to a further 3 months.⁵ The reason for this extension is due to the need for the consideration of further key issues relating to the traffic data which did not come to light until well after the formal period prescribed by the Commission for submissions on the Undertakings (the 'Consultation Period'). While the Commission notes that it would have met its assessment deadline if it had chosen to move to a final decision on the Undertakings (as was originally intended) the Commission was of the view that it should test its draft view on this matter with the industry by releasing its draft decision for comment on 14 October 2004.

The Commission's conclusions in relation to its final view to accept the PSTN O/T and LCS undertakings are as follows:

- on the basis of reasonable traffic assumptions, Telstra's proposed disaggregated PSTN O/T rates result in headline rates only marginally above Commission's model price terms and these appear to be consistent with relevant statutory criteria;
- even though the Commission has concerns in relation to a potential price squeeze in the local call market, it believes that, given the need for certainty and the fact that the LCS undertakings will only apply for six months, the LCS undertakings are reasonable, having regard to relevant regulatory criteria; and
- These concerns in relation to the LCS are better addressed in the upcoming review of the LCS declaration and associated pricing principles.

⁵ As required by sub-section 152BU(7) of the Act, the Commission has given Telstra written notice of this extension to the decision-making period. This has been placed on the Commission's website, as required by sub-section 152BU(8) of the Act.

1. Introduction

Section 152AQB of the *Trade Practices Act 1974* (the Act) defines “core” (telecommunications) services to include:

- the Domestic PSTN⁶ Originating Access Service and Domestic PSTN Terminating Access Service (‘PSTN O/T’);
- the Unconditioned Local Loop Service (‘ULLS’); and
- The Local Carriage Service (‘LCS’)⁷.

These services are the main fixed-line network interconnect or wholesale services used by competitors of Telstra who supply these core services. Competitors need these services in order to compete with Telstra for the provision of a variety of retail services, such as local, domestic long distance (‘STD’), international (‘IDD’) and fixed-to-mobile (‘FTM’) calls, as well as various high-speed data services. Access to these core services has, in the past, been the main area of disputation about access services in the industry.

The cores services have been ‘declared’ under Part XIC of the Act. The PSTN O/T was declared in July 1997 while the ULLS and LCS services were declared in July 1999 and August 1999 respectively.

Declaration of a service has two important consequences. First, it means that Telstra is required to supply these services to all service providers upon request. Second, and this flows from the first point, when Telstra and a service provider cannot agree on the terms and conditions of supply, one of them can notify the Australian Competition and Consumer Commission (‘the Commission’) of a dispute. The Commission can then arbitrate and resolve the dispute.

To reduce the scope for disputes and, consequently, the need for the Commission to become involved in arbitrations, Telstra can offer the Commission an undertaking setting out particular terms and conditions of supply. If the Commission accepts the undertaking, then it is prevented from making an arbitration determination that is inconsistent with the undertaking.

Telstra Corporation Limited (‘Telstra’) lodged access undertakings (‘the Undertakings’) for the core services with the Commission 14 November 2003. The Undertakings specify certain terms and conditions upon which Telstra undertakes to meet standard access obligations (‘SAOs’) in respect of each of the core services. At the same time, Telstra withdrew its undertakings in respect of the same services that it lodged on 9 January 2003.

This report (the ‘Final Report’) details the Commission’s final decisions to accept the undertakings relating to the supply of the PSTN O/T and LCS. The report also notes Telstra has withdrawn the November 2003 ULLS undertaking and submitted new ULLS undertakings. In this regard, the Commission provides some initial comments on these new ULLS undertakings.

⁶ Public Switched Telephone Network.

⁷ The Minister may also specify additional core services in regulations.

2. Background

2.1. Declaration and the regulatory framework

As noted, each of the core services has been declared under Part XIC of the Act – the PSTN O/T in 1997 and the LCS and the ULLS in 1999.

Once a service is declared, carriers and carriage service providers supplying the declared service to themselves or others are subject to the SAOs. These obligations constrain the manner in which those carriers and carriage service providers can conduct themselves in relation to supply of the declared service.

Section 152AR of the Act sets out the SAOs applying to those carriers and carriage service providers supplying the declared service to themselves or others. In summary⁸, if requested by a service provider, the carrier/ carriage service provider is required to:

- supply the declared service;
- take all reasonable steps to ensure that the declared service supplied to the service provider is of equivalent technical and operational quality as that which the carrier/ carriage service provider is supplying to itself;
- take all reasonable steps to ensure that the fault detection, handling and rectification which the service provider receives in relation to the declared service is of equivalent technical and operational quality as that provided by the carrier/ carriage service provider provides to itself;
- permit interconnection of its facilities with those of the service provider; and
- Provide particular billing information to the service provider.

The terms and conditions upon which a carrier/ carriage service provider is to comply with these obligations are as agreed between the parties. In the event that they cannot agree, one of them can notify the Commission of an access dispute under s152CM of the Act. Once notified, the Commission can arbitrate and make a determination which resolves the dispute. The Commission's determination need not, however, be limited to the matters specified in the dispute notification. It can deal with any matter relating to access by the service provider to the declared service.⁹

The Act enables a carrier/carriage service provider to resolve potentially contentious issues with the Commission outside the arbitral process. It can do this by giving the Commission an access undertaking setting out the terms and conditions on which it proposes to comply with particular SAOs.

If accepted by the Commission, the undertaking becomes binding on the carrier/carriage service provider. Hence, if a carrier/ carriage service provider breaches the undertaking, the Federal Court can make an order requiring compliance with the undertaking, the payment of compensation, or any other order that it thinks fit. In addition, in accepting an undertaking, the Commission is limiting its flexibility

⁸ There are some exceptions to these obligations. These are set out in s. 152AR, and in any exemption issued under section 152AS or section 152AT of the Act.

⁹ Sub-section 152CP(2) of the Act.

in the context of arbitrating access disputes. Once an undertaking is in operation, the Commission must not make an arbitral determination that is inconsistent with the undertaking.¹⁰

2.2. The declared core services

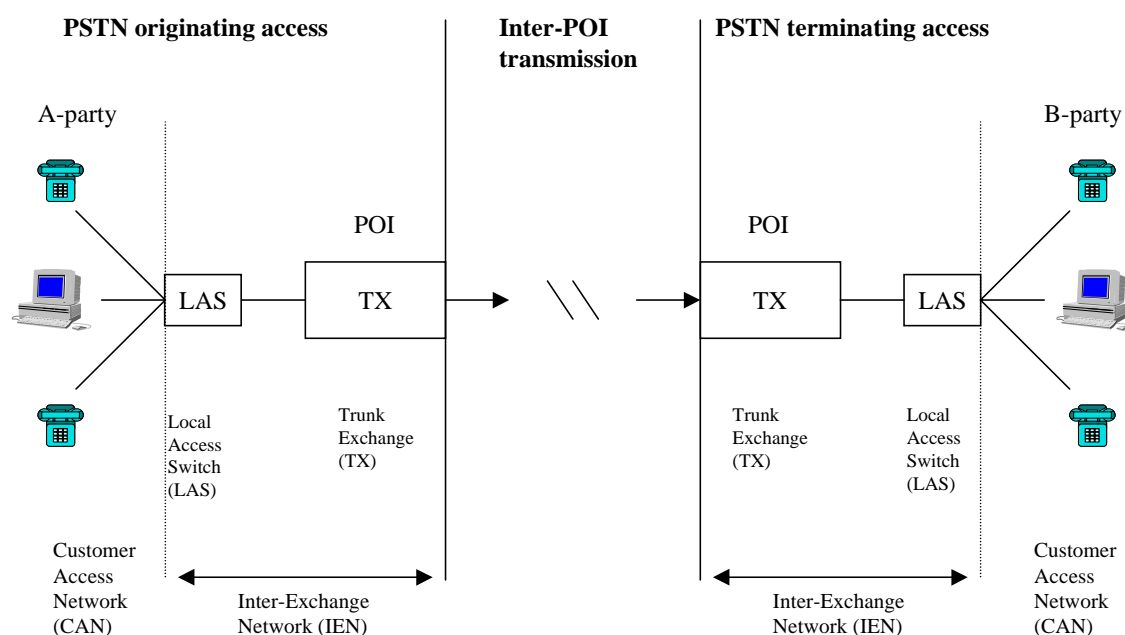
2.2.1. Domestic PSTN Originating and Terminating Access Services

Domestic PSTN originating access is the carriage of telephone calls from the calling party (the ‘A-party’) to a point-of-interconnection (‘POI’) with an access seeker’s network. Currently, a POI is usually located at a trunk exchange. Domestic PSTN terminating access is the carriage of telephone calls from a POI within an access seeker’s network to the party receiving the call (the ‘B-party’).

The declared domestic PSTN O/T is supplied by Telstra to itself and to other service providers. In regard to the latter, these services can be used as inputs by service providers to provide retail services to end-users, such as long distance calls, in competition with Telstra. In addition to long distance services, such as STD and IDD, the PSTN O/T is used as inputs to provide fixed-to-mobile (‘FTM’) and mobile-to-fixed (‘MTF’) calls to end-users in Australia. They can also be used by other network operators to interconnect with Telstra’s fixed network.

The use of the PSTN O/T is illustrated in Figure 2.2.1:

Figure 2.2.1: Domestic PSTN O/T services



Further elements of the PSTN O/T services are set out in the service descriptions attached to the *Deeming of Telecommunications Services* statement.¹¹

¹⁰ See sub-section 152CQ(5).

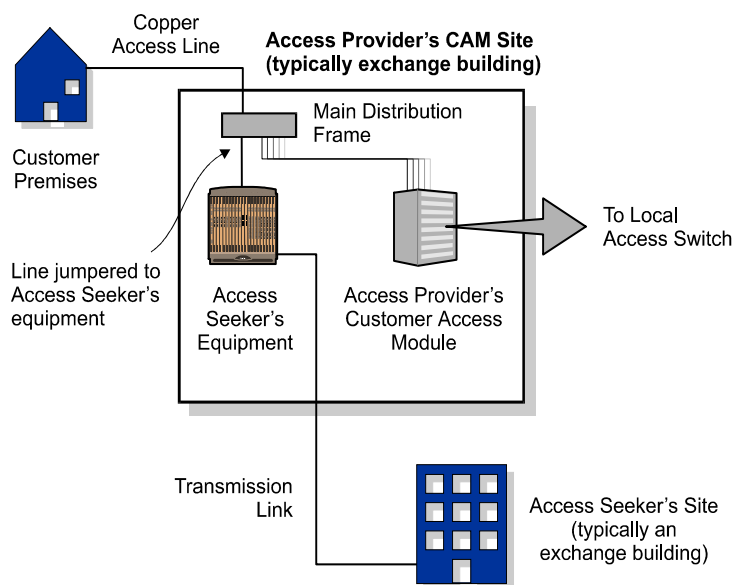
¹¹ ACCC, *Deeming of Telecommunications Services – A Statement Pursuant to Section 93 of the Telecommunications (Transitional Provisions and Consequential Amendments) Act 1997*, 30 June 1997.

2.2.2. ULLS

The ULLS involves the use of unconditioned cable, primarily copper pairs, between end-users and a telephone exchange, where the unconditioned cable terminates. In Figure 2.2.1: above, the unconditioned cable would exist from the A and B party premises to a point at or below the Local Access Switch ('LAS').

Under Telstra's customer access network ('CAN') architecture, customers are connected to the broader network by cables, which run from a customer's premise to what is known as Customer Access Module ('CAM') equipment. CAM equipment includes remote switching units or stages ('RSUs/RSSs'), remote (and integrated remote) integrated multiplexers ('RIMs/IRIMs') or newer generation remote customer multiplexers ('C-MUXs'). The CAM equipment can then be connected (directly, or by means of other CAM equipment) to a LAS and/or a data/IP network. Voice traffic is currently routed to the LAS for carriage using a circuit switched network, while data traffic is routed to a data/IP network (not separately shown). This is illustrated in Figure 2.2.2: In some areas, notably in CBDs, customers are directly connected to a LAS which effectively serves as the CAM.

Figure 2.2.2: Use of the ULLS



Source: AdvaTel

In terms of the above figure, the ULLS refers to the unconditioned twisted copper pairs that connect a customer's premises to the nearest CAM.

Telstra, as the predominant supplier of this service, has ownership of the copper CAN located throughout Australia.

The declared ULLS is used by access seekers to connect their own networks to existing infrastructure and deliver new and innovative high-speed and data-based services to end-users more efficiently. It can also be used to provide voice services more efficiently using voice over IP and DSL technologies. This includes services such as high speed Internet access, 'tele-working', distance learning, video-on-demand, remote local area network ('LAN') access and other multimedia and data applications, as well as local, STD and IDD call services in competition with Telstra.

2.2.3. LCS

The LCS is a service used by access seekers for local call resale. It is a service for the carriage of telephone calls from customer equipment at an end-user's premises to the separately located customer equipment of another end-user in the same standard zone.¹² After holding a public inquiry, the Commission declared the LCS in August 1999.¹³

The LCS can be used by access seekers to compete in the local telephony market and in the long distance telephony services market where local telephony services are bundled with long distance calls for customers who prefer to acquire those services from a single provider. Service providers can also use resale as a stepping stone to the roll out of their own infrastructure. Provision of the LCS enables service providers to obtain information about demand characteristics and the likely responses of competitors, thus reducing the risks associated with infrastructure deployment.

On 17 July 2002, the Commission granted an order providing Telstra with an exemption, under s152AT of the Act, with respect to the supply of LCS in the CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth. In making its decision, the Commission determined that access to the LCS declared service should be reduced to areas outside of CBDs because of the use by alternative carriers in CBD areas of infrastructure other than Telstra's (such as fibre loops) and the availability of Telstra's PSTN O/T and the ULLS as substitutes for the LCS in those areas. Having taken effect from 17 July 2002, the exemption is subject to a number of conditions requiring the provision of information to the Commission in particular circumstances.

At the same time, however, the Commission issued a determination under s152AS of the Act granting a class exemption for all carriers and carriage service providers other than Telstra for the same areas as applies for Telstra's individual exemption. This took effect on 31 July 2002 – the date of gazettal. However, this class exemption was not made subject to any conditions.

¹² Standard zone has the same meaning as in Part 4 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

¹³ ACCC, *Declaration of Local Telecommunications Services*, July 1999.

3. Summary of the undertaking

3.1. Terms and conditions of the undertakings

In order to assess an undertaking, it is necessary to form a view as to what are the terms and conditions of the undertaking.

In this case, Telstra lodged a set of access undertakings with the Commission on 14 November 2003 which largely specify the price-related terms and conditions upon which Telstra undertakes to meet its SAOs to supply the PSTN O/T, the ULLS and the LCS.

The Undertakings have been provided in the form of 6 documents. The undertakings relating to the PSTN O/T and LCS services have been combined to form an undertaking to govern the supply of these services for each of the 2003-04 and 2004-05 financial years while a single document forms undertakings for the PSTN O/T for the 2006-07 financial year. The other 3 documents cover the ULLS for each of the 2003-04, 2004-05 and 2006-07 financial years.

In summary, the Undertakings:

- describe the technical attributes of the services that Telstra will supply;
- specify the prices that Telstra proposes to charge for these services; and
- Set out limited non-price terms and conditions on which the services are to be supplied.

The Undertakings cover the 2003-04 to 2005-06 financial year periods. Telstra claim that the Undertakings include charges or rates which accord with those determined by the Commission in its final determination on model terms and conditions for the cores services, as follows¹⁴:

- 1.25, 1.15 and 1.0 cents per minute for the PSTN O/T in 2003-04, 2004-05, and 2005-06 respectively;
- \$13, \$22, \$40 and \$100 per month for the ULLS in Bands 1, 2, 3 and 4 respectively for 2003-04, 2004-05, 2005-06, with a possible upward adjustment to monthly charges of up to \$6, should the expected take-up of ULLS not eventuate;¹⁵ and
- 13.61 cents per call for the LCS.¹⁶

¹⁴ ACCC, *Final Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003.

¹⁵ Further, in a letter dated 14 November 2003, Telstra agreed not to claim an ADC in regulatory proceedings regarding the price for any of the Undertaking Services for the 2006-07 financial year and beyond, provided the Commission accepts the Undertakings.

¹⁶ The LCS undertakings only relate to the 2003-04 and 2004-05 financial years.

3.2. PSTN Originating and Terminating Access Service undertakings

The proposed PSTN O/T charges in the Undertakings are disaggregated according to geographic area and also separated into flagfall and end-minute-of-use charges. Using assumptions as to average call duration and the percentage of traffic attributable to each geographic area, Telstra claim these disaggregated rates can be aggregated to yield 'headline' rates consistent with the Commission's final determination on model prices for the PSTN O/T. The disaggregated PSTN O/T rates proposed in the Undertakings are shown in Table 3.2.1 - Table 3.2.3 below:

Table 3.2.1 2003-04 undertaking PSTN O/T charges

| 2003-04 | Flagfall (¢) | EMOU charge (¢) |
|--------------|--------------|-----------------|
| CBD | 1.1132 | 0.4946 |
| Metropolitan | 1.1052 | 0.6356 |
| Provincial | 1.2187 | 0.8472 |
| Rural | 2.5129 | 4.1244 |

Table 3.2.2 2004-05 undertaking PSTN O/T charges

| 2004-05 | Flagfall (¢) | EMOU charge (¢) |
|--------------|--------------|-----------------|
| CBD | 0.9891 | 0.4484 |
| Metropolitan | 0.9827 | 0.5863 |
| Provincial | 1.0958 | 0.7922 |
| Rural | 2.3405 | 3.8610 |

Table 3.2.3 2005-06 undertaking PSTN O/T charges

| 2005-06 | Flagfall (¢) | EMOU charge (¢) |
|--------------|--------------|-----------------|
| CBD | 0.7583 | 0.3780 |
| Metropolitan | 0.7534 | 0.5128 |
| Provincial | 0.8661 | 0.7131 |
| Rural | 2.0630 | 3.5863 |

The undertakings in relation to the PSTN O/T do not contain non-price terms and conditions other than those that oblige Telstra to meet its statutory obligations to treat access seekers in accordance with the non-discriminatory provisions of the Act.

3.3. Unconditioned Local Loop Service undertakings

The proposed ULLS charges in the Undertakings related only to the services connected to an RSS/RSU. Telstra did not submitted proposed charges for services connected to an IRIM/RIM/CMUX as currently there is only a limited demand for these connections. The following tables outline the ULLS monthly charges for 2003-04 and the base ULLS monthly charges for 2004-05 and 2005-06 financial years.

Table 3.3.1 ULLS charges

| | Monthly ULLS charge for services connected at RSS/RSU |
|--------|---|
| Band 1 | \$13 |
| Band 2 | \$22 |
| Band 3 | \$40 |
| Band 4 | \$100 |

The undertakings for 2004-05 and 2005-06 financial years provided for the monthly charges to be adjusted should the expected demand for ULLS not eventuate. Table 3.3.2 and Table 3.3.3 outline the increase/decrease, which were proposed, in the 2004-05 ULLS charge for a particular ULLS demand level as determined at 30 June 2004.

Table 3.3.2 2004-05 downward price adjustment schedule

| Number of total ULLS connected as at 30 June 2004 | Decrease in monthly ULLS charge |
|---|---------------------------------|
| 58,301 - 63,600 | \$1 |
| 63,601 - 68,900 | \$2 |
| 68,901 - 74,200 | \$3 |
| 74,201 - 79,500 | \$4 |
| 79,501 - 84,800 | \$5 |
| 84,801 - 90,100 | \$6 |

Table 3.3.3 2004-05 upward price adjustment schedule

| Number of total ULLS connected as at 30 June 2004 | Increase in monthly ULLS charge |
|---|---------------------------------|
| 42,400 - 47,699 | \$1 |
| 37,100 - 42,399 | \$2 |
| 31,800- 37,099 | \$3 |
| 26,500 - 31,799 | \$4 |
| 21,200 - 26,499 | \$5 |
| 15,900 - 21,199 | \$6 |

Similarly, Table 3.3.4 and Table 3.3.5 outline the increase/decrease, which were proposed, in the 2005-06 ULLS charge for a particular ULLS demand level as determined at 30 June 2005.

Table 3.3.4 2005-06 downward price adjustment schedule

| Number of total ULLS connected as at 30 June 2005 | Decrease in monthly ULLS charge |
|---|---------------------------------|
| 154,001 - 168,000 | \$1 |
| 168,001 - 182,000 | \$2 |
| 182,001 - 196,000 | \$3 |
| 196,001 - 210,000 | \$4 |
| 210,001 - 224,000 | \$5 |
| 224,001 - 238,000 | \$6 |

Table 3.3.5 2005-06 upward price adjustment schedule

| Number of total ULLS connected as at 30 June 2005 | Increase in monthly ULLS charge |
|---|---------------------------------|
| 112,000- 125,999 | \$1 |
| 98,000 - 111,999 | \$2 |
| 84,000 - 97,999 | \$3 |
| 70,000- 83,999 | \$4 |
| 56,000 - 69,999 | \$5 |
| 42,000 - 55,999 | \$6 |

The undertakings in relation to the ULLS did not contain many non-price terms and conditions.

As with the undertakings relating to the PSTN O/T access, Attachment G of the ULLS undertakings documents contained statements to the effect that Telstra is obliged to meet its statutory obligations to treat access seekers in accordance with the non-discriminatory provisions of the Act.

In addition, there are provisions requiring access seekers to acknowledge that Telstra has unlimited rights to modernise its network which may include requiring access seekers using the ULLS to relocate their equipment and facilities.¹⁷

3.4. LCS undertakings

The LCS prices proposed for 2003-04 and 2004-05 are 13.61 cents per call.

The undertakings in relation to the LCS do not contain non-price terms and conditions other than those that oblige Telstra to meet its statutory obligations to treat access seekers in accordance with the non-discriminatory provisions of the Act.

¹⁷ Clause 6 of Attachment A of the three Undertakings relating to the ULLS.

4. Legislative Background

4.1. Form and contents of an undertaking

Section 152BS of the Act provides that an access undertaking is a written document given to the Commission under which the relevant carrier or provider undertakes to comply with the terms and conditions specified in the undertaking in relation to the applicable SAOs.

Section 152BS sets out that an undertaking may be one of the following types:

- an undertaking containing terms and conditions that are specified in the undertaking; or
- an undertaking where the terms and conditions are specified by adopting a set of model terms and conditions set out in the telecommunications access code, as in force at that time.¹⁸

Telstra's undertaking falls into the first category, namely, the terms and conditions are specified in the undertaking.

4.2. Criteria for acceptance of an undertaking

Section 152BV sets out the matters which the Commission must be satisfied before it can accept the undertaking. It applies where an ordinary access undertaking is given to the Commission and the undertaking does not adopt a set of model terms and conditions set out in the telecommunications access code. As noted above, Telstra's undertaking is an ordinary access undertaking.

Each of the matters set out in s. 152BV are explained in turn below.

4.2.1. Public process

Sub-section 152BV(2)(a) of the Act provides that the Commission must not accept an undertaking unless:

- the Commission has published the undertaking and invited people to make submissions on the undertaking; and
- considered any submissions that were received within the time limit specified by the Commission when it published the undertaking.

Commission's preliminary view

In accordance with sub-section 152BV(2)(a) of the Act, the Commission published the Undertakings and, at the same time, released its *Assessment of Telstra's core services undertakings – preliminary view*¹⁹ (the Discussion Paper), inviting interested parties to make submissions over a prescribed period of time (the 'Consultation Period') on that paper's findings and the Commission's preliminary view that it accept the Undertakings. The Consultation Period formally expired on 15 March 2004.

¹⁸ Section 152BS(3) and (4).

¹⁹ ACCC, *Assessment of Telstra's core services undertakings – preliminary view*, 12 December 2003.

The Commission decided to release a preliminary view at an early stage in the assessment process because it had undertaken extensive work on the assessment of appropriate price terms and conditions for the supply of the core services, had consulted widely with interested parties on all relevant issues, and was therefore well placed to provide a preliminary view for comment.

In particular, pursuant to s152ABQ, the Commission had determined model terms and conditions in October 2003, to remain in force for a period of 5 years, unless sooner revoked.²⁰ In making this determination, the Commission noted that it would be relevant to the Commission's assessment of access undertakings relating to a core service (as well as in any access arbitration).

The principal purpose of the model or indicative prices was to provide clear guidance about the Commission's views as to what constitutes fair terms and conditions of access to these services. Parties would therefore have an indication of the likely outcome from arbitration of a particular issue, thereby encouraging parties to reach commercial agreement on access or, for the access provider, that it consider submitting an access undertaking in similar terms.²¹

The model price terms and conditions determination included indicative prices, which Telstra appeared to have adopted in its (14 November 2003) Undertakings. The Undertakings replaced those offered in its 9 January 2003 undertakings relating to the same core services. While not endorsing Telstra's submissions which it provided in support of the Undertakings²², the Commission formed a preliminary view to accept the Undertakings because, whatever the underlying justification for its proposals, the prices terms and conditions appeared, on their face, to be consistent with those determined by the Commission in its model price terms and conditions determination.

Also, as expressed in its Discussion Paper, the Commission considered, at that time, that the release of a draft report/decision inviting further submissions was unnecessary because the Undertakings appeared largely to have followed the terms of the indicative or model price determination. The Commission therefore indicated that it intended to move directly to the making of a final decision on whether to accept or reject the Undertakings upon receiving submissions on its Discussion Paper.

However, in deciding whether to accept or reject the Undertakings, the Commission indicated that it would consider all submissions made and submitted by the end of the Consultation Period. Also, it advised interested parties that they could make reference to submissions previously provided in both the earlier 9 January 2003 undertakings process and the model price terms and conditions determination process.

Submissions from Telstra and interested parties

Telstra's submissions to the Undertakings referred to the submissions it had made in respect of 9 January 2003 undertakings and during the model price terms and conditions process. However, Telstra updated its submissions in relation to inputs for use in its PIE II model and resultant changes in modelled costs.

²⁰ ACCC, *Final Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003. A draft determination was made in June 2003.

²¹ In this regard, see Explanatory Memorandum, *Telecommunications Competition Bill 2002*, p. 39

²² Telstra, for example, noted that its proposals were well below its TSLRIC determined costs for these services.

The Commission also received a large number of submissions from a number of interested parties by the end of the designated Consultation Period. In some instances, parties referred the Commission to previous submissions made on similar issues in the context of the Commission's consideration of Telstra's 9 January 2003 undertakings on the core services and the Commission's determination of model terms and conditions for the core services. However, some parties also raised significant new issues.

Further, under s 152BT of the Act, and after the Consultation Period, the Commission requested additional information from Telstra in order to assist its assessment of the Undertakings.²³ In particular, these requests sought information relating to data used by Telstra to arrive at disaggregated PSTN interconnection rates and whether these accorded with the aggregated ('headline') charges determined by the Commission in its final determination on model terms and conditions for the PSTN O/T.

A list of submissions made and supplementary submissions provided in response to the Commission's information requests is provided in Appendix E. To the greatest extent possible, the Commission has posted electronic copies of submissions on its website (<http://www.accc.gov.au>). Where parties have provided submissions in confidence or, where parts of submissions have contained confidential information, as claimed by submitters, this has not been included on the website.

Consultation after release of the Commission's preliminary view

The Commission's then stated view in its Discussion Paper not to release a formal draft report for comment was criticised by some parties as being inconsistent with due process requirements.

However, in correspondence with interested parties after the release of its Discussion Paper, the Commission foreshadowed the possibility of limited consultation with a party where it formed a tentative view to either accept or reject the Undertakings, based on new information not available to a party before the end of the Consultation Period, and where such a decision may be contrary to that party's interests. This was considered appropriate to meet the Commission's due process obligations but to also expedite consideration of the Undertakings as much as possible.

After the expiration of the Consultation Period, a number of additional matters were raised by the Commission with Telstra and additional information was provided in relation to the PSTN O/T undertakings. The late receipt of substantive additional information from Telstra on its traffic and call assumptions (following a series of earlier responses which did not fully address the issue) required significant further examination by the Commission and a further broader consultation process than was originally intended. These matters went to the question of whether the disaggregated charges, expressed as flag fall and usage charges by geographic region were consistent with the 'headline' PSTN rates determined by the Commission, as part of its model terms and conditions determination.

Accepting certain call types meant that the PSTN disaggregated rates in Telstra's undertakings were broadly consistent with the Commission's previous model headline

²³ These requests have the effect of 'stopping the clock' for the undertaking which must be considered by the Commission within a six month timeframe. Four such requests have been made by the Commission to date.

rates. The Commission therefore came to a draft, but qualified, view that there appeared to be broad consistency between the disaggregated charges, as set out in the rate tables in the PSTN O/T undertakings and the Commission's headline rates. This suggested that the undertakings relating to the PSTN O/T were acceptable. However, before forming a final view on this matter, the Commission considered that interested parties should be given an opportunity to comment, especially because the information that had been provided by Telstra and assessed by the Commission since the end of the Consultation Period had not previously been made available to any other party.

In addition to commenting on the PSTN rates issue, the Commission believed that parties should be given an opportunity to comment on an alternative approach to the recovery of ULLS-specific costs.

Accordingly, the Commission considered that it was appropriate to provide parties with the opportunity to comment on a comprehensive draft report detailing proposed decisions on the Undertakings so as to provide parties with an opportunity to comment on new information and developments which had come to light since the Consultation Period. The draft decision was released for comment on 14 October 2004. For this reason an extension of the assessment period was made, pursuant to section 152BU(7).

Consultation after release of the Commission's draft view

The Commission received submissions on the draft report from AAPT, Optus, CCC and Telstra. These submissions discussed the Commission's specific questions relating to traffic distributions for the PSTN and helped the Commission come to the view that Capped Local Calls (CLC) can reasonably be included in the traffic distribution for calculating PSTN headline rates.

In addition, several access seekers welcomed the draft decision to reject the ULLS undertaking and also urged the Commission to commence a reassessment of the local call service as soon as possible. Finally, Telstra raised some methodological points relating to modelling and the access deficit. While these points are not germane to the assessment of the undertakings they are dealt with in the relevant sections of this report.

The Commission's final decisions and its reasons for making its decisions take into account these submissions but in general these Commission's views remains consistent with the view that were presented in the draft report.

4.2.2. Consistency with the standard access obligations

Sub-section 152BV(2)(b) provides that the Commission must not accept an undertaking unless the Commission is satisfied that the undertaking is consistent with the SAOs that are applicable to the carrier or provider.

The SAOS are set out in s. 152AR of the Act. In summary, if requested by a service provider, an access provider is required to:

- supply of the declared service;
- take all reasonable steps to ensure that the technical and operational quality of the service supplied to the service provider is equivalent to that which the access provider is supplying to itself;

- take all reasonable steps to ensure that the fault detection, handling and rectification which the service provider receives in relation to the declared service is of equivalent technical and operational quality as that provided by the access provider to itself;
- permit interconnection of its facilities with the facilities of the service provider;
- take all reasonable steps to ensure that the technical operational quality and timing of the interconnection is equivalent to that which the access provider provides to itself;
- if a standard is in force under s. 384 of the *Telecommunications Act 1997*, take all reasonable steps to ensure that the interconnection complies with the standard;
- take all reasonable steps to ensure that the service provider receives interconnection fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself;
- provide particular billing information to the service provider; and
- supply additional services in circumstances where a declared service is supplied by means of conditional-access customer equipment.

The question of whether Telstra's undertaking is consistent with any applicable SAOs is considered in Section 5.

4.2.3. Consistency with Ministerial pricing determination

Division 6 of Part XIC of the Act provides that the Minister may make a written determination setting out the principles dealing with price-related terms and conditions relating to the SAOs.²⁴

Paragraph 152BV(2)(c) provides that the Commission must not accept an undertaking dealing with price or a method of ascertaining price unless the undertaking is consistent with any Ministerial pricing determination.

To date, a Ministerial pricing determination has not been made. Accordingly, the Commission is not required to access the undertaking under this criterion.

4.2.4. Whether terms and conditions are reasonable

Sub-section 152BV(2)(d) of the Act provides that the Commission must not accept an undertaking unless the Commission is satisfied that the terms and conditions specified in the undertaking are reasonable.

In forming a view about whether particular terms and conditions are reasonable, the Commission must have regard to the range of matters set out in s. 152AH(1) of the Act. In the context of assessing Telstra's undertaking, these are:

²⁴ Section 152CH of the Act. 'Price-related terms and conditions' means terms and conditions relating to price or a method of ascertaining price.

- whether the terms and conditions promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services (the ‘long-term interests of end-users’);
- the legitimate business interests of Telstra, and its investment in facilities used to supply the declared services;
- the interests of all persons who have rights to use the declared services;
- the direct costs of providing access to the declared services;
- the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or facility; and
- the economically efficient operation of a carriage service, a telecommunications network or a facility.

In addition, the Commission may consider any other relevant matter.²⁵

Set out below is a summary of the key phrases and words used in the above matters. While, in general, these phrases and words have not been the subject of judicial interpretation, in order to have regard to those matters it is necessary for the Commission to form a view as to what they mean.

Long-term interests of end-users

The Commission has published a guideline explaining what it understands is meant by the phrase ‘long-term interests of end-users’ in the context of its declaration responsibilities.²⁶ A similar interpretation would seem to be appropriate in the context of assessing an undertaking.

In the Commission’s view, particular terms and conditions promote the interests of end-users if they are likely to contribute towards the provision of goods and services at lower prices, higher quality, or towards the provision of greater diversity of goods and services.²⁷

To consider the likely impact of particular terms and conditions, the Act requires the Commission to have regard to whether the terms and conditions are likely to result in the achievement of the following objectives:

- the objective of promoting competition in markets for carriage services and services supplied by means of carriage services;
- for carriage services involving communications between end-users, the objective of achieving any-to-any connectivity; and

²⁵ Section 152AH does not use the expression ‘any other relevant matter’. Rather, s. 152AH(2) states that the matters listed in s. 152AH(1) do not limit the matters to which the Commission may have regard. Thus, the Commission may consider any other relevant matter.

²⁶ ACCC, *Telecommunications Services — Declaration Provisions: a Guide to the Declaration Provisions of Part XIC of the Trade Practices Act*, July 1999.

²⁷ *Ibid*, pp. 32-33.

- the objective of encouraging the economically efficient use of, and economically efficient investment in, infrastructure by which carriage services and services provided by means of carriage services are supplied.²⁸

In the Commission's view, the phrase 'economically efficient use of, and economically efficient investment in ... infrastructure' refers to the concept of economic efficiency. This concept consists of three components:

- Productive efficiency. This is achieved where individual firms produce the goods and services that they offer at least cost.
- Allocative efficiency. This is achieved where the prices of resources reflect their underlying costs so that resources are then allocated to their highest valued uses (i.e. those that provided the greatest benefit relative to costs).
- Dynamic efficiency. This reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

Legitimate business interests and direct costs

The Commission is of the view that the concept of legitimate business interests should be interpreted in a manner consistent with the phrase 'legitimate commercial interests' used elsewhere in Part XIC of the Act. Accordingly, it would cover the carrier's or carriage service provider's interest in earning a normal commercial return on its investment.

This does not, however, extend to receiving compensation for loss of any 'monopoly profits' that occurs as a result of increased competition. In this regard, the Explanatory Memorandum for the Trade Practices Amendment (Telecommunications) Bill 1996 states:

... the references here to the 'legitimate' business interests of the carrier or carriage service provider and to the 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market.

When considering the legitimate business interests of the carrier or carriage service provider in question, the Commission may consider what is necessary to maintain those interests. This can provide a basis for assessing whether particular terms and conditions in the undertaking are necessary (or sufficient) to maintain those interests.

Interests of persons who have rights to use the declared service

Persons who have rights to use a declared service will, in general, use that service as an input to supply carriage services, or a service supplied by means of carriage services, to end-users. In the Commission's view, these persons have an interest in being able to compete for the custom of end-users on the basis of their relative merits. Terms and conditions that favour one or more service providers over others and thereby distort the competitive process may prevent this from occurring and consequently harm those interests.

While s. 152AH(1)(c) directs the Commission's attention to those persons who already have rights to use the declared service in question, the Commission can also

²⁸ Sub-section 152AB(2) of the Act.

consider the interests of persons who may wish to use that service. Where appropriate, the interests of these persons may be considered to be ‘any other relevant consideration’.

Economically efficient operation of, and investment in, a carriage service

In the Commission’s view, the phrase ‘economically efficient operation’ embodies the concept of economic efficiency set out in section 6.1.1. It would not appear to be limited to the operation of carriage services, networks and facilities by the carrier or carriage service provider supplying the declared service, but would seem to include those operated by others (e.g. service providers using the declared service).

To consider this matter in the context of assessing an undertaking, the Commission may consider whether particular terms and conditions enable a carriage service, telecommunications network or facility to be operated in an efficient manner. This may involve, for example, examining whether they allow for the carrier or carriage service provider supplying the declared service to recover the efficient costs of operating and maintaining the infrastructure used to supply the declared service under consideration.

In general, there is likely to be considerable overlap between the matters that the Commission takes into account in considering the long-term interests of end-users and its consideration of this matter.²⁹

The question of whether Telstra’s Undertakings are reasonable is considered in Section 6.

4.2.5. Expiry date

Sub-section 152BS(7) of the Act provides that the undertaking must specify the expiry time of the undertaking. Further, s. 152BV(2)(e) provides that the expiry time of the undertaking must be within 3 years after the date on which the undertaking comes into operation.

The Undertakings, in relation to the PSTN O/T and the ULLS, are to expire by no later than 30 June 2006, and, in relation to the LCS, by no later than 30 June 2005. Thus, as the Undertakings are yet to come into operation, the expiry dates provided in the Undertakings are within the 3 years required by the Act.

4.3. Assessment of combined undertakings

As noted in section 3.1, Telstra has chosen to combine the undertakings relating to the LCS and PSTN O/T for the 2003-04 and 2004-05 financial years. The Commission considers this to mean that, if the terms and conditions applying to either of the LCS or the PSTN O/T were found not to be reasonable, then rejection of the undertakings applying to the other service would also apply.

Under Part XIC, the Commission is unable to accept part of an undertaking whilst rejecting other parts. Similarly, if an undertaking is given that fuses two services, the Commission cannot selectively accept parts dealing with one service, whilst rejecting

²⁹ Relevantly, in considering whether particular terms and conditions will promote the long-term interests of end-users, the Commission must have regard to their likely impact on the economically efficient use of, and economically efficient investment in, the infrastructure by which carriage services and services provided by means of carriage services are supplied.

parts dealing with the other service. Part XIC does not provide for any form of selective or partial acceptance of an undertaking.

In relation to these Undertakings, however, the Commission, as outlined in section 0, has formed the view that the Undertakings relating to both the supply of the LCS and the PSTN O/T are reasonable.

4.4. Procedural matters

4.4.1. Confidentiality

In arriving at its final view, the Commission has relied on commercial-in-confidence information supplied by Telstra and interested parties. The Commission has assessed this material in terms of its policy on treatment of information³⁰ and has determined that, in most instances, it should not reproduce that material in this report.

Accordingly, where information that is commercially sensitive has been relied upon in reaching a conclusion in this report, it has either been aggregated to a level such that it is no longer of commercially sensitive or, where this is not possible, it has been masked with the designation [c-i-c]. Unless it is otherwise indicated, the information masked with [c-i-c] is information provided by Telstra over which it has made a confidentiality claim.

The Commission recognises that its decision making processes should be as transparent as practicable, and in this regard notes the opportunity for interested parties to obtain the commercial-in-confidence information from the provider of that information upon the giving of appropriate undertakings. The Commission notes that interested parties have been able to negotiate such undertakings in respect of some of the confidential information that has been relied upon by the Commission.

The Commission notes that, unless it can corroborate commercial-in-confidence information in some way, it is constrained in the weight that it can give to information that has not been subject to broader industry scrutiny. In certain instances, where it is not possible to otherwise corroborate information, or where parties are unable to agree to the terms of provision of commercial-in-confidence information, the Commission would consider requests for it to supply the information so as to allow its scrutiny.

4.4.2. Information requests and further submissions from Telstra

The Commission has the power under s152BT(2) to request that the applicant give the Commission further information about the undertaking in order to facilitate the Commission's consideration of the undertaking.

Since the date of lodgement of the Undertakings, the Commission has formally requested further information of Telstra and Telstra has made (supplementary) submissions in response to these requests. Two such requests were made under s152BT(2).

4.4.3. Information relied upon

The Commission, in its assessment of the Undertakings, has primarily used the supporting submission of Telstra, and the further submissions provided pursuant to

³⁰ ACCC, *Collection and Use of Information*, 2000.

the Commission's requests for further information, as well as the submissions of interested parties made pursuant to the Commission's Discussion Paper. As noted, these submissions are listed at Appendix E.

4.4.4. Decision-making period

The Commission has a 6 month statutory time frame by which it must make a decision to accept or reject an access undertaking. For the purposes of calculating the 6 month timeframe certain periods of time are disregarded. In particular, the time it takes between when the Commission makes a request for further information (under s.152BT of the Act) and when an access provider has furnished the information requested is disregarded, as is the time between when the Commission publishes an undertaking (and seeks submissions³¹) and the due date for receipt of those submissions (the 'Consultation Period').

For this assessment of the Undertakings, the 'clock was stopped' while responses to information requests were prepared and for the duration of the consultation period. This process has resulted in the six-month assessment period being extended into October 2004.

The Commission notes that it has seen a need to exercise its power, under sub-section 152BU(7) of the Act, to extend the time it has to make a decision by up to a further 3 months. The reason for this extension was due to the need for consideration of further issues relating to traffic data for the PSTN rate table which did not come to light until well after the Consultation Period. The Commission has given Telstra written notice of this extension to the decision-making period, which has been placed on the Commission's website, as required by sub-section 152BU(8) of the Act.

³¹ See sub-section 152BV(2)(a) of the Act.

5. Consistency with standard access obligations

5.1. The standard access obligations

Under s. 152BV(2)(b), the Commission must not accept the Undertakings unless it is satisfied that they are consistent with the SAOs that are applicable to Telstra. The SAOs are set out in s. 152AR of the Act and they require that an access provider that supplies a declared service to itself or others must comply with the specified obligations. These obligations were detailed above in section 4.2.1.

In relation to the declared PSTN O/T, the ULLS and the LCS, most of the SAOs detailed in section 4.2.1 apply to Telstra. The exceptions include the SAOs that would apply if a relevant standard was in force under s. 384 of the *Telecommunications Act 1997* and the SAOs that relates to a declared service supplied by means of conditional-access customer equipment. These obligations do not apply to Telstra in relation to the declared PSTN O/T, the ULLS and the LCS.

5.2. Approach to assessing consistency with the standard access obligations

The Act does not detail a specific approach to be adopted for assessing whether the terms and conditions in an undertaking are consistent with the access provider's SAOs. In this regard, the Commission finds it useful to consider whether the terms and conditions specified in an undertaking raise any inconsistencies with the SAOs. That is, if the terms and conditions are not inconsistent with the obligations, the Commission is likely to regard them as being consistent with the obligations.

The Commission considers that terms and conditions specified in an undertaking would be inconsistent with the SAOs if an access provider acting in accordance with those terms and conditions could not satisfy each of the obligations. Such inconsistency could arise either expressly, or, by implication from the circumstances in which the terms and conditions could be satisfied.

The purpose of this assessment is to ensure that an access provider would comply with the SAOs should the Undertakings be accepted. The Commission is not here concerned with the reasonableness of the terms and conditions of the Undertakings. Reasonableness is assessed separately in Section 0.

In making this assessment, it has been necessary for the Commission, on occasion, to interpret how the Undertakings would operate. Any such occasions that are considered as having a material impact on the Commission's assessment are noted below.

If the Commission considered the terms and conditions of an undertaking compromised the access providers' obligation to wholly satisfy each of its SAOs under section 152AR then the Commission is likely to consider the undertaking to be inconsistent with the SAOs.

In determining consistency with the SAOs, the Commission has especially considered whether the non-price terms and conditions specified in the Undertakings (including the attachments) raise any potential inconsistencies with each of the applicable SAOs. The price terms and conditions are more relevant to an assessment under the reasonableness criteria which, as noted, is covered in Section 6.

5.3. Assessment

Clause 3.1 of each of the respective undertakings provides that Telstra will comply with the terms and conditions specified in the various attachments to the Undertakings in relation to the SAOs that are applicable to Telstra.

These terms and conditions principally relate to matters of pricing, although the attachments also contain clauses that may be classified as non-price terms and conditions.

The Undertakings adopt, as a drafting technique, the specification of services of particular technical attributes (which are referred to as ‘Telstra services’) and to then set out the terms and conditions upon which these Telstra services will be supplied. These terms and conditions are not exhaustive of all the matters upon which an access provider and access seeker would be required to reach agreement in respect of the supply of the services.

5.3.1 Non-exhaustive scope of the undertakings

While the price and non-price terms and conditions that are contained in the Undertakings do not cover all of the matters relating to the supply of a service, it is the Commission’s view that it is not necessary for an undertaking to exhaustively address all matters that could relate to the applicable SAOs.

Any relevant matters that are not addressed in the Undertakings could be settled by commercial negotiation. However, should the parties be unable to reach agreement, these could be determined by the Commission by arbitration if a dispute was notified.

Accordingly, the Commission considers that the absence of terms and conditions about certain matters does not make an undertaking inconsistent with the SAOs.

5.3.1. Whether the undertakings specify terms and conditions in respect of services other than the Telstra services

The Commission notes that there could be some uncertainty as to the scope of the Undertakings as they specify terms and conditions pertaining to services which are defined differently and not in the precise form as that used to define the relevant declared services. Further, in certain respects, the Telstra services would appear of more limited scope than the declared services. Some of these limitations are noted below.

The Commission interprets the Undertakings in such a way that the price and non-price terms specified in the Undertakings would apply *only* in respect of the services supplied by Telstra (the Telstra Services) and not the relevant (corresponding) declared services to the extent that there may be differences in definition or specification. In other words, Telstra could not be required, pursuant to its Undertakings, to supply on the price and non-price terms set out in the Undertakings, an instance or form of the declared service that was other than or beyond the scope of a Telstra Service.

On the other hand, the Commission interprets the Undertakings as not specifying terms and conditions upon which Telstra would be required to supply an instance or form of the declared service that might fall outside the scope of a Telstra Service. In other words, the Undertakings specify the terms and conditions upon which Telstra will satisfy its SAOs in respect of only the Telstra Services and not any other instance or form of the declared services.

If the Undertakings were interpreted differently, as specifying terms and conditions in respect of *all* instances or possible forms of the declared services, then Telstra could, in accordance with the Undertakings, refuse to supply any instance or form of the declared service other than the Telstra Service. Were such an interpretation to be given to the Undertakings, the Commission could not be satisfied that the Undertakings were consistent with Telstra's SAOs.

Accordingly, the views expressed below have been formed on the basis that the Undertakings specify terms and conditions only in respect of the supply of Telstra Services and not every possible form of the relevant declared services more generally.

The practical consequence of this distinction depends upon the extent to which a Telstra service would not actually cover all instances of the corresponding declared service.

By way of illustration, the Commission notes the following limitations in respect of the PSTN O/T:

- the Telstra service is provided for the purpose of supplying the end-to-end services listed at clause 2.3 of Attachment A of the PSTN O/T /LCS undertakings. There is no requirement for the Telstra service to be supplied in respect of other end-to-end services in respect of which the deeming statement may require domestic PSTN originating access to be supplied.

The Commission also notes the following limitations in respect of the ULLS:

- the Telstra service will support a connection with DC continuity – there is no requirement for the Telstra service to support any other service; and
- the Telstra service involves the use of a continuous metallic twisted pair, whereas the declared service involves the use of an unconditioned copper based wire.

Further, the Commission notes the following limitations in respect of the LCS:

- the Telstra service excludes carriage of local calls for the purposes of supplying the services listed at clause 1.2 of Attachment E of the PSTN O/T /LCS undertakings. To the extent that any of the services there listed would be an instance of the declared service, they are excluded from the Telstra service.

However, at this point in time, the Commission's consultation with access seekers has not revealed any significant current or prospective use of the relevant declared services that would not fall within the scope of the services definitions or specifications in the Undertakings and, given the mature nature of this services, there appears relatively little likelihood that such a use will now emerge.

This said, as a matter of principle and policy, if an access seeker was to seek access to another form of a declared service that Telstra has purported to cover in its Undertakings, that is, in a form other than as defined or specified in the Undertakings, then it is the Commission's view that it would be open to the access seeker to seek to negotiate access to a different form of the declared service from Telstra and, if necessary, to seek the Commission's use of its arbitration powers were it not able to agree on terms and conditions of access to such a form of the declared service.

5.3.2. Supply, quality and fault handling in relation to the declared services

The attachments to the Undertakings specify technical aspects relating to supply of the Telstra services. The Commission has previously sought industry comment on the appropriateness of these or quite similar technical attributes. The Commission has not, however, received submissions contending that these technical attributes would be inconsistent with the obligation to provide services of an equivalent technical and operational quality. On their face, the provisions of the Undertakings do not appear to be inconsistent with this obligation insofar as they relate to the Telstra services.

The Undertakings do not contain provisions specifying how Telstra will satisfy its obligations in respect of the quality and timing of fault detection, handling and rectification in respect of the Telstra services. Nor do they contain provisions relating to the commencement, refusal, suspension or termination of supply.

The Commission does not consider that this makes the Undertakings inconsistent with the SAOs specified in section 152AR(3) of the Act. Rather, Telstra has simply chosen not to specify in these undertakings all aspects concerning how these obligations will be satisfied in respect of the Telstra services. The Commission considers that, should agreement not be reached in respect of these matters, any such disagreement could fall for resolution by the Commission in arbitration.³²

The Commission is of the view that the Undertakings are not inconsistent with the standard access obligations in relation to the supply and quality of the Telstra services and related fault handling obligations.

5.3.3. Interconnection of facilities

The attachments to the Undertakings concerning the domestic PSTN O/T specify how the location of points of interconnection (POI) between Telstra's network and the service provider's network are to be determined. In particular, the Undertakings specify that calls provided using the declared PSTN services will be handed over at a POI agreed by Telstra and the service provider.

In this regard, these undertakings state that Telstra will provide a 'POI Availability List' setting out where the POI may be located. A service provider may request interconnection at a location other than one listed and, where such a request is made, Telstra *will negotiate in good faith* and subject to the reasonableness and feasibility of establishing additional points of interconnection.

The Undertakings do not contain further provisions relating to the technical and operational quality and timing of interconnection, or provisions in relation to interconnection, fault detection, handling and rectification.

The Commission considers that these terms and conditions would not make the Undertakings inconsistent with the SAO to permit interconnection of facilities (s. 152AR(5)). Further, while Telstra has chosen not to specify in its Undertakings all the terms concerning interconnection of facilities, the Commission does not consider that this makes the Undertakings inconsistent with the SAO to permit interconnection of facilities (s. 152AR(5)). Should the negotiations contemplated by the terms and

³² It should be noted that the Commission has also published its views on the model (non-price) terms and conditions of these core services and this determination would also inform any dispute in relation to such matters.

conditions, or negotiations concerning other aspects of facilities interconnection, not result in agreement, the Commission considers that those matters could fall for determination by the Commission in arbitration.

The Commission considers that the Undertakings are not inconsistent with the SAOs relating to interconnection of facilities.

5.3.4. Provision, timing and content of billing information

Sub-section 152AR(7) of the Act provides that the billing information that must be provided by an access provider to a service provider must be given at such times and in a manner ascertained in accordance with the *Trade Practices Regulations*. Regulation 28S provides that billing information must be given in a manner and form, and at the times agreed by the access provider and service provider. It also sets out the type of billing information that must be given.

In this regard, the Undertakings in respect of the Domestic PSTN Originating Access service states that Telstra will provide service providers with ‘Communication Information’. ‘This is defined as the information to be provided by Telstra in accordance with the regulation made under s. 152AR(6) and (7) of the Act, or in the absence of such a regulation, the information agreed by Telstra and the service provider. The Undertakings do not contain further terms and conditions in relation to the provision, timing and content of billing information.

The Commission is of the view that the Undertakings are not inconsistent with the SAOs in relating to billing information.

5.3.5. Conclusion

The Commission considers that the Undertakings are not inconsistent with Telstra’s SAOs.

However, the Commission wishes to emphasise that it considers the Undertakings cover only certain forms of the declared services – Telstra’s Services – and that it would be open to access seekers to seek other forms of the declared services, including by recourse to arbitration by the Commission if agreement cannot be reached between Telstra and the access seeker. This said, the Commission acknowledges that it is unlikely that access seekers would seek to access the declared services in different forms from that specified by Telstra in its Undertakings.

6. Reasonableness of the terms and conditions

6.1. The proposed core service access prices

6.1.1. PSTN O/T

Telstra's proposed rates

Telstra's PSTN O/T service undertakings were lodged with the Commission in November 2003 following publication of the Commission's model price terms and conditions determination for core services in October 2003. Telstra stated that the undertakings were consistent with the model prices. In its draft report the Commission showed that the effective PSTN O/T headline rate is very sensitive to assumptions about call holding time (CHT) and the geographic distribution of PSTN traffic. Further the Commission noted that industry had raised questions regarding the appropriateness of Telstra's assumptions.

In particular, the PSTN O/T model price terms and conditions provided headline per-minute rates for an average PSTN O/T call. These rates, set out in Table 6.1.1, were considered to meet the reasonableness criteria. The headline rates provided the average per-minute price of calls made by access seekers, and can be disaggregated—providing a separate price for flagfall and minutes of use in each of the geographic areas. In response to the model rates, Telstra's undertakings provide disaggregated PSTN rate tables which it claims conform to the model prices (see Table 3.2.1 – Table 3.2.3).

Table 6.1.1 Commission's model prices for PSTN O/T service

| | 2003-04 | 2004-05 | 2005-06 |
|------------------------|---------|---------|---------|
| Headline Rate/ MOU (¢) | 1.25 | 1.15 | 1.00 |

The method Telstra uses to calculate the disaggregated rates relies directly on the PIE II model. As discussed in Appendix C, this model has been subject to much criticism both from the Commission and from industry and is seen as inappropriate for the purpose of setting acceptable undertaking rates. However, based on CHT and traffic distribution data which the Commission considers to be reasonable, disaggregated rates proposed in the PSTN O/T undertakings amount to the headline rates in Table 6.1.2. The Commission's draft report indicated that the acceptance of this data was conditional on the appropriateness of including Capped Local Calls (CLC). Industry comments on the draft have led the Commission to conclude that it is, indeed, reasonable to include CLC in the traffic distributions (see below) and the figures in Table 6.1.2 are therefore a reasonable estimate of the effective headline rates.

Table 6.1.2 Headline rates for PSTN O/T service based on Telstra's proposed disaggregated rates

| | 2003-04 | 2004-05 | 2005-06 |
|------------------------|---------|---------|---------|
| Headline Rate/ MOU (¢) | 1.2661 | 1.1630 | 1.0045 |

These headline rates are marginally higher than the Commission's model prices. However, due to uncertainty over what CHT and traffic distributions will eventuate

over the period of the undertakings, the disaggregated rates fall within the range that could be considered reasonable when compared to model price terms and conditions.

Assessment under the reasonableness criteria

The Commission's final determination for model price terms and conditions of the PSTN, ULLS and LCS services noted that a concave price path beginning with then current agreed levels of PSTN prices, and ending with a price based only on conveyance costs by 2006-07 (as outlined in Table 6.1.1 above) achieves the best balance between LTIE and other reasonableness criteria.

This raises the issue of whether the rates evident in Telstra's proposed undertakings (as indicated in Table 6.1.2) meet the regulatory criteria.

Long term interests of end users

The Commission considers that any significant upward shift in an undertakings price path, from that outlined in its model price terms and conditions decision, is not in the long term interest of end users. The impact on competition in markets for downstream services would be detrimental.

Approving such undertakings would allow Telstra to increase effective headline rates faced by access seekers above those considered appropriate by the Commission as per its model rates. As a result, access seekers who faced the undertaking rates would be forced to either pass on increased costs to end users, or face a squeeze on their margins.

In either case, as Telstra's costs would not have changed, it would achieve a competitive advantage over access seekers. If access seekers chose to increase their downstream product prices, Telstra could either follow suit and recover extra rents, or keep its own pricing unchanged thus undercutting its competitors and capturing greater market share. Alternatively, should access seekers accept a squeeze in their margins, Telstra would have a potential competitive advantage in either PSTN downstream markets or any other markets in which both Telstra and access seekers are active.

Having said that, subject to the resolution of issues discussed in Appendix A (and later in this section), the Commission believes that prices in Telstra's PSTN O/T undertakings are not significantly different to those in the model price terms and conditions determination. Therefore, prices in Telstra's PSTN O/T undertakings are in the long term interests of end users.

Any-to-any connectivity

While the objective of any-to-any connectivity is relevant to this assessment, it is not considered that a price different to that in model price terms and conditions would necessarily significantly undermine this objective.

Legitimate business interests and direct costs

The direct costs of providing PSTN O/T services are conveyance costs. As a result, Telstra's legitimate business interests are met if it recovers conveyance costs. However, it was previously believed that government regulations prevent Telstra from recovering the cost of providing access to the PSTN. Therefore, it was previously

considered that a contribution to the recovery of these access costs should be attributed to PSTN O/T services.³³

As illustrated in its model price terms and conditions determination (and in Appendix D to this paper), the Commission believes that the fears of under-recovery of costs of access to the PSTN were unfounded, as Telstra's ability to recover these costs has not been removed due to government controls. Hence, taken in isolation, inclusion of an access deficit contribution (ADC) in PSTN O/T pricing does not meet the relevant regulatory criteria.³⁴ Despite this, the Commission considered that allowing for recovery of costs greater than conveyance costs remains reasonable with respect to legitimate business interests as it allows for a smooth transition between the previous pricing construct (which included an ADC) to one Commission considers appropriate in the future (pricing based solely on conveyance costs).

Telstra's legitimate business interests were considered to be served by the model price terms and conditions as they promoted a more stable regulatory process and allowed for a gradual adjustment from current pricing levels to a level the Commission considers appropriate (thus eliminating possible negative impact of a price shock).

As Telstra's proposed rates do not significantly differ from the Commission's model price terms and conditions, Telstra's legitimate business interests are met.

Interests of persons who have rights to use the declared service

Persons who have the right to use the declared PSTN O/T service will generally use that service as an input to supply of downstream retail services such as STD, IDD and fixed-to-mobile calls. The Commission believes that pricing of PSTN O/T service should be such that it does not artificially protect the service provider, who is also active in providing downstream retail services, from being displaced by a more efficient access seeker.

An access seeker who is at least as efficient as Telstra in providing downstream services to end-users should be able to compete with Telstra on equal terms. This is achieved by setting access prices at a level that Telstra would supply the access service to itself, should it be required to do so explicitly. The Commission believes that this price should be set based on TSLRIC+.

Any upward movement away from the TSLRIC+ price is, strictly speaking, not in the interest of persons using the declared service. However, as indicated above, the Commission considers it desirable to add an increment above a TSLRIC+ based price in order to allow for a smooth transition from current PSTN O/T pricing to that based on TSLRIC+.

As previously noted, Telstra's proposed rates appear to reasonably approximate Commission's model price terms and conditions. Therefore the prices are in the interests of the persons who have the right to use the declared service.

³³ This has variously been termed the access deficit contribution (ADC) and unrecovered PSTN can cost contribution (UPCC).

³⁴ ACCC, *Final Determination For Model Price Terms and Conditions of The PSTN, ULLS And LCS Services*, October 2003, Section 8.

Economically efficient use of, and investment in, a carriage service

As discussed in the Commission's core services model price terms and conditions determination, justifying PSTN O/T prices above TSLRIC+ (for example, prices including an ADC) is becoming more problematic under relevant regulatory criteria. Further, the Commission believes that PSTN O/T prices should be gradually reduced from currently agreed levels (which include an ADC) to those based solely on TSLRIC+ within three years. Efficiency arguments for the removal of the ADC are contained in Section 8.3.2 of the model price terms and conditions determination. Similar arguments may apply to other increments above a TSLRIC+ based price.

However, the Commission is also of the view that sudden significant changes in access pricing are likely to cause a greater degree of uncertainty in the market. Due to the perceived increased risk resulting from a sudden significant change efficient investment in the provision or use of the PSTN may not occur. The Commission's model price terms and conditions eliminate this sudden change through an adjustment path, and since Telstra's proposed prices result in a similar path, they support efficient use of and investment in the service.

Capped Local Calls

A capped local call (CLC), in the current context, is a call that originates on a non-Telstra network – such as Optus' cable or access seeker ULLS – and terminates on Telstra's network in the same local area. .

In the draft report, the Commission raised the question of whether it is appropriate to include CLCs in the traffic data for determining the headline rate and asked several specific questions about CLCs. In response to these questions, the Commission received comments from AAPT, Optus, CCC and Telstra. Optus stated that while there were open issues in relation to CLCs these should not delay acceptance of the undertaking. AAPT noted that it believes that CLCs should be billed on the basis of a 'sender keep all' model, but did not comment on the overall effect of including CLCs in the PSTN O/T traffic distribution. CCC highlighted the importance of including CLCs in any future modelling of the PSTN but did not comment on the appropriateness of including CLCs in the traffic distributions used to derive the headline rate. Finally, Telstra reiterated its view that CLCs are part of the declared service and ought to be included in the traffic distribution.³⁵

Given these views the Commission has determined that it is appropriate to include CLCs in the traffic profile for the purpose of assessing these undertakings. The appropriate treatment of CLCs will, however, be reassessed in a thorough review of the LCS next year (see Appendix B).

Conclusion

The Commission believes that the current PSTN O/T undertakings are consistent with the reasonableness criteria.

³⁵ Telstra also questioned whether the Commission's figure of 1.2 billion CLCs per year was accurate. As CLCs are not an issue in this final decision, the Commission does not have to come to a decision on this matter.

6.1.2. ULLS

Telstra proposed ULLS charges that replicate the Commissions model prices. The undertakings specify a starting price – in the form of a monthly access fee – and an adjustment mechanism which alters prices according to realised demand. Specifically, the starting price applies if and only if the Commission’s demand estimates – which were presented in the model prices – are realised.

The Commission’s draft report concluded that, while the quantum of network costs and ULLS-specific costs appear to be broadly reasonable, the adjustment mechanism is no longer reasonable according to the statutory criteria. The Commission’s view was that Telstra’s actions in the ADSL wholesale and retail markets have rendered the adjustment mechanism an inappropriate method of providing cost recovery for Telstra as was originally intended. Further, the mechanism does not promote the long term interests of end users, the legitimate interests of the access provider nor the interests of the access seeker.

Submissions to the Draft Report, received by the Commission were supportive of the rejection of ULLS undertakings. Optus supported the view that the adjustment mechanism has the potential to delay and distort investment, and believes it is potentially anti-competitive as no such mechanism applies to Telstra’s own DSL services, placing the ULLS user at a competitive disadvantage.

The Competitive Carriers Coalition (CCC) added that Telstra’s demonstrated willingness and ability to manipulate market outcomes, such as ADSL and therefore ULLS demand, makes the adjustment mechanism unacceptable. In addition, CCC believes that the whole question of recovery of ULLS-specific costs must be re-examined, together with other pricing relationships of related retail and wholesale broadband services with the ULLS.

AAPT also agreed with the Commission’s assessment of the adjustment mechanism and the resulting rejection of ULLS undertakings. Further, AAPT believes that Telstra should not be allowed to recover any ULLS-specific cost. Instead, AAPT considers that ULLS (together with the ULLS Telstra supplies to itself), LSS and ADSL retail and wholesale services’ costs should be recovered as part of common costs of the CAN. This, in AAPT’s view would mitigate incentives for Telstra to raise costs of its competitors in the downstream DSL market through non-price discrimination.

Following the Commission’s draft decision to reject the ULLS undertaking in October 2004, Telstra submitted new ULLS undertakings on 13 December 2004, but with no supporting information, and also withdrew the existing ULLS undertaking. These new (December 2004) undertakings³⁶ cover the period 2004-05 to 2005-06. Telstra’s new ULLS undertakings, whilst proposing starting ULLS prices as set out in Commission’s model price terms and conditions, do not propose any adjustment mechanism.

Accordingly, the Commission is not required to formally reject the December 2003 ULLS undertaking as it has been withdrawn, but would re-iterate its earlier views on

³⁶ This also included new undertakings for the line sharing service (LSS), the earlier undertaking of which was rejected by the Commission in August 2004.

the unreasonableness of this undertaking as detailed in sections 5 and 6 and Appendix B of its October 2004 draft report on core service undertakings.

The markets for the supply of the ULLS (and the declared line sharing service) are immature. ULLS-specific costs are highly sensitive to the uptake of the service. Accurate demand estimates are therefore critical to efficient pricing of both the ULLS and LSS services. Since the release of its final decision rejecting Telstra's LSS undertaking in August 2004 and its draft decision to reject the ULLS undertaking in October 2004, the Commission has been conscious that developments in both wholesale and retail broadband markets have had the potential to impact significantly upon the validity of previous conservative demand estimates.

In light of these developments, the Commission advised Telstra of its intention to seek updated demand estimates from prospective access seekers. The Commission has obtained estimates that are suggestive of a substantial demand increase for both the ULLS and LSS services³⁷, which raises the possibility of further reductions in access pricing for both services. The Commission however has not yet had the opportunity to assess the validity of these estimates or seek from Telstra its views upon the accuracy of these estimates.

Telstra's lodgement of new ULLS and LSS undertakings in these circumstances could be regarded as premature. For the reasons set out above, the Commission would caution both access providers and access seekers from inferring an approach to the pricing of the monthly access charge for these services from previous decisions.

6.1.3. Local carriage service

Telstra has provided LCS access undertakings for the 2003-04 and 2004-05 financial years, specifying a GST exclusive price of 13.61 cents per call.³⁸ Therefore, Telstra has decided to apply only one of the LCS pricing options adopted by the Commission in its model price terms and conditions.

However, in its supporting submissions to the Undertaking, Telstra argues that the TSLRIC++ approach should be used to determine the LCS price and that in determining the retail minus retail cost price, avoided costs³⁹ should be deducted from the relevant retail starting price.⁴⁰ The Commission notes that it has previously expressed its views on these matters in its model price terms and conditions, as well as in its *Final report (revised) - Local Carriage Service pricing principles and indicative prices*, (Revised Final Report). In this regard, the following discussion on

³⁷ It should be noted that the Commission's estimates for ULLS-specific costs were based on forecasts derived at the time of the development of its model terms and conditions determination in mid 2003. Since then, and particularly in the past 3-4 months, there has been an apparent significant increase in interest by access seekers in the ULLS (and LSS) as part of a mass-market DSLAM roll-out strategy designed to provide broadband services on their own DSLAM networks.

³⁸ Telstra, *Telstra's Further Submission in Support of its Undertakings dated 14 November 2003*, December 2003.

³⁹ These are costs that Telstra actually avoids as a result of selling LCS to access seekers.

⁴⁰ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, July 2003, pp. 60-1.

the reasonableness of the Undertaking, having regard to the long term interests of end users, largely reflects the Commission's views in these reports.⁴¹

In general, the Commission considers that Telstra's Undertaking is broadly consistent with the model prices and therefore, for the reasons outlined in the Commission's model price determination and detailed below, the Commission considers that Telstra's Undertaking is reasonable. In this regard, the Commission accepts Telstra's LCS Undertaking. In coming to this decision, the Commission had regard to a number of issues raised in several submissions provided by interested parties which are detailed in Appendix B.

Whilst accepting the LCS undertaking, the Commission notes that it continues to have concerns, expressed in its model price determination and the draft decision, about the potential for a price squeeze created by the current application of retail minus pricing. This issue is discussed in more detail in Appendix B. Due to these concerns, the Commission will continue to monitor the market, using its new monitoring powers under the augmented accounting separation provisions - specifically those relating to imputation testing - to ensure that margins across bundles are not unduly eroded.

Promoting competition

In its model terms and conditions, the Commission noted that, using Telstra's PIE II model and modified to include the Commission's assumptions, the TSLRIC++ (along with the Commission's estimated retail costs) does exceed 20 cents for 2002-03 financial year. Thus, as noted in its Revised Final Report, access seekers who were as efficient as, or more efficient than, Telstra at the retailing of local calls would not be able to compete with Telstra unless they price local calls below the cost to them of acquiring those calls. In this regard, the Commission considers that the retail-minus approach for determining the LCS access price ensures competitive neutrality between access seekers and Telstra, where the cost of a local call is greater than the retail price.

It is noted that Telstra's remarks that it is essentially loss-leading in relation to local calls, if correct, means that access seekers are effectively in a similar situation. This is also borne out by imputation testing in relation to line rentals and local calls.⁴²

This said, in its model price terms and conditions, the Commission observed that the TSLRIC++ may fall below 20 cents for 2003-04, depending on the estimate of retail costs and average duration assumptions, and is likely to be significantly below 20 cents for 2004-05. Given uncertainties surrounding the PIE II model, however, the Commission remains of the view that the retail-minus approach should continue to be used over the undertaking period. However, as noted in its model price terms and conditions, the Commission considers that there is no apparent reason why a

⁴¹ ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, and ACCC, *Local Carriage Service Pricing Principles and Indicative Prices - Final report (revised)*, April 2002.

⁴² ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, p. 93.

TSLRIC⁴³ approach should not be examined further once a robust cost model is developed and the economic cost (plus retail cost) of a local call falls below 20 cents.

Economically efficient use of, and investment in, a carriage service

Telstra argues in its submission that:

....to promote efficient infrastructure based competition and investment, the LCS price must be set to allow the full recovery of efficiently incurred costs. This will provide incentives for service providers to compete by deploying their own infrastructure if they can do so at a lower cost than Telstra.⁴⁴

In its Revised Final Report, the Commission considered that it was unclear as to whether a pricing approach using an access provider's long-run efficient costs of providing a local call (including a contribution to indirect costs and the access deficit) will create efficient incentives for investment in these circumstances. Importantly, facilities-based competitors still need to compete against Telstra's retail prices. If Telstra is being required to price below TSLRIC++ for local calls by the retail price controls, new investment by either Telstra or its competitors may be discouraged.

However, the Commission noted that, given current price-cost relativities, the retail-minus approach is more likely than a TSLRIC pricing approach to encourage efficient facilities-based competition. In particular, resale entry reduces the risks associated with network investment, and can encourage more efficient use of telecommunications infrastructure by promoting productive efficiency.

Another way of looking at this issue is to note that any underlying distortions to investment result from constraints on retail pricing rather than the LCS retail-minus approach. The latter is aiming to promote more efficient investment outcomes given current constraints and is, if anything, aiming to foster more efficient longer-term outcomes rather than lead to sub-optimal results.

Any-to-any connectivity

The objective of achieving any-to-any connectivity does not appear to be relevant to the consideration of the reasonableness of the price terms and conditions of the LCS Undertaking.

Legitimate business interests of the carrier or carriage service provider concerned and the direct costs of providing access

Telstra claims that a retail-minus approach will disadvantage it in the event that the Commission deducts costs that Telstra does not avoid from the retail price. In particular, Telstra submits that to determine the retail minus retail cost price, avoided costs⁴⁵ should be deducted from the relevant retail starting price, as the '... resulting LCS price will only allow access seekers to compete with Telstra if their cost of retailing is lower than the costs that Telstra actually avoids.'⁴⁶

⁴³ This would also need to consider whether a TSLRIC+ or TSLRIC++ (including the ADC) approach should be used.

⁴⁴ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, July 2003, p. 57.

⁴⁵ These are costs that Telstra actually avoids as a result of selling LCS to access seekers.

⁴⁶ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, July 2003, p. 60.

However, the Commission has previously considered that it is necessary to balance the access provider's interests against the interests of persons who have rights to use the LCS. In particular, the Commission noted that using an estimate of Telstra's average retail costs rather than its marginal retail costs avoided in supplying LCS services to access seekers, ensures that access seekers can compete with Telstra in the retail functions of a supplying a local call, a task made difficult if an access seeker also had to incur Telstra's residual retail costs as well as its own retail costs.⁴⁷

Interests of persons who have rights to use the declared service

The Commission considers that the retail-minus approach ensures that an access seeker will not bear the access provider's retail costs of supplying local call services. This allows the access seeker to compete against the access provider (and other access seekers) on the retail functions of providing a local call. This would not be the case if the only costs deducted from the retail price were those costs that the access provider actually avoids.

Potential price squeeze from retail minus pricing

A number of submissions, such as from Macquarie and Optus, raised concerns that Telstra could engage in anti-competitive behaviour, through the current application of retail minus pricing. It was claimed that this compromises their legitimate business interests. These concerns, Telstra's response to these concerns and the Commission's preliminary views are discussed in more detail in Appendix B.

As noted in its model price terms and conditions for the LCS, the Commission noted the possibility that Telstra could *potentially* price squeeze its competitors by increasing its unbundled local call prices relative to its bundled local call prices without any corresponding increases in the prices of other services in its bundled offerings. It considered revisiting its retail minus approach to determining the LCS price if evidence of a price squeeze, which had a significant competitive impact were to emerge.

In its draft decision, the Commission noted that potential anti-competitive behaviour by Telstra could have a predatory effect, reducing competition in the more dynamic long-distance (STD), international (IDD) and fixed to mobile markets (FTM) – collectively referred to as the 'SIF' market. This has potential to reduce entry and innovation in the SIF market. Further, because local call demand is likely to be more inelastic than SIF demand, it may be economically inefficient to transfer costs from LCS prices to SIF prices.⁴⁸

The Commission notes, however, that, at the present time, the setting of monthly line rentals – which may create most of the potential difficulties – is not a declared service and therefore is not a subject of the undertakings, nor open to separate Commission arbitration. However, Telstra has claimed that an individual regulatory price cap constrains the ability of Telstra to raise line rental charges and that Optus supports this

⁴⁷ ACCC, *Local Carriage Service Pricing Principles and Indicative Price - Final Report (revised)*, April 2002, pp. 19-21.

⁴⁸ This issue is, however, complicated by the retail price controls, to the extent they maintain local call and rental prices at or below cost.

contention⁴⁹. While this is noted (and was noted in the Draft Report⁵⁰), it is not clear to the Commission that this constraint necessarily prevents price squeezing behaviour as the price cap does not impose the same constraint on line rental charges as competition which would force Telstra to charge no more than efficient line rental costs.

The Commission also observes that, because the effect described moves across two markets, it may not necessarily be detected by a traditional imputation test. The Commission considers that these aspects and, in particular, whether access seekers are required to cross-subsidise local calls to a greater extent than Telstra, will be better dealt with in the upcoming review of LCS declaration and associated pricing principles.

It may be, however, that the most effective way to address these difficulties would be to move to a cost-based TSLRIC approach to LCS pricing. This, however, could require a separate inquiry process, which could also consider the need for a service line declaration. In the meantime, as noted above, to the Commission will continue to monitor the market and Telstra's behaviour, which is more appropriate in this circumstance given the short term nature of the Undertaking for this service.⁵¹

Conclusion

Having regard to the reasonableness criteria, the Commission accepts Telstra's undertaking GST exclusive price of 13.61 cents per call in relation to the LCS for the 2004-05 financial reporting period. While the Commission notes that it continues to hold concerns in relation to a potential price squeeze, it is prepared to accept the Undertaking for the LCS given that it will only apply for only six months, which will provide some degree of certainty for access seekers for that short period. The Commission also considers that the more expeditious approach to deal with concerns of a potential price squeeze is to closely monitor the market for such anti-competitive behaviour.

In addition, the Commission notes that it is likely to review the LCS declaration and associated pricing principle in the near future. In this regard, the Commission notes that a separate inquiry process is a more appropriate forum to discuss the LCS declaration, the possible declaration of a wholesale line rental service and related pricing principles as it would ensure a more thorough consideration of the issues relevant to the supply of the LCS and related services. These questions arise due to a number of factors, including the possibility of the TSLRIC++ (plus retail costs) of a local call falling below its retail price. Further, there is a need to examine the estimation of retail costs and emerging trends in the delivery of local calls – including via the use of PSTN O/T services, non-circuit switched (eg, IP) technologies and

⁴⁹ See Telstra submission to the Draft Report, Annexure C, pp. 6-7

⁵⁰ See Draft Report, pp.75—76.

⁵¹ It should be noted that some related issues concerning the regulation of retail charges for line rental services are also being considered in the current price cap review by the Commission. This mechanism may also provide a means of dealing with some aspects of the price squeeze concerns about that have been raised.

capped local calls. Some of these issues are discussed further in the Commission's model price terms and conditions.⁵²

6.2. Non-price terms and conditions

As noted in section 3, the Undertakings almost entirely cover price terms and conditions of access. Therefore, the Commission's assessment of the reasonableness of the Undertakings has focussed on the price terms and conditions of access, as set out in section 6.1. Two key issues have arisen, however, over the scope of the service covered by ULLS undertaking as compared to the declared ULLS and the form of the network modernisation provision.

Since Telstra has withdrawn the November 2003 ULLS undertaking, it is not necessary for the Commission to form a final view on the reasonableness of the non-price terms and conditions. The Commission would however, reaffirm its earlier views on the service and network modernisation issues raised in its October 2004 draft report. In this regard, the Commission noted there is at the very least some uncertainty about the scope of the service covered by undertaking and also in relation to the rights and obligations of access seekers over network modernisation. This uncertainty could affect the reasonableness of these non-price terms and conditions and it would be desirable for Telstra to clarify these aspects appropriately in any future undertaking. Since Telstra does not appear to have addressed these matters in its new December 2004 ULLS undertaking, it is evident these matters have not been resolved.

⁵² ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, pp. 90-101.

Appendix A. Assessment of PSTN O/T prices

Telstra's core service undertakings were lodged with the Commission in November 2003 following publication of the Commission's model price determination in October 2003. Telstra stated that the undertaking prices were consistent with the model prices and should therefore be accepted.⁵³ The Commission continues to believe, for the reasons set out in the previous determination, that the model prices are reasonable. Consequently, to the extent that Telstra's undertakings are consistent with the model prices the undertakings will also be reasonable. The major difficulty in assessing the consistency between Telstra's rates and the model rates has been the appropriate inputs and method used to disaggregate headline rates. This appendix specifies the Commission's approach.

The Commission believes that on the balance of information available to it, the undertaking rates appear consistent with the model prices and ought therefore to be accepted.

A.1. Model prices terms and conditions

The Commission's primary concern in setting model prices was to allow a smooth transition from TSLRIC++ pricing – which included an ADC – to TSLRIC+ pricing – which does not include an ADC. In furtherance of this aim the Commission adopted a concave glide path, beginning at commercially negotiated prices in 2002-03 and ending at an estimated TSLRIC+ of 0.7 cents in 2006-07.⁵⁴ The Commission decided to implement this glide-path through a *headline* rate for PSTN O/T which the Commission defines as the weighted average price paid by access seekers for one minute of use of the PSTN O/T service. Following this logic, the model rates, set out in Table A.1.1 were considered to meet the reasonableness test. Two implications of this approach should be noted. Firstly, it is the *average* price paid by an access seeker that should be decreasing from 2002-03. Secondly, if traffic and call holding times remain unchanged, the price faced by *every* access seeker should be falling from 2002-03.

Table A.1.1. Headline Rates PSTN O/T rates taken from the model price terms and conditions

| | 2003-04 | 2004-05 | 2005-06 |
|--------------------|---------|---------|---------|
| Headline Rate/ MOU | 1.25 | 1.15 | 1.00 |

The Commission notes that the model price terms and conditions determination also outlined disaggregated PSTN rates, which are similar to the rates in Telstra's undertakings, although not the same. These disaggregated rates were calculated using Telstra's call duration and traffic distribution estimates as taken from the PIE II model as that was the only information available to the Commission at the time. Further, the

⁵³ Telstra, *Telstra's Submission in Support of its Undertakings Dated 14 November 2003*, March 2004.

⁵⁴ ACCC, *Final Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, p. 63.

Commission’s draft determination did not specify such rates and they were only included in the final determination at the request of access seekers. The Commission noted that the rates:

“...are only indicative rates and only approximate the appropriate disaggregation of Commission’s indicative headline rates. They should not be taken as definitive.”⁵⁵

The Commission’s final determination on model price terms and conditions also contains its assessment of the model prices against the regulatory criteria which are relevant both to setting model price terms and conditions, and to assessing undertakings.

A.2. Telstra’s proposed disaggregated rate table

In contrast, Telstra’s undertakings provided only a disaggregated rate table. This table specifies a flagfall and minute of use charge for each of the ICCA bands.⁵⁶ The Commission understands that these were based on, among other things, PSTN call duration and traffic distribution estimates as specified in Telstra’s PIE II model. These disaggregated rates are detailed in Table A.2.1 below.

Table A.2.1. PSTN disaggregated rates as specified in Telstra’s November 2003 undertakings

| | 2003-04 | | 2004-05 | | 2005-06 | |
|------------|----------|--------|----------|--------|----------|--------|
| | Flagfall | EMOU | Flagfall | EMOU | Flagfall | EMOU |
| CBD | 1.1132 | 0.4946 | 0.9891 | 0.4484 | 0.6981 | 0.3716 |
| Metro | 1.1052 | 0.6356 | 0.9827 | 0.5863 | 0.6917 | 0.5095 |
| Provincial | 1.2187 | 0.8472 | 1.0958 | 0.7922 | 0.8048 | 0.7154 |
| Rural | 2.5129 | 4.1244 | 2.3405 | 3.8610 | 2.0495 | 3.7842 |

To generate the price of an average call – the headline rate – from Telstra’s disaggregated rate table requires that assumptions be made about the call holding time (CHT) and geographic distribution of calls. The shorter the CHT, the higher will the per-minute cost of an average call. Equally, the more traffic in the high cost regions – rural and provincial – the higher the headline rate. As emphasised above, it is the headline rate that is of primary concern to the Commission during the transition to TSLRIC+ pricing.

Telstra use a CHT of [c-i-c] minutes and geographic distributions as given in Table A.2.2. These are found in PIE II. It is worth noting that while the CHT is an assumption that is a variable in PIE II, traffic distribution is calculated from traffic data reports generated by the PIE II model. This output is, however, simply an aggregation of Telstra’s highly disaggregated call and minute inputs.⁵⁷

⁵⁵ ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, Section 9.

⁵⁶ That is CBD, Metropolitan, Provincial and Rural.

⁵⁷ The highly disaggregated nature of traffic inputs in PIE II makes it very difficult to alter these traffic assumptions.

Table A.2.2. Percentages of per-minute traffic in CCA regions coming from PIE II.

| | 2003-04 | 2004-05 | 2005-06 |
|------------|---------|---------|---------|
| CBD | [c-i-c] | [c-i-c] | N/A |
| METRO | [c-i-c] | [c-i-c] | N/A |
| PROVINCIAL | [c-i-c] | [c-i-c] | N/A |
| RURAL | [c-i-c] | [c-i-c] | N/A |

Combining Telstra's proposed undertaking rates with the above CHT and traffic distribution assumptions results in headline rates that conform to the Commission's model price terms and conditions.

The above indicates that in assessing the reasonableness of Telstra's proposed disaggregated rates, it is imperative to assess the appropriateness of the CHT and traffic distribution assumptions. Together with addressing the methodology for arriving at disaggregated rates, the remainder of this appendix deals with this assessment.

A.3. Consistency of Undertakings with model price terms and conditions

A.3.1. Reasonableness of assumptions for disaggregation

As noted above, it is the Commission's primary concern in assessing this undertaking that prices are following a decreasing path that will allow for TSLRIC+ pricing from 2006-07. In responding to the Commission's preliminary view paper,⁵⁸ Optus submitted that the effective PSTN O/T headline rates it would face if the undertakings were accepted would be much higher than those in the model price terms and conditions determination. A key reason for this is that the headline rate paid by Optus is based on the disaggregated rates as determined by its actual call duration and traffic distributions. This traffic data differs from that used by the Telstra in establishing its disaggregated rate table. In this regard, Optus raised concerns in relation to the call duration and traffic distribution assumptions that were in the PIE II model.

As any undertakings would cover supply of PSTN O/T services to all access seekers, and not only Optus, the Commission believes that appropriate CHT and traffic distribution figures used in disaggregating headline rates should be averages over all access seekers, and not specific to any access seeker. If Optus' (or any other individual access seeker's) traffic profile were different to the average traffic profile for all access seekers, so that its headline rates were higher than average headline rates in the model price terms and conditions determination, the Commission would not consider this to be an issue.

However, the Commission believes it is appropriate that access seekers, *on average*, face headline rates which are as close as possible to those set out in its model price

⁵⁸ ACCC, *Assessment of Telstra's Core Services Undertakings – Preliminary View*, December 2003.

determinations.⁵⁹ Therefore, CHT and traffic distribution data used in disaggregating headline rates must be based on appropriate estimates of traffic data for the period of the undertakings.

Since releasing its model price terms and conditions determination and the preliminary view paper the Commission has sought historical data on PSTN call durations and traffic distributions. This information has been supplied by both Telstra, following a number of s.152BT requests, and access seekers. The CHT and Traffic data discussed here, which the Commission believes to be the most appropriate, was received from Telstra on 6 September 2004.

Call Holding Times

Telstra's methodology for calculating the CHT figure for the undertaking was provided in its preliminary response to the third BT request.⁶⁰ The figure was calculated in October 2002 at the time Telstra was constructing the PIE II model. Telstra claims that because CHT would follow a random walk, the best estimate of CHT was that available in October 2002. To determine the number Telstra took a sample of Optus, AAPT, Primus, PowerTel, RSL and World Exchange calls. It claims that this is not a biased sample. Telstra states that it would be inappropriate to alter this number on the basis of more up to date data as that would require altering and updating the PIE II model and would change the numbers coming out of it.

The Commission has two main difficulties with this approach. First, it is clear that the sample was biased. It overstates greatly the number that is provided by the historical data, and it is not at all clear why other calls were not included.⁶¹ Second, the headline rates in the model price terms and conditions are *not* based on the PIE II model.⁶² The Commission therefore does not accept Telstra's method. The Commission believes that it is most appropriate to use actual figures from 2002-03. This is the best information that was available at the time the undertaking was lodged and follows Telstra's own argument that CHT would follow a random walk.

The Commission has applied this approach and using information provided by Telstra the Commission has found that the average access seeker's CHT for 2002-03 was [c-i-c] minutes. As noted above, the information used to make this assessment was not provided to the Commission until 6 September.

⁵⁹ It is recognised, however, that access seekers will typically acquire services from Telstra under bilateral agreements which may differ to some extent from any undertaking rates, even on average, depending on the specific scope and nature of commercial arrangements between them.

⁶⁰ Telstra, *Preliminary Response to 152Bt Request Dated 27 May 2004*, June 2004.

⁶¹ Telstra questioned this statement in its submission to the draft report stating that the estimate was aimed at deriving *future* CHT and it therefore does not need to be consistent with historical data. The Commission is of the view that the CHT estimate for 2003-2004 was so far above the actual data for that time that it must be biased. Further, as the estimate was simply based on an extrapolation from an historic sample it should show some relationship with that sample. On this basis the Commission concludes that the estimate, based as it was, only on terminating traffic and originating traffic for FTM calls, was biased. For Telstra's discussion see Telstra, *Submission Relating to PSTN OTA and LCS in Response to the Draft Decision on Telstra's Undertakings for PSTN, ULLS and LCS dated October 2004*, 29 November 2004, p. 5.

⁶² The issue of Telstra relying on the PIE II Model will be discussed further below.

Traffic distribution

In preparing the averages in its undertaking tables, Telstra makes use of a traffic distribution, set out in Table A.3.1, which comes from the PIE II model.

Table A.3.1. Percentages of per minute traffic in CCA regions coming from PIE II

| | 2003-04 | 2004-05 | 2005-06 |
|------------|---------|---------|---------|
| CBD | [c-i-c] | [c-i-c] | N/A |
| METRO | [c-i-c] | [c-i-c] | N/A |
| PROVINCIAL | [c-i-c] | [c-i-c] | N/A |
| RURAL | [c-i-c] | [c-i-c] | N/A |

As noted above, the Commission believes that the best information to use is 2002-03 actual data (supplied by Telstra and access seekers). This data is show in Table A.3.2.

Table A.3.2. Percentages of per-minute traffic provided by Telstra

| | 2002-03 |
|------------|---------|
| CBD | [c-i-c] |
| METRO | [c-i-c] |
| PROVINCIAL | [c-i-c] |
| RURAL | [c-i-c] |

Applying this traffic distribution and the lower call holding time discussed previously to Telstra's proposed disaggregated rates yields headline rates as in Table A.3.3 below.

Table A.3.3. Headline rates using a call-holding time of [c-i-c] minutes, traffic distributions in Table A.3.2 and Telstra's disaggregated rates

| | 2003-04 | 2004-05 | 2006/2006 |
|---------------|---------|---------|-----------|
| Headline Rate | 1.2661 | 1.1630 | 1.0045 |

These prices are, in the Commission's view, sufficiently close to the model prices as to be considered reasonable.⁶³ The draft report questioned whether it was appropriate to include CLCs in the traffic distribution and provided some discussion of the issue. As noted in section 6.1.1; given the responses of industry, the Commission accepts that it is appropriate to include CLCs in the traffic data.⁶⁴

⁶³ See also discussion in section 0 above.

⁶⁴ For a discussion of the issue see ACCC, *Assessment of Telstra's Undertakings for PSTN, ULLS and LCS – Draft Decision* October 2004, pp. 53-54.

A.3.2. Appropriate method of disaggregation of model terms and conditions headline rates

Given the importance of disaggregation methods in the discussion above, the Commission believes that it is appropriate to lay out its preferred method of moving from a headline rate to a disaggregated rate table.

Telstra's approach to disaggregating the headline rate

The Commission believes Telstra's method for calculating the disaggregate tables provides cause for concern. The method set out in Telstra's response to the Commission's s153BT requests involves the following steps:

PIE II is used to calculate the network conveyance costs and ADC⁶⁵ using [c-i-c] as the call-holding time.

These costs are allocated by Telstra as follows:

- for conveyance costs [c-i-c] per cent to flag fall and [c-i-c] per cent to MOU
- for ADC (or UPCC) [c-i-c] per cent to flag fall and [c-i-c] per cent to MOU
- wholesaling costs are added to conveyance costs to get total conveyance costs
- ADC is scaled down (MOU and flag fall by the same portion) to generate the Headline rate required.

Commission's position

Telstra's approach relies heavily on PIE II. The model is used to estimate the traffic distribution, to generate the costs and is used as the relevant date for making *ex ante* estimates. However, the Commission has already noted it has concerns over the model's underlying architecture, assumptions and methodologies⁶⁶ (these are further explored in Appendix C). Therefore, the Commission believes Telstra's approach to disaggregating headline rates is inappropriate.

It is possible to use the actual traffic data for 2002-03 and arrive at disaggregated rates that will amount to the indicative headline rates established by the Commission in its model price terms and conditions determination. This approach is the Commission's preferred option for taking into account the revised PSTN average call duration and traffic distribution estimates. The approach assumes that:

- headline rates for the 2003-04, 2004-05 and 2005-06 must be 1.25, 1.15 and 1.00 ¢/minute;
- the CHT over the years of the undertakings is estimated to be as actual PSTN O/T CHT in 2002-03;
- the traffic distribution for the years of the undertakings is estimated to be as actual PSTN O/T traffic distribution in 2002-03;

⁶⁵ Telstra changed its terminology for the ADC, calling it the Unrecovered PSTN Can Cost Contribution or ("UPCC"). The Commission argues such a change in terminology implies CAN costs are not recovered which is contrary to Commission's beliefs. Therefore, ADC terminology should not be changed in any Commission papers.

⁶⁶ ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, Section 6.1.4

- the break-down of the headline rate between flagfall and per minute charge is 25:75 (as in Telstra's retail pricing); and
- the ratios between charges in each geographic area are as those in Telstra's proposed charges (e.g. for 2003-04, Rural flagfall is 2.2574 times the CBD flagfall.)

The above data provides enough information for disaggregated rates to be derived with the use of mathematical equations. The Commission notes that Telstra's tables do not strictly preserve the 25:75 ratio of flagfall to EMOU that is stated above. Analysis, however, shows that given the appropriate CHT and traffic distribution the ratios are 28:72, 29:74 and 24:76 respectively for the three years of the undertakings. The Commission does not believe that these ratios depart significantly from the Commission's preferred approach. Telstra criticised the Commission's approach in its submission to the draft report but raised not new issues which have changed the Commission's view.

Appendix B. Assessment of LCS prices

B.1. Model prices terms and conditions

The model price terms for the LCS are shown in Table B.1.1. The Commission determined prices for the LCS for 2002-03, carried over to 2003-04 and 2004-05 financial years. This is on the basis of a possible review of the LCS declaration and associated pricing principles in subsequent financial years. Given that the LCS prices were determined late in the 2002-03 financial year, it is considered that these should carry over for 2003-04 and 2004-05 financial years without adjustment.

As detailed in Table C1, the retail minus approach allows retail costs to be subtracted from either the line rental (option 1) or call price (option 2). These options recognise that it has been the practice of access seekers to take over responsibility for billing retail customers for line rental. The Commission has previously considered that access seekers are entitled to receive a discount off this retail basic access price, preferably from the retail basic access price or if this is not done, as a further per call discount from the local call retail price.

Table B.1.1. Model LCS call prices and annual line rentals 2002-03, 2003-04 and 2004-05*

| | Residential | | Business | |
|---------------------|-------------------------|----------------------------|-------------------------|----------------------------|
| | Discount on line rental | Discount on per call price | Discount on line rental | Discount on per call price |
| Monthly line rental | \$17.22 | \$21.36 | \$27.63 | \$31.77 |
| Per call | \$0.1823 | \$0.1361 | \$0.1823 | \$0.1361 |

* All prices exclude GST.

Option 1: Discount on line rental

$$p_m^a = p_m^{ub} - c_m^r$$

$$p_c^a = p_c^{ub} - c_c^r$$

Option 2: Discount on per call price

$$p_m^a = p_m^{ub}$$

$$p_c^a = p_c^{ub} - c_c^r - \frac{c_m^r}{ave}$$

Where

p_m^a is the access price per month;

p_m^{ub} is the unbundled price of calling line part per month;

c_m^r is the retail costs associated with monthly line rental;

p_c^a is the access price per call;

p_c^{ub} is the unbundled per call price of calling line part;

c_c^r is the retail costs per call; and

ave is the average number of calls made per month

As noted in model price terms and conditions, to some extent, the Commission has taken a cautious approach to determining its LCS prices. This reflects its view that the LCS should serve as a transitory access service prior to the use of lower-level declared services such as PSTN O/T, the ULLS and facilities based competition.

The Commission considered that the following are key principles for determining an appropriate LCS access prices, as detailed in its model price terms and conditions and revised final report in relation to this service:

- the use of a retail-minus methodology;
- the estimation and use of Telstra's average retail costs rather than its retail costs actually avoided;
- the subtraction of average retail costs from unbundled retail local call prices that are associated with particular line rental offerings;
- that where Telstra has been required to accommodate the GST within the local call price cap (that is, for calls priced 20 cents excluding GST or 22 cents including GST) the cost to Telstra of this is shared by access seekers; and
- to the extent that no retail discount on line rental is forthcoming, a further retail discount on the local call price (equal to line related retail costs expressed on a per call basis) should be applied as an alternative.

Some of these principles are expanded upon further in the Commission model price terms and conditions.⁶⁷

B.2. Key issues in relation to Telstra's undertakings for the LCS

This section outlines some of the issues raised by parties in relation to Telstra's undertakings for the LCS, as well as some of the Commission's consideration of these issues. The following issues are discussed in this section:

- potential anti-competitive behaviour;
- the undertaking as a lower limit on prices;
- TSLRIC versus retail-minus approach;
- retail costs; and
- PSTN O/T local calls.

B.2.1. Potential anti-competitive behaviour

Optus argues that the retail minus pricing approach allows Telstra to anti-competitively leverage market power from the LCS market into the SIF market. It

⁶⁷ ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, pp. 94-95.

believes that Telstra's behaviour is in breach of the competition rule in Part XIB and that the LCS access pricing principles need to be reassessed.⁶⁸

The Commission is aware that two factors compound the potential for Telstra to engage in price squeezing behaviour, altering its LCS prices to reduce competition in the SIF market.

Firstly, as line rental is not a declared service, Telstra has not committed to a monthly line access price in its undertaking. Optus has suggested that Telstra charge access seekers the full – unbundled – retail line rental. This is despite the fact that line rentals are clearly an important competitive variable in the local call market.⁶⁹ Further, because the unbundled pricing plan is not competitively priced, consumers will prefer to take either a bundle from Telstra or another access seeker. In particular, Optus argues that Telstra is able to tax consumers who decided to stay with Telstra for line rental and local calls, but preselect SIF services from another carrier. Access seekers would, therefore, have to compensate consumers for this loss of utility in the LCS market by lowering prices in the SIF market. However, the Commission notes that most consumers are unlikely to pursue this option but would rather purchase a bundled package from either Telstra or another service provider. As submitted by Optus:

Telstra is able to use its market power to set a high price for unbundled LCS from which the wholesale price for LCS is calculated, and a lower price for bundled LCS. This price structure provides a strong incentive for customers to take a bundle of LCS and other services from Telstra. If customers do not take a bundled service from Telstra they will pay a higher price for LCS.⁷⁰

Secondly, Telstra's undertakings only specify one of the options from the model prices. Specifically, they state that the price of LCS will be \$0.1361 per call. This means that retail costs are subtracted only from the call price and not from the line rental. Access seekers therefore only have access to one pricing plan from Telstra, and this is not tied to a specific line rental.

In this regard, the Commission notes that if Telstra increases the line-rental of the calling-line part price relative to its bundled offerings, it is able to place a price squeeze on access seekers in the local call market while still meeting the retail price caps.⁷¹ The unbundled price is, therefore, not constrained by competition - it is only constrained by the retail price controls.⁷²

⁶⁸ Optus, *Optus Submission to the Australian Competition and Consumer Commission on LCS Undertaking Price is Anticompetitive*, March 2004.

⁶⁹ It is the variation of line rentals that gives a competitor in this market the power to provide non linear tariffs.

⁷⁰ Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's bundling of services*, July 2004, p.5.

⁷¹ It is noted that because Telstra knows that consumers will not choose an unbundled option, it has the incentive to push up the home-line part price – and increase line-rental prices.

⁷² Retail price controls state that local call prices cannot be above 22 cents including GST. In addition, line rental and local call prices are subject to average price caps where the revenue weighted price of local calls, trunk calls and international calls is currently capped at CPI-4%, and the revenue weighted average price of line rentals cannot rise by more than CPI+4%.

Further, Telstra is able to adjust the relative prices of its bundled calling plans to make it more difficult for access seekers to compete in specific sections of the local market. Optus has indicated, and the Commission agrees⁷³ that because local calls are seen as a ‘communicable product’ (meaning that consumers generally consider first the prices of local calls and then look at SIF prices in a bundle), most access seekers will tend to meet Telstra’s local call prices.⁷⁴ In this regard, access seekers are likely to lower its LCS prices to compete with Telstra and increase SIF prices in order to cross subsidise and recover costs, or alternatively, leave them constant and decrease profits. This, in turn, means that local call losses are passed on to the SIF market and will tend to inflate prices and reduce competition in that market.

Thus, Optus submits that, ‘Telstra has the incentive to leverage and take advantage of its market power in LCS in adjacent markets (like for LD services) because its market power in LCS is constrained by the retail price controls.’⁷⁵

The Commission is concerned that Telstra’s potential anti-competitive behaviour will have a predatory effect, reducing the size and competition in the more competitive SIF market relative to the LCS market which is dominated by Telstra’s presence and is considerably less dynamic, with smaller or negative margins. This has potential to reduce entry and innovation in the SIF market. Further, because local call demand is likely to be more inelastic than SIF demand, it may be economically inefficient to transfer costs from LCS to SIF.⁷⁶

The Commission notes, however, that at the present time monthly line rental – which creates most of the difficulties – is not a declared service and therefore is not a subject of the undertakings, nor open to separate Commission arbitration. The Commission also observes that because the effect described moves across two markets it will not be detected by a traditional imputation test.

Specifically, Telstra would only cause a price squeeze in the local call market if it will increase Telstra revenue in the SIF market – by increasing prices.⁷⁷ This will simultaneously lower access seeker profits in the SIF market as they will face higher costs. The imputation test will impute to Telstra-retail the losses in the local call market, but will continue to impute the increased SIF revenue - which is not actually earned by access seekers – thus overstating the profitability of the services.⁷⁸

⁷³ *ACCC v Australian Safeway Stores Pty LTD* [2003] FAFCR 149, [10].

⁷⁴ They will not necessarily match all of Telstra’s plans in-fact, anecdotal evidence suggests that they only offer two or three plans but that they are similar to Telstra’s.

⁷⁵ Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra’s bundling of services*, July 2004, p. 6.

⁷⁶ This issue is, however, complicated by the retail price controls, to the extent they maintain local call and rental prices at or below cost.

⁷⁷ This would be the end result of any reasonable model of competitive conduct in the SIF market.

⁷⁸ Further the problem will not be constrained to loss making in the market, but rather a reduction in the incentives to enter the market. An imputation test is at best a rule of thumb to detect a clear predatory effect. It is likely that the pricing discussed here would lead to a reduction in profits but not to actual losses. However, considering how wide the market is – all fixed line services – it seems unlikely that breaking even is sufficient to drive the competitive process – however see below regarding the extent of current overall margins.

Further, the imputation analysis is highly dependent on the traffic distributions of the carriers. As Telstra is able to raise access seekers' losses for specific sections of the local call market – as noted above – it is able to target carriers with specific call distributions without this being revealed in an imputation test. Finally, as n/e/r/a has pointed out, Telstra will pass an imputation test even if it extracts all access seeker rents in the SIF market. The Commission considers that this is of particular concern as it is potential rents that draw new entrants and innovation into the market.

The limitations of a standard imputation test means it would be difficult and time consuming for the Commission to pursue this possible anti-competitive behaviour under Part XIB.⁷⁹ Finally, this matter is complicated even further because retail price controls in local call markets mean that Telstra claims it is making a loss.

In this regard, the Commission is of the view that the most effective way to address these difficulties may be to move to a cost based – TSLRIC – approach to LCS pricing.⁸⁰ This would require a separate inquiry process and the issue of local call costs would have to be addressed directly. The advantage of this approach would be combining the pricing/LCS declaration inquiry with a broader declaration process, which may also consider the possible declaration of the line rental.

The alternate and more immediate approach is to reconsider the application of the retail-minus methodology. However, the Commission considers, given the effective short term nature of the undertakings – six months – it is not clear that this issue warrants a change to the retail minus approach. In particular, the Commission considers that there is considerable merit in providing a clear indication of the appropriate prices by accepting the Undertaking. The Commission also considers that the concerns raised by Optus re-enforce the need for a reassessment of the LCS pricing principles, but for the present time, given the time consuming nature of pursuing this potential concerns, the Commission will closely monitor such anti-competitive behaviour using its existing augmented accounting separation mechanisms.

Issues raised in the corporate market

Macquarie Corporate Telecommunications have raised particular concerns about Telstra's pricing in corporate markets. In particular, Macquarie indicates that because business customers are predominantly located in built-up areas and make shorter calls, the actual cost to Telstra of providing a local call and line rental is below that in other areas, and significantly below the undertaking prices for LCS. This enables Telstra to price well below access seekers, and yet still have corporate markets make a substantial contribution to common costs. In this regard, Macquarie submits that the actions of Telstra amount to a price squeeze or misuse of market power in that market. In particular, Macquarie argues that:

⁷⁹ Given the time and resources this could be achieved, including the design of a more appropriate cost-based predation test, but again, considering the short duration of the undertaking it is not clear that this would be efficient at this time.

⁸⁰ Although it remains unclear whether this would remove the difficulties associated with line rental being undeclared.

This results in a price squeeze on Telstra's retail competitors in the corporate market and enables Telstra to leverage its market power at the wholesale level and to stifle effective competition in this market.⁸¹

Further, Macquarie believes that, where access to Telstra's network is priced clearly above costs, the single LCS price promotes inefficient bypass in corporate markets. This issue is further compounded because, in corporate markets, the majority of competition takes place across bundles which must include local calls. Macquarie, therefore, argues that Telstra should provide a disaggregated price that allows for a closer to cost-based price in the corporate market.

The Commission considers that Macquarie's argument is similar to the previous discussion. In particular, Macquarie's argument arises because the access price is based on Telstra's unbundled price and the unbundled price has no clear relationship to either costs, or Telstra's bundled prices. Issues, however, arise if the LCS is viewed as a disaggregated service. Telstra, for instance, suggests that providing LCS on a cost-basis would lead to a price of 93.6 cents for a 12 minute local call in rural areas.⁸² While the Commission has not attempted to reproduce this figure, it does highlight that the corporate market revenue may be used to subsidise other services, such as rural telephone services.

The Commission considers, however, that Telstra as well as other competitors should have the flexibility to cross-subsidise and offer different pricing plans to consumers. To this extent, there may be some trade off between the interests of different groups. The Commission further notes that there may be other options available to access seekers targeting the corporate market. Specifically, it may be possible to make use of the local PSTN O/T service, the ULLS or the domestic PSTN O/T service to supply local calls.⁸³ To the extent that these options are technically feasible, an access seeker will at least be able to push for a lower LCS price from Telstra, and provide an alternative to complete bypass. However, the Commission is also aware that while these services may be reasonably available for corporate providers, they are not available in more provincial and rural areas. To the extent that a disaggregation of LCS prices raises provincial and rural prices, there is no other effective method of competition in these areas.

In addressing this issue, the Commission considers that, similar to the discussion regarding Optus' arguments, it would be preferable to address this matter in the context of a review of the LCS declaration and associated pricing principles.

B.2.2. TSLRIC versus retail-minus approach

In its submissions, Telstra has repeatedly indicated that it considers that the TSRLIC++ approach should be used to determine the LCS price. It has noted that the retail-minus methodology adopted by the Commission for determining the price of the LCS is inconsistent both with full cost recovery and competitive neutrality, which has

⁸¹ Macquarie Corporate Telecommunications, *Submission to ACCC on Telstra's Access Undertaking – PSTN OA, ULLS, and LCS services*, 23 March 2004, p. 5.

⁸² Telstra, *Submission on the Draft Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, July 2003, p. 41.

⁸³ Local Call Override.

implications in terms of the incentives for efficient competition and investment. In particular, Telstra submits that:

..the Commission's approach places Telstra in a position where it bears costs that access seekers can avoid. Recovery of these costs, in turn, requires Telstra to mark up for services which it supplies in competition with access seekers, in a situation where those access seekers do not require a similar mark up. Hence, access seekers can compete with Telstra even if they are less efficient and will be encouraged to continue using LCS at artificially low prices, even if they could provide the service more efficiently by deploying their own infrastructure.⁸⁴

However, the Commission considers that if, as claimed by Telstra, its local call retail price is below the forward-looking costs of supplying those calls (including indirect costs and an access deficit contribution), a TSLRIC++ methodology would lead to a price for the LCS above that calculated using a retail-minus methodology. In particular, in its model terms and conditions, the Commission noted that, using Telstra's PIE II model and modified to include the Commission's assumptions, the TSLRIC++ (along with the Commission's estimated retail costs) does exceed 20 cents for 2002-03 financial year.

This said, in its model price terms and conditions, the Commission observed that the TSLRIC++ may fall below 20 cents for 2003-04, depending on the estimate of retail costs, and is likely to be significantly below 20 cents for 2004-05. In addition, the Commission notes that several access seekers have suggested that the efficient costs of providing the LCS (proxied by TSLRIC+) are below the undertaking prices. Specifically, Optus claims that adjusting PIE II to the ACCC's assumptions set out in the model price determination leads to a TSLRIC price of 13.26 cents in 2003-04.⁸⁵ Further, AAPT suggests that the CHT assumed by Telstra in the PIE II model is too high and that a more reasonable call holding time would lead to a TSLRIC of 7.7 cents.⁸⁶ The Commission has not attempted to reproduce these figures but notes that a move to TSLRIC pricing of the LCS involves a more complicated decision regarding the aggregation level and cost inputs that are appropriate. Specifically, in relation to AAPT's suggestion, the Commission is aware that the assumed relationship between minutes and calls in the PIE II model is difficult to justify, but also notes that *ad hoc* changes to PIE II do not provide a reasonable basis for estimating efficient costs. Further, AAPT has not documented the method by which it arrives at its figure.

However, given the uncertainties surrounding the PIE II model and the TSLRIC pricing more generally, the Commission remains of the view that the retail-minus approach should continue to be used over the undertaking period. However, as noted in its model price terms and conditions, the Commission considers that there is no apparent reason why a TSLRIC approach should not be examined further once a robust cost model is developed and the TSLRIC++ (plus retail cost) of a local call falls below 20 cents. This development does, however, raise the issue of whether it

⁸⁴ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, July 2003, p. 59.

⁸⁵ Optus, *Optus Submission to the Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*. March 2004, p. 35.

⁸⁶ AAPT, *Telstra's Undertakings for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service: Submission to the ACCC by AAPT Limited*, August 2003, p. 60.

would be necessary to retain the LCS as a declared access service – an issue considered in the context of the review of the service.

B.2.3. The undertakings as a lower limit on prices

Several access seekers have expressed concern that the undertaking prices form a lower bound on LCS prices, while the model prices were intended to be an upper bound.⁸⁷ In particular, it has been argued that the single price offered in the Undertakings will reduce the scope for commercial negotiations and discounting.

The Commission notes that the model prices were envisaged as guidelines for negotiation. In particular, Telstra's proposed undertaking price sets a benchmark for the average customer, such that the Commission would expect Telstra to negotiate discounted prices in areas where its retail prices differ substantially from the ones used as a base for the model prices.

B.2.4. Retail costs

The Commission has received several submissions questioning the calculation of retail costs which form the basis of the retail minus methodology. These comments come both from access seekers which believe that retail costs are higher than stated, while Telstra considers that in determining the retail minus retail cost price, avoided costs⁸⁸ should be deducted from the relevant retail starting price, as the '... resulting LCS price will only allow access seekers to compete with Telstra if their cost of retailing is lower than the costs that Telstra actually avoids.'⁸⁹

Optus has submitted that Telstra is able to manipulate its RAF entries to generate a lower level of retail costs. The Commission believes that the issue was dealt with comprehensively at the time of the model price determination and reiterates that it believes that efficient retail costs are as they were determined at that time.

B.2.5. PSTN O/T local call

In its response to the Draft Determination, Telstra queried the proper pricing principle that should be applied to what are ostensibly PSTN O/T services, when they are used by access seekers to provide local calls in certain circumstances.⁹⁰ Telstra submitted that the use of these services by access seekers is an issue relevant to model LCS prices and noted that it is becoming an increasingly important. In essence, Telstra proposed that such override calls should be priced on a per call basis consistent with that for LCS.

Although in its submission to the Draft Determination, Telstra named this service local call override ('LCO'), the Commission considers it is more appropriately named

⁸⁷ Macquarie Corporate Telecommunications, *Submission on the Draft Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, July 2003, p. 6; and Gilbert and Tobin (for the Competitive Carriers Coalition), *Telstra, Undertaking for PSTN Originating and Terminating Access, ULLS and LCS Services Dated January 2003*, 2004, p. 7.

⁸⁸ These are costs that Telstra actually avoids as a result of selling LCS to access seekers.

⁸⁹ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, July 2003, p. 60.

⁹⁰ Telstra, *Submission on the Draft Determination for Model Price terms and conditions of the PSTN, ULLS and LCS Services*, pp. 33-43.

PSTN O/T local call or PLC. At that time, the Commission did not form any final view in relation to this issue in its assessment of the model price terms and conditions for core services given that industry submissions did not initially address this matter.

The Commission is of the view that it would be more appropriate for the consideration of the pricing of the PLC to be undertaken in the context of the review of the LCS. In particular, the Commission notes that given that the review will reconsider the pricing approach to be used for the LCS; this could have an effect on the supply and pricing of the PLC. In the meantime, the Commission also considers that Telstra is able to provide further undertakings for Commission consideration in respect of this matter should it wish to do so. In the absence of any such agreed undertakings, any future disputes over the supply of the domestic PSTN originating access service in connection with PLC are capable of being determined in arbitration.

Appendix C. Modelling issues

C.1. Appropriateness of the PIE II model

C.1.1. Commission's draft view

The PIE II model was provided to the Commission in 2003 to help justify Telstra's January 2003 Undertakings. Telstra noted at that time that PIE II – when populated with Telstra's preferred assumptions – estimates costs well above access prices in place at the time.⁹¹

The appropriate assumptions for modelling the TSLRIC of the PSTN are discussed in the various sections of this Appendix. The purpose of this section is to discuss the appropriateness of PIE II itself and the minimum criteria a model of this sort would need to meet for future Commission use. In general, the Commission does not believe that PIE II meets these conditions⁹²

Telstra submitted that the PIE II model optimises its PSTN network, based on actual customer locations rather than broad averages of cable lengths, and from which efficient costs can be calculated. It also contended that the PIE II model is superior to any other model used in Australia for estimating efficient long run (TSLRIC) costs.⁹³

Telstra performed a trend analysis on the PIE II model costs for the previous two years to estimate costs for 2005-06.

Telstra submitted that its PIE II model is a TELRIC rather than a TSLRIC model and that the n/e/r/a model used by the Commission to assess Telstra's earlier PSTN undertakings in 2000 was also a TELRIC model.⁹⁴

As distinct from a 'scorched earth' model, Telstra characterised the PIE II model as a 'scorched node' model in which local access switches are not optimised, but rather fixed in number and location; and the equipment deployed at these switches is optimised. However, it claimed the PIE II model was very close to a scorched earth model as remote switches are optimised in the model. Moreover, Telstra claimed it had, over time, rationalised its network and reduced the number of switches, implying that the inclusion of existing switches in its PIE II model was, to some extent, optimising the PSTN network.⁹⁵ In this sense, the PIE II model was adopting a

⁹¹ Telstra, *Telstra's Submission in Support of its Undertakings dated 9 January 2003*, January 2003, p. 4.

⁹² The Commission considers that the feasibility of a revised model, developed with broad industry input, should be looked at in the future. Any future model, however, may also need to take account of current and emerging developments in next-generation networks, such as the move away from circuit-switch based network operation and control. The need for any such model will therefore also depend on the scope and nature of regulation of such networks.

⁹³ Telstra, *Telstra's Submission in Support of its Undertakings dated 9 January 2003*, January 2003, p. 3.

⁹⁴ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, p. 28.

⁹⁵ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, pp. 28-29.

scorching-optimisation approach for remote switches that was quite similar to the Commission's n/e/r/a model.

In response Optus submitted that the PIE II model is not a pure scorched node model and to the extent critical features are not fully optimised, PIE II calculates the current historic network costs rather than TSLRIC costs.⁹⁶ Further, given the complexity of the model, Optus contended that the PIE II model should be subject to independent auditing and scrutiny to assess the internal integrity of the model as well as the efficacy of various inputs.⁹⁷ Finally, n/e/r/a, on behalf of Optus separately undertook a detailed examination of certain aspects the PIE II model and concluded that the PIE II model over estimated the efficient cost of the PSTN.

Reasonable requirements for modelling

Any model is, by definition, an abstraction from reality. There is a trade-off between complexity and potential accuracy on the one hand and cost, malleability and transparency on the other. For a model to be useful it needs to produce estimates which the Commission believes are reasonable under the statutory criteria. The Commission would therefore need to be convinced that the model produces a reasonable estimate of TSLRIC+ and, given that that any estimate is – by definition – an approximation, that modelling assumptions represent a balancing of the interests of access seekers and the access provider and represent some form of consensus on both model parameters and inputs.⁹⁸

Given these requirements a model must be sufficiently transparent that the Commission and access seekers could reasonably assess the contents and assumptions in the model, make appropriate adjustments and analyse the impact of different changes in inputs and architecture. In this regard the Commission notes that PIE II is considerably more complex than other models used by the Commission. As Telstra constructed the model, and wishes to use it so support higher prices, it is incumbent on Telstra to make the model sufficiently transparent to enable both the Commission and access seekers to make a well informed decision about the operation and content of the model. It is open to Telstra in this regard to either produce a simpler model or provide sufficient documentation and justification that other parties are able to inform themselves regarding the model. The Commission does not believe that Telstra has discharged this onus.

In coming to this conclusion the Commission is particularly concerned by the following factors:

Firstly, Telstra required all analysts using the model to sign an agreement stating that they would not 'manipulate' the model. This proscription, of itself, precludes the Commission's acceptance of PIE II. To see why, suppose there were a difficulty with PIE II model architecture. In such an event, access seekers would not be able to test

⁹⁶ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, pp. 40-41

⁹⁷ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 41.

⁹⁸ *Trade Practices Act 1974* (Cth), sub-sections 152AH(1)(c) and (b).

the model to assess the impact of different assumptions and would therefore be precluded from making an effective argument for a different model architecture. An access seeker can only challenge PIE II by convincing Telstra to alter it or by producing its own model.⁹⁹ PIE II is therefore a take it or leave it proposition and hence cannot be accepted as meeting a requirement of transparency and malleability.

Secondly, Telstra has stated that individual parameters cannot be altered in isolation. Telstra argues that this would lead to an inconsistent set of assumptions in the model. If this is the case, it is hard to see how access seekers can constructively comment on the model. Specifically, Telstra is implicitly stating that any change in the model requires the model to be fully rebuilt. Again this amounts to an assertion that PIE II is a take it or leave it proposition, which cannot be the subject of effective industry comment and debate.

Finally, PIE II is particularly opaque and difficult to adjust. Telstra, for example, states that PIE II allows for future demand. The Commission, as noted below, questions the applicability of this assumption, but it is not clear how the assumption is implemented or how it can be changed. Further, understanding and manipulation of the model requires considerable time and expenditure.¹⁰⁰ The Commission believes that this has effectively prevented access seekers, with the limited exception of Optus, from effectively assessing the model. In this regard the Commission cannot accept the model as to do so would amount to delivering regulatory outcomes to the party that has the deepest pockets.

Within the context of these criticisms the Commission note that it is far from clear that PIE II has the optimal architecture. The Commission is, for example, concerned by the following assumptions in the PIE II model:

- Telstra makes use of rectilinear distances. While the Commission does not suggest that straight line distances are appropriate, it is far from clear that rectilinear distances will be appropriate to the extent asserted;¹⁰¹
- PIE II essentially calculates an ‘optimal’ structure based on minimising the distance of trenches. Copper is then added on the basis of engineering rules. It seems, and has been suggested by n/e/r/a, that at some point copper would become a relevant cost driver that should be optimised in the model rather than set exogenously;¹⁰²

⁹⁹ This is of course to be discouraged since it is clearly not in the interests of end users for service providers to spend vast amounts on regulatory models

¹⁰⁰ Access Economics, *The Economic Content of PIE II*, July 2003.

¹⁰¹ Telstra reports in section H6 of its submission that the length of trenches in PIE II is less than the length of trenches that would be expected ‘having regard to the length of roads in Australia’. Specifically, Telstra’s estimates of trench usage are unsupported. Statement such as a ‘60% uplift factor for road crossings in ... major rural areas’ seems to be unrealistically based on an assumption of a 17 metre frontage for houses in those areas. This may be reasonable in a built up *residential* area, but it is far from clear that it is reasonable in rural areas. In any case, if the end point for assessment of PIE II is that it is comparable to the amount of trench required to run along all roads in Australia, it seems unclear why PIE II is needed.

¹⁰² Telstra has refuted this point saying that copper is only [c-i-c] of total network costs while trenching accounts for [c-i-c].

- the use of pre-determined engineering rules does not necessarily produce an optimal network. Further, Telstra has provided little justification for the rules used; and
- PIE II is a TELRIC model, and Telstra supports this choice as being the most practical. It is, however, true that TELRIC models will tend to allocate all costs to the set of services that are modelled. In this case the Commission is concerned that costs are allocated to the PSTN which are not properly PSTN costs. For example, newer generation CMUX are used ubiquitously in the PIE II model. ADSL, however, is not included in the model architecture yet some of the costs of the CMUX must be allocated *strictly* to ADSL. To see this, suppose that PIE II were calculating TSLRIC. In this case, the costs *common* to both ADSL and PSTN are the costs of RIM technology which should be allocated across both services. This is because, if ADSL were not to be provided it would be unnecessary to have a CMUX, the costs would therefore be directly avoided by simply stopping ADSL.¹⁰³

The Commission does not suggest that these assumptions mean that PIE II is not an effective cost model, the above points do, however, raise questions about PIE II's optimality which in the context of Telstra's take it or leave it attitude to PIE II mean that it cannot reasonably be accepted as the appropriate model. In this context, the Commission notes that it has always been open to Telstra to provide a simpler model, provide clearer documentation or to help industry to come to a fuller understanding of the model.

Commission use of the PIE II model

Given the above difficulties with the model, the Commission has used the PIE II model in a limited sense. In this regard Optus claimed that the Commission had unduly relied on the PIE II model for the determination of model prices for the PSTN and the ULLS, notwithstanding concerns expressed by the Commission that it had reservations about the PIE II model.¹⁰⁴

The Commission has used the PIE II model only in the absence of a reasonable alternative. In relation to PSTN, PIE II has been used *only* to confirm the Commission's estimates – based initially on the n/e/r/a model – that conveyance cost in 2006-07 is likely to be around 0.7 cents.¹⁰⁵ The pricing for PSTN is then based on a glide path allowing Telstra and the industry to adjust to TSLRIC+ pricing. In this context the Commission was not convinced that the expense necessary to fully audit PIE II or produce an alternate cost model was justified in order to produce only one pricing figure.

In assessing ULLS network prices, however, it has been necessary to rely on PIE II to a greater extent. In this regard, as noted in Appendix B, the Commission was inclined

¹⁰³ The opposite is not true of PSTN. If PSTN were stopped, DSLAM or CMUX technology would still be required.

¹⁰⁴ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 42.

¹⁰⁵ See, ACCC, *Final Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services and*, October 2003, pp. 60-64.

to accept the PIE II estimates of ULLS costs as they compare favourably with previous prices and are based on a network architecture that is optimised to a greater extent than required according to the Commission's pricing principles or previous n/e/r/a model.¹⁰⁶ Further, in the context of urban distributions areas (DA) – which are those areas most likely to see growth in ULLS – PIE II uses a network architecture that is much more akin to the n/e/r/a model. Specifically, PIE II uses average trench and copper lengths based on a 'representative DA'. The Commission is therefore more inclined to accept that PIE II produces a reasonably robust estimate of ULLS costs which is not affected to the same extent as PSTN by the particular architecture of the model.

PIE II has therefore predominantly been used to confirm pricing that was in place previous to 2002. For ULL it would not have been used if its cost estimates were not in line with previous n/e/r/a estimates and in the context of PSTN it simply confirmed the Commission's long term forecasts. Given the need for an adjustment period in the PSTN, the Commission believes that a full audit of PIE II or construction of an alternate model could not be justified solely for pricing of the ULLS.

C.1.2. Telstra's Comments on the draft view

Telstra argued that the Commission's rejection of the PIE II model was not reasonable and that it had provided sufficient justification of the PIE II model.¹⁰⁷ Telstra raises several specific criticisms of the Commission's view; however, given that acceptance of the PIE II model does not directly impact on the assessment of this undertaking, the Commission does not have to come to a view on these specifics. There is, however, a fundamental disagreement between Telstra's and the Commission's respective views. Telstra believes that it is reasonable that, because of confidentiality, the need to protect the integrity of the model and intellectual property concerns; it is reasonable to restrict access to the model. The Commission, however, reiterates its draft view that any acceptable model must be open, transparent and easily manipulable and that its parameters should be based on a broad consensus of industry views.

C.1.3. The Commission's final view

The Commission maintains the view that the model builder bears the onus of showing the suitability of the model and that the suitability of PIE II has not been sufficiently established.

C.2. Future appropriate modelling assumptions

C.2.1. Provisioning Rules

Telstra provisions the network based on engineering rules which it claims are appropriate because they were used by Telstra as at 1 July 2002. The provisioning rules include provisioning for future demand which Telstra argues is appropriate because it is less expensive to build the PSTN with sufficient copper lines to satisfy

¹⁰⁶ See discussion below.

¹⁰⁷ See, Telstra, *Submission Relating to PSTN OTA and LCS Response to the Draft Decision on Telstra's Undertakings for PSTN, ULLS and LCS dated October 2004*, 29 November 2004, pp. 5-13.

future demand than it is to augment the PSTN with extra copper lines when that extra demand eventuates.

Telstra argues that there are two ways to ensure that all costs incurred in building the PSTN (which includes provisioning for future demand) are recovered:

- include the annual cost of provisioning for future demand from the time the network is built; or
- exclude costs of provisioning for future demand but include the costs of provisioning for future demand incurred in previous years.

Telstra notes that because the latter alternative results in higher costs than the former, it has chosen to implement the former in the PIE II model.¹⁰⁸

Optus noted that while it has not had sufficient time to review all of the provisioning rules within PIE II, it has amended some obvious under-provisioning problems including:

- improving the *maximum* capacity utilisation of CMUX units. The minimum [c-i-c] spare capacity in CMUX has been reduced to 10%.
- similarly, improving the capacity utilisation of SCAD LICs per SIO from [c-i-c] spare capacity to 10%.¹⁰⁹

Further, n/e/r/a/, in its report for Optus, suggests that Telstra has increased the portion of busy hour minutes per busy hour and that Telstra should justify this. Further they suggest that the engineering rules that are used are not optimised. In response Telstra stated that Optus' adjustments are essentially arbitrary and that its busy hour assumptions are reasonable.

The Commission's draft view

The Commission noted that there is an onus on Telstra to show that the assumptions that it uses are reasonable. In this regard the Commission believes that the source of the engineering rules used is not clear, and that any future model would need to be more detailed in this regard. Further, it seems that PIE II assumes that several services and, particularly basic access, will decline in the future. It is therefore not clear that Telstra should be allowed to recover costs for demand increases.¹¹⁰

The Commission's draft view was that, within the TSLRIC construct, provisioning for future demand will be paid for in the future because, as the model is recalculated each year, consumers in that year will pay for the provisioning. The Commission therefore took the view that there should not be any provisioning for future demand.

Finally, the Commission noted that it is not clear on what basis the engineering rules are determined. Therefore, while it may be optimal to apply standard engineering

¹⁰⁸ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, pp. 32-33.

¹⁰⁹ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 57.

¹¹⁰ In this regard the Commission notes that under an assumption of falling demand Telstra's claim that it is cheaper to pay now for future demand provisioning rather than pay in the future for previous future provisioning is no longer valid.

rules in many cases, these rules will vary to a greater or lesser degree to the particular situation. It is not clear based on Telstra's description that PIE II accounts for this. Specifically, the Commission believes that PIE II uses standard pillar sizes and cable gauges regardless of the dimension of the network in a particular DA. No convincing justification for this has been provided.

Telstra's response to the Commission's draft view

Telstra argued that the Commission's draft view was incorrect from a number of perspectives. Firstly, Telstra stated that the engineering rules that it uses are optimal and that it had provided information on these rules to the Commission. As the issue is not germane to the assessment of the current undertakings, the Commission does not have to come to a firm view on this matter. The Commission however notes that it agrees with Telstra that the pertinent issue is whether the engineering rules are optimal and reiterates that there is an onus on the model maker to show that this is the case.

Secondly, Telstra restated the case for allowing provisioning for future demand in TSLRIC modelling. In this regard, NECG provided a confidential paper arguing first, that it is optimal to provision for future demand where either demand is increasing or demand is stochastic, and second, that the Commission's pricing methodology will not allow for recovery of these optimally incurred costs.¹¹¹ Given the Confidential nature of NECG and Telstra's responses it is difficult to discuss the issue fully. The Commission, however, notes that it agrees with NECG that it is optimal to provision for excess demand where there is expected demand growth or stochastic growth in demand. The debate, however, centres on two other issues. First, whether demand is increasing and second, whether a TSLRIC+ model that does not allow for future demand will under compensate Telstra.

The Commission's final view

The Commission does not agree that there is necessarily increasing demand for fixed line services. Specifically, growth in the number of services that use networks other than Telstra's, be they mobile networks or other fixed line options, is likely to reduce demand on Telstra's network. Further substitution toward data related communications such as SMS and email is also likely to reduce demand for traditional PSTN based products. These changes mean that it is not appropriate for Telstra to continue to claim a fixed mark up for provisioning for future demand. The issue is more complicated and requires analysis and justification.

Further, whether or not the Commission's method will lead to under-recovery depends on the pricing movements of network elements over time. Specifically, if element costs are rising in real terms then it is less likely that the Commission's method will lead to under-recovery. A corollary to this fact is that Telstra's preferred method will provide over-recovery in a large number of cases unless real element costs are falling rapidly. It follows that if Telstra wishes to claim provisioning for excess demand it would have to provide evidence of likely demand changes, estimates of the likely direction of elements costs and show that steps have been taken to correct for the potential for over-recovery.

¹¹¹ See NECG, *Annexure E to Telstra's Submission in Response to the Draft Decision on its undertakings for PSTN OTA, LCS and ULLS dated October 2004: Efficiency and Optimal Provision for Future Demand*, November 2004.

C.2.2. WACC

Telstra's comments

Telstra's third supporting submission (dated 15 March 2004) referred the Commission to its submission to the (June 2003) Draft Determination (dated 31 July 2003) for a detailed explanation of the parameters Telstra considers should be used to calculate a WACC for costing the Undertakings services. However, the second supporting submission (dated 2 December 2003) updated, for 2005-06, the WACC parameters which Telstra consider should be used to calculate the WACC. Telstra submitted that upward trends in Government bond yields were such as to suggest that the contemporary best estimates for the WACC for 2005-06 were higher than past estimates for 2003-04 and 2004-05.

Table C.2.1 shows Telstra's estimates of the WACC components, as provided in Annexure K of Telstra's second supporting submission.

Table C.2.1. WACC Estimates [all figures are c-i-c]

| Parameter | 2002-03 | 2003-04 | 2004-05 |
|---|---------|---------|---------|
| Risk-free rate | [c-i-c] | [c-i-c] | [c-i-c] |
| Debt risk premium | [c-i-c] | [c-i-c] | [c-i-c] |
| Debt Issuance costs | [c-i-c] | [c-i-c] | [c-i-c] |
| Cost of debt pre-tax | [c-i-c] | [c-i-c] | [c-i-c] |
| Debt beta | [c-i-c] | [c-i-c] | [c-i-c] |
| Asset beta | [c-i-c] | [c-i-c] | [c-i-c] |
| Gearing | [c-i-c] | [c-i-c] | [c-i-c] |
| Equity Beta | [c-i-c] | [c-i-c] | [c-i-c] |
| Market Risk Premium | [c-i-c] | [c-i-c] | [c-i-c] |
| Imputation factor | [c-i-c] | [c-i-c] | [c-i-c] |
| Corporate tax rate | [c-i-c] | [c-i-c] | [c-i-c] |
| Cost of equity after tax | [c-i-c] | [c-i-c] | [c-i-c] |
| Nominal Post-tax "Vanilla" WACC included in undertaking | [c-i-c] | [c-i-c] | [c-i-c] |
| Cost of equity after tax including equity issuance costs | [c-i-c] | [c-i-c] | [c-i-c] |
| Nominal Post-tax "Vanilla" WACC including equity issuance costs | [c-i-c] | [c-i-c] | [c-i-c] |

In addition to updating the WACC parameters in its second supporting submission, Telstra lodged a third supporting submission which, *inter alia*, made a number of contentions relating to how the parameters used to calculate the WACC should be

determined following recent reviews of decisions made by the Commission in the gas industry by the Australian Competition Tribunal (ACT).

Telstra contended that the ACT's comments indicated that the Commission should not consistently adopt the lowest or minimum values from a range of estimates for the WACC parameters. In choosing the lowest values for WACC components, the Commission was more likely to estimate a WACC lower than the "true" WACC and that the asset owner will not earn sufficient returns to compensate for the likely risks involved. Telstra contended that the consequences of such an approach would be to discourage re-investment and modernisation of the PSTN.¹¹²

Telstra submitted that the Commission adopt Telstra's estimates of the WACC parameters for the reasons set out in its various submissions and the Bowman Report (included as Annexure C of the 31 July 2003 submissions). Telstra's contentions in relation to particular parameters are included in the discussion below of selected WACC parameters.

Industry comments

Optus submitted that it was more appropriate to use different WACC parameters from those submitted by Telstra or determined by the Commission in its previous deliberations on these matters.¹¹³ Optus' submission also noted the need to update some of the parameters in line with market conditions.

The more significant comments by Optus on various parameters are included in the discussion below of particular parameters.

Overall, Optus submitted that a nominal post-tax 'vanilla' rate of 5.12 per cent should be used. This compares to Telstra's (2 December 2003) updated estimate of [c-i-c] per cent.

Access Economics (AE) was commissioned by the Competitive Carriers Coalition (CCC) to provide an assessment of the PIE II model and the inputs, including the WACC parameters, required for use in that model. AE concluded that the WACC parameters proposed by Telstra were not appropriate and that their preferred parameters would reduce the WACC by almost 2 percentage points.

As for Optus, comments by AE on particular parameters are included below.

Comments by parties on particular parameters

Risk-free rate

Telstra submitted that the 10 year government bond rate should be used for the risk free rate (RFR) in the WACC calculation. The Commission's final determination in relation to model terms and conditions for the core services reaffirmed a view that the government bond rate that should be used for the RFR should be for bonds maturing over the same length of time as the relevant regulatory period.

¹¹² Telstra, *Telstra's Supplementary Submission in Support of its Undertakings dated 14 November 2003*, March 2003, pp. 9-10.

¹¹³ ACCC, *A report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services*, July 2000; and ACCC, *Final Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003.

In its third supporting submission, Telstra argued that recent comments by the ACT lend further weight to its argument that the 10 year bond rate should be preferred over using rates for government bonds maturing over the same period of time as the regulatory period.

Telstra also submitted that the averaging of bond yields was not appropriate for forming the RFR and that a point in time bond yield at the start of the regulatory period is appropriate.

Optus and AE submitted that the RFR should correspond with the period over which time the Undertakings are to operate, that is, 3 years. Also, Optus contended that the relevant bond rates should be averaged to correct for day-to-day fluctuations.¹¹⁴

Market risk premium

Telstra submitted that the market risk premium (MRP) and the RFR need to be interdependently determined. That is, the RFR upon which the MRP is based needs to be consistently applied in the CAPM formula and also used as the RFR input in that calculation.

Telstra's third supporting submission argued that the ACT had made decisions which supported its view that, in estimating the market risk premium (MRP) rate, there should be consistency as between the RFR used in that estimation and as directly used for the RFR in the CAPM formula.¹¹⁵ More particularly, a 10 year government bond rate that is generally used to estimate the MRP should also be used as the RFR input in the CAPM formula.

However, Telstra argued that were the Commission to use a government bond rate for a maturity period of less than 10 years as the RFR, for example, commensurate with the length of the regulatory period, the MRP would need to be adjusted upward to reflect the difference between the Commission's lower RFR and the market return.

Optus submitted that Telstra's proposed [c-i-c] per cent MRP was too high and that estimates of the MRR had been falling in recent years. Also, Optus contended that, were the Commission to decide that the imputation factor (see below) should be less than one, reflecting the fact that Telstra's overseas investors could not enjoy the benefits of tax imputation, then the MRP should be reduced because international investors can better diversify investments and reduce risk. Taking these matters into account, Optus contended that the MRP should be no greater than 3 per cent.¹¹⁶

Access Economics noted that a figure of 6 per cent is well accepted but that a figure less than 3.5 per cent could also be supported.¹¹⁷

¹¹⁴ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 70.

¹¹⁵ Telstra, *Telstra's Supplementary Submission in Support of its Undertakings dated 14 November 2003*, 15 March 2004, p. 6.

¹¹⁶ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, pp. 70-71.

¹¹⁷ Access Economics, *The Economic Content of PIE II*, July 2003, p. 5.

Asset beta

In Telstra's submission of 31 July 2003, Telstra provided an analysis of overseas benchmark data to arrive at an asset beta of [c-i-c]. However, in its 2 December 2003 submission, this measure was revised upward to [c-i-c]. No supporting analysis was provided in that submission to justify this figure.

Optus submitted that Telstra's PSTN revenues were largely invariant to changing market conditions and that the asset beta should therefore be set at zero or close to zero (0 to 0.25)¹¹⁸.

AE submitted that a figure no higher than 0.5 was appropriate.¹¹⁹

Tax rate

Telstra submitted that the statutory corporate tax rate should be used as the most appropriate forward looking tax rate that can educate investors about the future tax burden. In Telstra's view, it should be preferred to the effective tax rate because of the difficulties of estimating this rate, especially at the sub-firm level of PSTN assets. In any event, Telstra notes that the WACC is not especially sensitive to the choice of this parameter.

Optus supported use of the effective tax rate.

Imputation factor

Optus submitted that, were the Commission to adopt an imputation factor of less than unity, based on the notion that non-domestic investors cannot utilise imputation credits, then other parameters used in the WACC calculation would need to be adjusted to reflect differences between the domestic and international market place. In its view, such factors as the MRP, beta values and effective tax rate would need to be lowered.¹²⁰

AE submitted that there was strong evidence that a figure close to unity was appropriate.¹²¹

Asymmetric risk

Telstra submitted that it was exposed to asymmetric risk whereby it is forced to fully bear losses if PSTN assets under-perform but it must share the benefits from successfully performing PSTN assets, used to supply declared services, with access seekers. In relation to the potential for PSTN assets to under perform, Telstra noted

¹¹⁸ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 71.

¹¹⁹ Access Economics, *The Economic Content of PIE II*, July 2003, p. 5.

¹²⁰ Optus, *Optus' Submission to Australian Competition and Consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 69.

¹²¹ Access Economics, *The Economic Content of PIE II*, July 2003, p. 5.

that new technologies (for example, IP telephony) may involve by-pass of the PSTN causing PSTN assets to become stranded.¹²²

Telstra noted that there were various options for addressing asymmetric risk, including erring on the high side of a range of beta estimates used in the WACC formula and applying a premium to the WACC. In regard to the latter, Telstra indicated it was attempting to quantify a percentage mark-up on the post tax vanilla WACC.¹²³

In its response to the Commission's draft decision, Telstra presented a report prepared by NECG on asymmetric risk.¹²⁴ This document raised two main contentions. First, NECG referred to a recent decision of the Productivity Commission which discussed the effect of asymmetric regulation in the gas industry.¹²⁵ The PC's report shows that asymmetric regulation requires adjustment of the asset beta used in the CAPM and an adjustment factor applied to the WACC. Second, NECG argues that Telstra faces asymmetric risk and the adjustments suggested by the PC should therefore be made.

In relation to the PC's report, where there is asymmetric risk associated with truncation of the rate of return (ROR), there may be a case for an adjustment to returns. However, the Commission does not accept that Telstra faces asymmetric risk in its provision of the PSTN and ULLS services.¹²⁶ In its report, the PC identifies several sources of ROR truncation in the gas industry. Predominantly this truncation occurs where there is some kind of revenue sharing system which comes in to play where the regulated entity earns a ROR sufficiently above the allowed rate. There is no such system in place in relation to the PSTN and no such system has been mooted. The Commission sets a WACC which defines a rate of return which will be earned by Telstra if the demand and cost¹²⁷ estimates are accurate. To the extent that these estimates are *ex post* inaccurate then Telstra will earn either a higher rate of return or a lower rate of return. This variation in the rate of return will, assuming accurate demand and cost estimates, be *symmetric* about the expected rate of return. In fact, Telstra's demand estimates consistently turn out to be too low, giving Telstra a ROR above that which the Commission 'allows'. If anything then the distribution is skewed toward the upside.

The Commission believes that Telstra's arguments surrounding asymmetric risk are premised on the misapprehension that the Commission will reduce the ROR that is allowed if and when Telstra performs better than expected. This, however, is not true.

¹²² Telstra, *Submission on the Draft Determination for Model Price terms and Conditions of the PSTN, ULLS and LCS Services*, 31 July 2003, pp. 38-41.

¹²³ Telstra, *Submission on the Draft Determination for Model Price terms and Conditions of the PSTN, ULLS and LCS Services*, 31 July 2003, p. 41.

¹²⁴ See, NECG, *Annexure F to Telstra's Submission in Response to the Draft decision on its Undertakings for PSTN OTA, LCS and ULLS dated October 2004*, November 2004.

¹²⁵ See, Productivity Commission, *Review of the Gas Access Regime: Productivity Commission Inquiry Report*, Report no.31, 11 June 2004, Appendix B.

¹²⁶ PSTN and ULLS are the services for which any asymmetric risk mark-up to the WACC would apply. The WACC calculation, and therefore asymmetric risk arguments, referred to in this report do not affect the pricing of the LCS.

¹²⁷ That is the actual collar cost to Telstra rather than the opportunity cost which is arrived at by combining costs with the WACC.

The Commission has been highly consistent in its application of the WACC to the PSTN over the 6 years that it has been regulated. If anything, the Commission has erred on the side of caution allowing low demand estimates and raising the WACC. In this report, for instance, the Commission has raised the allowable WACC as a result of the GasNet Decision.

Commission's views

As in its model price terms and conditions determination, the Commission believes WACC parameters similar to those set out in its assessment of Telstra's second PSTN undertaking remain appropriate in the majority of cases.¹²⁸ With regard to the appropriate risk-free rate, the Commission believes that a risk-free should be estimated as a ten-day average leading up to the beginning of that period. As a result of the Australian Competition Tribunal's GasNet decision, the Commission will calculate a 10-year risk-free rate.

Further, in any further modelling work, the Commission would need to explore whether any debt or equity issuance costs should be included as a part of the WACC. If inclusion of debt or equity issuance costs was considered to be appropriate, these costs may be accounted for inside any future model as part of indirect costs or as part of the WACC.

Finally, the Commission believes that Telstra faces no asymmetric risk as a result of the Commission's regulation of PSTN and ULLS services, and that no mark-up to the WACC related to asymmetric risk is appropriate.

C.2.3. Network Planning Costs

As noted in its model price terms and conditions, network planning costs appear to be the costs Telstra estimates another network provider would incur in designing its PSTN network. These costs are in addition to the efficient annual network planning costs that Telstra incurs in the course of normal extensions to the PSTN.

Telstra's comments

Telstra contends that network planning cost should be included in the estimate of network costs.¹²⁹ It submits that without network planning activity it would not be possible for any access seeker to build an efficient best in use network. Further, it submits that given a network is constantly evolving it is essential that planning be undertaken to ensure that the necessary changes happen when required.¹³⁰

Industry comments

In its submission to the assessment of the Undertaking, Optus indicates that it agrees with the Commission's assessment that the inclusion of network planning costs is

¹²⁸ ACCC, *A Report on the Assessment of Telstra's Undertakings for the Domestic PSTN Originating and Terminating Access Services*, July 2000.

¹²⁹ Telstra, *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings dated 9 January 2003*, February 2003, p.13 and Telstra, *Submission on the Draft Determination for Model Prece Terms and Conditions of the PSTN, ULLS and LCS Service*, 31 July 2003 pp. 8-9.

¹³⁰ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, p. 44.

inconsistent with the TSLRIC approach, and concurs with the view that such costs should not be allowable for the purposes of setting access prices.¹³¹

Other interested parties indicated that network planning costs are above industry standard, inflating the prices for ULLS, and may influence the prices calculated by the Commission. In response, Telstra questioned the foundation of these specific comments and submitted that without clarification or further empirical support and evidence, the Commission should reject the comments.

Commission's view

The Commission continues to hold the same view as detailed in its model price terms and conditions report. It considers that network planning costs are hypothetical costs that would be incurred by an access seeker should it develop an alternate network. They are not costs Telstra needs to recover,¹³² and should therefore not be included in calculating TSLRIC of the network. Allowing Telstra to recover costs it does not actually incur is against legislative criteria and conflicts with LTIE.

Although some network planning costs are associated with the ongoing maintenance and replenishment of infrastructure, any such costs should be appropriately covered by operation and maintenance costs which are allowed for by the Commission. As the Commission considers the inclusion of network planning costs is inconsistent with the principles of TSLRIC using a scorched-node approach, it does not propose to allow for network planning costs in the PIE II model. Therefore, in response to access seeker concerns, the Commission notes that it did not accept the inclusion of network planning costs in its consideration of the model price terms and conditions. In this regard, the Commission notes that its calculation of appropriate indicative prices exclude these costs, and therefore would not be inflated due to the use of this parameter.

As the Commission considers the inclusion of network planning costs to be inconsistent with principles of TSLRIC using a scorched-node approach, these costs should not be included in any PSTN network modelling exercise.¹³³

C.2.4. Indirect, operation and maintenance factors

Telstra's comments

Telstra's second supporting submission to its 9 January 2003 undertakings sets out Telstra's approach to estimating operational and maintenance costs (O&M) for PSTN assets. In summary, O&M costs are summed for all relevant asset categories across all business units (except the corporate cent business unit) and these costs are divided by the capital value of each asset category to derive an O&M percentage value.

¹³¹ Optus, *Optus submission Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, 16 March 2004, p. 77.

¹³² Telstra has developed its network over a long period of time, with the costs of planning long recovered.

¹³³ Telstra, in its submission to the draft report stated that it believes that network planning costs are costs that are actually incurred. The Commission continues to be of the view that some network planning costs may be associated with ongoing maintenance and replenishment of infrastructure. These costs are, however, only incurred on some parts of Telstra's network and should be recovered as part of ongoing operational and maintenance expenses.

Telstra's indirect cost estimates comprise estimates for indirect O&M costs and indirect capital costs.

Telstra's second supporting submission to its 9 January 2003 undertakings sets out Telstra's PIE II approach to estimating these costs. In summary, the indirect O&M costs are O&M costs incurred by the corporate centre business unit while the indirect capital costs are the capital costs of the corporate centre business unit, including land and buildings. The indirect costs are then divided by the capital value of each PSTN asset category to derive percentage values.¹³⁴

Telstra claimed that the PIE II calculation for both of these indirect cost categories for 2002-03 were below actual historic costs for these categories in 2001-02, implying that the PIE II calculations were conservative.¹³⁵

Industry comments

Optus submitted that Telstra's cost modelling makes no attempt to optimise non-network or indirect costs. Rather, these costs are summed across Telstra's general ledger and shares are allocated to the Undertakings services as a percentage of the historic cost base. Optus contended that such an approach will overstate efficient non-network costs.¹³⁶

Commission's views

In regard to indirect O&Ms and indirect capital costs, inclined to accept Telstra's approach – this is not too dissimilar to previous NERA approach where estimates derived from Telstra accounting information was used with some optimisation of certain factors. The Commission, however, continues to believe that there should be some adjustment of accounting information to account for efficiency. It is not clear to what extent Telstra has incorporated such an adjustment.

C.2.5. ADC parameters

While Commission's views on the Access Deficit Contribution are contained in Appendix D, the following deals with Telstra and access seekers' views on the components of the ADC calculation should its inclusion be deemed appropriate.

Maximum Subscription Revenue

Telstra's comments

Telstra defines the maximum subscription revenue as the maximum that it could earn for the basic access service whilst still complying with the price caps given the 2001-02 basic access revenue earned by Telstra.

Telstra argues that while Telstra does calculate the ADC (Telstra uses the term "Unrecovered PSTN CAN Costs" or UPCC) based on maximum subscription

¹³⁴ Telstra, *Telstra's Further Submission in Support of its Undertakings dated 14 November 2003, 2 December 2003*, pp.13-14 and Annexures H and I.

¹³⁵ Telstra, *Submission on the Draft Determination for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, 31 July 2003. p. 43.

¹³⁶ Optus, *Optus submission Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, 16 March 2004, p. 48.

revenues, this approach is likely to understate the level of efficient costs.¹³⁷ Therefore, Telstra has recalculated its avoidable basic access costs. Based on the 2001-02 regulatory accounts, Telstra’s avoidable basic access costs are [c-i-c] per service in operation (“SIO”).¹³⁸ This has caused the maximum subscription revenue to increase to [c-i-c] million in 2002-03, [c-i-c] million in 2003-04 and [c-i-c] million in 2004-05.¹³⁹ The calculation of total maximum subscription revenue, that is, total of retail revenue plus wholesale revenue is detailed below.

Table C.2.2. Telstra’s maximum subscription revenue calculation [all figures c-i-c]

| Annual Revenues | 2002-03 (\$m) | 2003-04 (\$m) | 2004-05 (\$m) |
|------------------------------------|------------------|------------------|------------------|
| Retail Revenue | [c-i-c] | [c-i-c] | [c-i-c] |
| Wholesale Revenue | [c-i-c] | [c-i-c] | [c-i-c] |
| Total Maximum Subscription Revenue | [c-i-c] | [c-i-c] | [c-i-c] |

Industry comments

Optus considers that the maximum subscription revenues have been underestimated in 2000-01 as the starting point for this calculation should be the actual retail revenue received by Telstra as was allowable under the price cap in 2001-02 (equal to [c-i-c] billion) for line rentals. Optus, therefore, claims that this underestimation, combined with Telstra’s underestimation of actual and forecast lagged CPI rates, indicates that maximum subscription revenues should be much higher than those used by Telstra in its undertaking and in PIE II. Optus has recalculated subscription revenues by including revised higher estimates, which reflects Telstra being able to recover more subscription revenue and therefore reduce the size of the access deficit by around [c-i-c] billion over three years.

¹³⁷ Telstra’s arguments as to why the price cap may not provide the most appropriate upper bound for the calculation of subscription revenue in the UPCC calculation are discussed in section 3 of the Ergas Pricing Report attached to Telstra, *Telstra’s Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003.

¹³⁸ Telstra, *Telstra’s Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, Appendix N.

¹³⁹ *Ibid*, Appendix O.

Table C.2.3. Re-calculated subscription revenues [all figures c-i-c]

| | 2001-02 | 2002-03 | 2003-04 | 2004-05 |
|---|---------|---------|---------|---------|
| Net retail revenue (\$m) | [c-i-c] | | | |
| CPI | | [c-i-c] | [c-i-c] | [c-i-c] |
| CPI + 4% | | [c-i-c] | [c-i-c] | [c-i-c] |
| Net retail revenue available (\$m) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Average number of retail SIOs | | [c-i-c] | [c-i-c] | [c-i-c] |
| Unit retail revenue per SIO (\$/year) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Wholesale discount (\$/SIO/year) ¹⁴⁰ | | [c-i-c] | [c-i-c] | [c-i-c] |
| Wholesale revenue (\$/SIO) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Average number of wholesale SIOs | | [c-i-c] | [c-i-c] | [c-i-c] |
| Wholesale subscription revenue (\$m) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Total maximum subscription revenues (\$m) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Telstra's calculated MSR (\$m) | | [c-i-c] | [c-i-c] | [c-i-c] |
| Difference (\$m) | | [c-i-c] | [c-i-c] | [c-i-c] |

USO Revenue***Telstra's comments***

Telstra submits that its method of deducting the entire PSTN-related USO amount from the PSTN CAN cost pool, while appropriate with respect to the contributions towards PSTN-related USO costs received from other carriers, is overly conservative in terms of the contributions that Telstra makes towards the PSTN-related USO costs. Telstra consider that it would be more appropriate for it to recover contributions towards the PSTN-related USO costs from both wholesale and retail prices. In this regard, Telstra indicates that it reserves the right to make this adjustment.¹⁴¹

The USO revenue included in the PIE II model is \$223.7 million for 2002-03, \$221.1 million for 2003-04 and \$200.4 million for 2004-05. Telstra submit that this is calculated by adjusting the total USO amount received or to be received by Telstra for the net costs of payphones as follows:

¹⁴⁰ Telstra's updated RAF data shows that the wholesale discount would be [c-i-c] however for the sake of simplicity in this analysis we have not incorporated this reduction in basic access retail costs at this stage. This adjustment would increase wholesale revenues, therefore causing a further reduction in the size of the access deficit.

¹⁴¹ Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, p. 46.

Table C.2.4. USO revenue assumptions

| | USO amount received by Telstra (\$m) | Payphone component (\$m) (Default area) | USO amount attributable to PSTN (\$m) |
|---------|--------------------------------------|---|---------------------------------------|
| 2002-03 | [c-i-c] | [c-i-c] | [c-i-c] |
| 2003-04 | [c-i-c] | [c-i-c] | [c-i-c] |
| 2004-05 | [c-i-c] | [c-i-c] | [c-i-c] |

Telstra indicate that this adjustment is made because payphones are not part of the PSTN and thus their cost is not included in the PSTN CAN cost pool.¹⁴²

Industry comments

In contrast, AAPT questions the relevance of USO revenues in the calculation of an ADC. AAPT argues that Telstra's under-recovery is met by the USO revenue received by Telstra. In this regard, AAPT argues that both Telstra and its competitors will contribute to the unrecovered costs of basic access through the USO scheme.¹⁴³ AAPT indicate that the way in which the USO payments are calculated reveals that any net losses arising from Telstra's obligation to supply basic access are funded without need to resort to the ADC.¹⁴⁴

Optus submits that it generally agrees with the approach taken by Telstra in its PIE II model in netting the USO revenues off against its PSTN CAN costs in calculating the access deficit. However, it considers that Telstra should not be allowed to recover its contributions towards the PSTN-related USO costs from both wholesale and retail as this would result in a double recovery for Telstra.¹⁴⁵

Recovery of costs from local calls and LCS

Telstra's comments

Telstra has calculated its retail avoidable costs of local calls to be [c-i-c] per local call.¹⁴⁶ Subtracting those costs from the maximum GST exclusive price of local calls

¹⁴² Telstra, *Telstra's Submission in Relation to the Methodology Used for Deriving Prices Proposed in its Undertakings dated 9 January 2003*, 13 February 2003, p. 15.

¹⁴³ Telstra refutes this argument in its submission to the draft report stating that the USO revenue goes to providing basic access in universal service areas. See Telstra, *Submission Relating to PSTN OTA and LCS in Response to the Draft Decision on Telstra's Undertakings for PSTN and LCS dated October 2004*, 29 November 2004, p. 15.

¹⁴⁴ AAPT, *Submission to the ACCC by AAPT Limited*, 9 July 2003, pp. 12-15.

¹⁴⁵ Optus, *Optus submission to the ACCC on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, pp. 17-18.

¹⁴⁶ The calculations of those costs are set out in detail in Annexure N to Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003.

([c-i-c] per call¹⁴⁷), gives the maximum amount of costs which Telstra is able to recover from local calls of [c-i-c] per call.

Telstra submits that, as the Commission has in the past stated that it does not consider it appropriate for the LCS price to exceed the retail price less avoidable retail costs¹⁴⁸, the price of LCS cannot exceed [c-i-c] per call and thus costs only up to this maximum can be recovered from LCS.

Telstra notes that if the review that the Commission has foreshadowed will result in reducing the price of the LCS which Telstra is able to obtain for access seekers, the maximum LCS price recoverable by Telstra will fall.

Industry comments

Optus submits that the access deficit does not exist, and in this regard, nor does a local call deficit. Optus considers that Telstra is not being constrained by the retail price controls to price below TSLRIC for local calls, and points to the falls in price and increased discounting in Telstra's average retail price for local calls. Therefore, Optus argue that local call costs should not be recovered via Telstra's claimed access deficit.

Commission's views

While Appendix D outlines the its views on the Access Deficit and the Access Deficit Contribution, the Commission notes that should the ADC need to be calculated, industry has raised sufficient concern for Telstra's ADC calculation to be questioned. In addition to industry comments above, the Commission notes that it continues to believe that:

- the "local call deficit" does not exist;
- Telstra's allocation of the ADC to flagfall and EMOU charge is inappropriate; and
- the level of Retail Costs in the ADC calculation is disputed by industry.¹⁴⁹

C.2.6. Trench and Duct Sharing

Trench sharing has the overall effect of reducing the cost of trenches in the provision of PSTN services. This can occur in two main ways, reflecting the two basic types of trench sharing.

First, there is sharing which reduces the total trench length. This comprises:

- sharing within a network, e.g. within the feeder network ;

¹⁴⁷ See Telstra Carrier Charges - Price Control Arrangements, Notification and Disallowance Determination No 1 of 2001 which enables Telstra to charge its retail customers 22 cents per local call (inclusive of GST) in 2001-02 to its retail customers. In this analysis, Telstra has assumed that this cap will continue until 2004-05.

¹⁴⁸ ACCC, *Local Carriage Service Pricing Principles and Indicative Prices Final Report (Revised)*, April 2002.

¹⁴⁹ Telstra disputes that the calculation is not correct in its submission to the draft report. The Commission's view is that the retail costs are a contentious matter but that, as the issue is not directly relevant to this decision, the Commission does not have to come to a final view on this matter.

- sharing between feeder and distribution networks; and
- sharing between the customer access and conveyance networks.

Second, there is sharing that reduces the costs that should be allocated to PSTN services. This comprises:

- sharing with other telecommunications carriers and Pay TV operators; and
- sharing with utilities in new estates.

Trench and duct sharing within the Telstra network¹⁵⁰

Telstra submit that as a result of the sharing rules applied in the PIE II model, the total trench lengths for 2003-04 calculated by the PIE II model are as follows:

- ducted trenches – [c-i-c] kilometres;
- ploughed trenches – [c-i-c] kilometres; and
- total trenches – [c-i-c] kilometres.

Having regard to the length of roads in Australia, Telstra submits that:

- a minimum of [c-i-c] kilometres of ducted trenches; and
- a minimum of [c-i-c] kilometres of total trenches

would be required for the PSTN in 2002-03. Telstra notes that it has not updated this analysis to determine the minimum trench lengths required for the PSTN in 2003-04, however, it observes that the trench lengths estimated by the PIE II model for 2003-04 do not exceed the minimum trench lengths required in 2002-03. Therefore, it submits that the estimates in the PIE II model are conservative. Telstra argues that the efficient network cost of ducts and trenches are further underestimated by the PIE II model.¹⁵¹

Trench and duct sharing with others¹⁵²

Telstra's comments

Telstra submits that its PIE II model assumes that:

- Telstra can recover [c-i-c] per kilometre of shared duct from third parties;
- Telstra share [c-i-c] kilometres of duct with Telstra Multimedia Pty Ltd;
- Telstra shares [c-i-c] kilometres of duct with third parties, such as Optus, AAPT or Primus.

Telstra considers that to determine the level of costs that can be recovered from sharing trench and duct space with third parties, the revenue actually received by Telstra for sharing should be deducted from the trench and duct cost pool. It argues

¹⁵⁰ Appendix J of *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003* outlines the methodology used to estimate PSTN trench lengths.

¹⁵¹ Telstra, *Telstra's Further Submission in Support of its Undertakings dated 14 November 2003*, 2 December 2003, pp. 7-8.

¹⁵² See Telstra, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003, p. 34-36.

that this is because the maximum level of costs that can be allocated to third parties is limited by their willingness to pay for the service.

Telstra submits that there are difficulties with the Commission's advocated approach of allocating an equal share of costs to each party using the trench or duct, and the approach of allocating on the basis of a hypothetical efficient level of sharing. Telstra argues that both of these approaches allocate costs without regard to the willingness to pay of the third party users.

Telstra also notes that it is important to consider the incentives that the proposed approach may have on the efficient use of infrastructure in the future. Telstra claims that its proposed approach for dealing with trench and duct sharing would recognise that any revenues received would result in a reduction in the ADC. This may reduce the incentive to seek out such opportunity for trench sharing tenants if the ADC reduction were offset by a reduction in the PSTN OTA prices. However, since the majority of the ADC is allocated to Telstra's PSTN Retail Services, this risk is greatly reduced. For example, if Telstra carries 80% of the PSTN traffic, an additional dollar of revenue from shared facilities would reduce Telstra's recovery of ADC by only 20 cents. Therefore, under Telstra's proposed approach, the incentives for efficient facilities sharing are reduced only slightly.

However, suppose that a portion of the costs of shared facilities were deducted from the ADC based on a sharing rule that exceeded the revenues actually received by Telstra (as would be the case under the two alternatives identified above). In that case, Telstra argues that it would have much less incentive to seek out efficient sharing arrangements. Sharing of facilities would result in a reduction in the ADC by an amount in excess of the revenues received. Telstra would lose more in ADC than it would gain in sharing revenue and would therefore be unwilling to enter into a facilities sharing agreement, even if this were in the long term interests of end users.

Industry comments

Optus argues that Telstra has underestimated the benefits of duct sharing. In particular, it submits that PIE II assumes that Telstra receives revenue of [c-i-c] per km for duct sharing, while Optus notes that it has an effective rate of [c-i-c] per km and given its scale will likely to be at the lower end of Telstra's prices.

Trench and duct sharing in new estates

Telstra's comments

Telstra estimates that during any particular year there are at most 1% of services connected in new estates, where Telstra can share trenches with others. Given that the cost of new estates is often borne by estate developers, the PIE II model excludes 1% of trench costs from the PSTN cost pool.¹⁵³

Telstra notes that in recent years it has extended the PSTN to provide new services as follows:

¹⁵³ Calculation of the services connected in new estates is set out in Annexure E of *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings dated 9 January 2003, 13 February 2003.*

Table C.2.5. New services in operation [all figures c-i-c]

| Year | Living Units |
|---------|--------------|
| 2000-01 | [c-i-c] |
| 2001-02 | [c-i-c] |
| 2002-03 | [c-i-c] |

The number of PSTN services in operation for these periods are as follows:

Table C.2.6. PSTN services in operation

| Year | Basic Access Lines (millions) |
|---------|-------------------------------|
| 2000-01 | 10.46 |
| 2001-02 | 10.4 |
| 2002-03 | 10.31 |

*Figures taken from Telstra's annual report for 2002-03

Therefore, Telstra submits that the services in new estates are approximately [c-i-c] of the total stock of basic access lines in any year, and thus the assumption that 1% of services have been connected in new estates is conservative.¹⁵⁴

Industry comments

Optus argues that, while it agrees with the Commission's approach of increasing the 'new estate' assumption to reflect the sharing of trenches in estates where developers have had responsibility for trenches, Optus considers that the 13 per cent applied by the Commission in its final model price terms and conditions is too conservative and, in particular, does not fully reflect Telstra's past ability to share trenches. In this regard, Optus argues that Telstra's ability to share should be reflected in PIE II. Optus also notes that the level of trench sharing between the CAN and IEN within PIE II is less than Telstra's capacity to share.¹⁵⁵

In this regard, Optus considers that the current trench sharing as occurs in new developments provides a more reliable guide to Telstra's capacity or ability to share trenches in the past, which should be reflected in PIE II by setting the proportion of new estates to 100%.

Commission's views

As noted in its model price terms and conditions, the Commission believes that the scorched-node methodology that is considered appropriate in determining TSLRIC prices dictates that the level of trenching in new estates should reflect both Telstra's

¹⁵⁴ Telstra, *Telstra's Further Submission in Support of its Undertakings dated 14 November 2003*, 2 December 2003, p. 8.

¹⁵⁵ Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004, p. 51.

past ability to share trenches with utilities in new estates, and its ability to share over the regulatory period. This is because the appropriate network modelled should be Telstra's network, as it would look if it were optimised, and not a hypothetical new entrant's network.

The Commission considers that the PIE II model should reflect the assumption that new estates make up around 13 per cent of Telstra's network.¹⁵⁶ Telstra claims that the 13 per cent assumption is an inappropriate input into PIE II as the model would consider 13 per cent of estates in each service area are new estates, however, this is not the case in CBD and Rural areas. Most new estates are likely to be in Metropolitan areas.

¹⁵⁶ Based on conservative estimates of the accumulative stock of new estates over the last 10 years.

Appendix D. Access Deficit

D.1. Commission's draft view

Introduction

Issues surrounding the addition of an access deficit contribution (ADC) to core services access prices – particularly PSTN origination and termination (PSTN O/T) have dominated regulatory proceedings on these services in recent years. However, in its letter of 14 November 2003,¹⁵⁷ Telstra confirms that acceptance of the Undertakings by the Commission will lead it not to

claim an ADC increment in regulatory proceedings regarding the price for any of the Undertaking Services for the 2006-07 financial year and beyond ...

However, Telstra included four bases on which this commitment rested. Of particular relevance here is the following:

The commitment does not constitute an acknowledgement that an access deficit will not exist in 2006-07 or subsequent years or that Telstra's claim in respect of the ADC ... is not or would not be valid.

While the Commission had previously allowed an ADC to be added to the PSTN O/T price, its review of the ADC in 2003 led it to adopt the view that the inclusion of an ADC is inconsistent with the long term interests of end users (LTIE).¹⁵⁸

Particularly with reference to evaluating the case for an ADC, assessment of whether an access price satisfies LTIE is based on four main criteria:¹⁵⁹

- achieving more efficient use of telecommunications infrastructure;
- achieving more efficient investment in telecommunications infrastructure;
- having regard to the legitimate commercial interests of access providers; and
- the promotion of competition.

As these issues were covered in detail in the final 'indicative prices' report¹⁶⁰ the arguments are considered here more briefly, with emphasis on events and further argument since that report.

¹⁵⁷ Letter from Bill Scales to Ed Willett, *Access Deficit Contribution ("ADC")*, 14 November 2003.

¹⁵⁸ Following the release of the Commission's Discussion Paper (ACCC, *The Need for an ADC for PSTN Access Service Pricing*, February 2003), it received ten submissions from interested parties: Telstra (151 pages including confidential materials); Primus Telecommunications (48 pages); Optus (41 pages); n/e/r/a for Optus (33 pages); CoRE Research (33 pages); AAPT (8 pages); PowerTel (7 pages); Macquarie Corporate Telecommunications (6 pages); ATUG (5 pages); and Comindico (3 pages). The Commission's response was contained in ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, Ch. 8.

¹⁵⁹ The other main criterion, achieving *any-to-any connectivity*, is neither enhanced nor reduced by altering the ADC and is therefore not relevant to this debate.

¹⁶⁰ ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003.

More efficient use of telecommunications infrastructure

The issue here is whether the inclusion of an ADC in the price of PSTN O/T enhances or detracts from the efficiency in use of relevant telecommunications infrastructure. The Commission's position at the time of the Price Terms and Conditions report was that removal of the ADC would enhance allocative economic efficiency by removing part of the wedge that separates price (reflecting willingness to pay) from underlying cost of provision.

The efficiency costs from existing pricing are likely to be high because of the combination of two characteristics. First, retail prices for the call services covered by the declared services (essentially FTF, FTM and international calls) are all well in excess of the underlying cost of production. Second, demands for these services are quite elastic. Therefore, the marginal efficiency gain from reducing these prices is likely to be high.¹⁶¹

Part of the difference between price and cost is the ADC.¹⁶² To the extent that the removal of the ADC was passed on in lower retail prices, there would be positive efficiency consequences.¹⁶³

Telstra presented an argument in its response to the ADC discussion paper that removal of the ADC would damage both Telstra and consumers (through *higher* retail prices) but benefit access seekers.¹⁶⁴ Calibration of the model led it to the conclusion that the costs to Telstra and consumers would exceed the benefits to access seekers, thus resulting in a net efficiency loss. This analysis was subjected to a critique by Joshua Gans¹⁶⁵ who, *inter alia*, found a significant computational error in the analysis and formed the view that there were 'counter-intuitive' aspects of the analysis and underlying approach. A rejoinder by NECG¹⁶⁶ on behalf of Telstra followed. While the reasons are not dealt with at length in this report, the Commission believes that theoretical and empirical deficiencies in the Telstra-NECG analysis render its result invalid.

In summary, Telstra has not presented any new evidence to suggest that the inclusion of an ADC in access pricing is consistent with enhanced efficiency in use of telecommunications infrastructure, and the Commission continues in its belief that

¹⁶¹ For example, in the case of FTM calls average prices are around 38 cpm and costs are around 14 cpm, with an estimated elasticity of -0.6 (see ACCC, *Mobile Termination Access Service*, Final Decision, June 2004, pp. 153-154).

¹⁶² Telstra continues to argue that the ADC (or what it sometimes calls the unrecovered PSTN CAN cost, UPCC) is part of 'efficient costs' of supplying the declared service. The Commission continues in its belief that the ADC is not a cost, but a transfer.

¹⁶³ Note however that Telstra's ability to raise STD, IDD and FTM prices is limited by the operation of the retail price controls. STD, IDD, FTM and local calls are subject to a constraint that, as a group, they cannot change in price by an amount above CPI minus 4.5 per cent.

¹⁶⁴ Telstra's analysis was contained in a confidential attachment (14) to its response to the ADC Discussion Paper titled 'Modelling the Effect of Telstra Absorbing the Full Access Deficit'.

¹⁶⁵ J. Gans, 'Reducing PSTN Interconnection Charges Will Lower Retail Telecommunications Prices: A Response to Telstra's Submission', confidential report on behalf of AAPT Ltd, CoRE Research, 27 June 2003.

¹⁶⁶ NECG, *Response to Gans' Submission "Reducing PSTN Interconnection Charges Will Lower Retail Telecommunications Prices" Confidential Report Prepared for Telstra*, March 2004.

removal of the ADC will lead to more efficient use of PSTN infrastructure, with substantial efficiency gains.

Achieving more efficient investment in telecommunications infrastructure

Issues surrounding investment have been important in the debate about appropriate access pricing, with Telstra arguing that the absence of an ADC would provide it with insufficient incentive to maintain its investments in the PSTN. On the other hand, access seekers have argued that the inclusion of an ADC distorts the build-buy choice and inhibits complementary investments. These issues were considered at length in the price terms and conditions report.

Telstra has presented a series of arguments that removing the ADC:¹⁶⁷

... must erode Telstra's ability to maintain and renew its network.

Telstra claims that 'placing the entire burden of financing the CAN on Telstra' would undermine its ability to raise funds; encourage access seekers to rely on Telstra's facilities and increase regulatory risk. Telstra also argues¹⁶⁸ that the

... ACCC cannot determine what investment levels are appropriate, by whom and when. The ACCC plainly lacks information and capabilities any such decisions require.

While recognising there is clearly a position of informational asymmetry between itself and Telstra, it is apparent to the Commission that what information there is available does not point to an actual or imminent crisis in PSTN investment, and that no source outside of Telstra (other than its consultant, NECG) agrees with its pessimistic outlook. It should also be pointed out that Telstra has so far failed to answer the Commission's requests for information supporting its claims in its submission on the 9 January 2003 Undertaking¹⁶⁹ that it needs a much higher price for PSTN OT.

...in order ... to make an appropriate return on its current and future investments ...

The Commission believes that Telstra's investments in the PSTN are profitable, with rates of return well above Telstra's weighted average cost of capital (WACC) provide Telstra with the incentive to invest in the maintenance of the productive capacity of the PSTN. And the absence of a threat to investment is supported by all the empirical evidence, as reviewed in last year's indicative prices final report.

To the extent that there are concerns with the financial position of particular services, this would appear to overlook the fact that the entire PSTN is required to produce any particular call service. Thus, it would not seem to be prudent to abandon the entire PSTN just because one part of it was not (or not as) profitable as some other part(s). Only if the entire PSTN were in deficit would abandonment of it be a consideration. As the Productivity Commission¹⁷⁰ notes:

...access pricing is only one factor that shapes the returns to the investment made by access providers in telecommunications infrastructure.

¹⁶⁷ Telstra ADC submission, *op. cit.*, paragraphs 112-26.

¹⁶⁸ *Ibid*, para 126.

¹⁶⁹ Telstra, *Telstra's Submission in Support of its Undertakings dated 9 January 2003*.

¹⁷⁰ Productivity Commission, *Telecommunications Competition Regulation*, Report No. 16, 21 September 2001, p. 397.

The Commission also believes that the consideration of efficient investment must extend beyond Telstra to the impact on access seekers' investments; in particular, the effect of the ADC on the build/buy choice. In the Commission's view, for purposes of getting the right build/buy decisions, access seekers should be faced with an access price reflecting the TSLRIC+ of providing access on a forward-looking basis. This is the cost the access seeker would incur if it built its own network.¹⁷¹ Placing an ADC on top of this would appear to take the access price away from this ideal, providing an artificial stimulus to build rather than buy.

In summary, the Commission continues not to accept that there is any threat to Telstra's investments in the PSTN as a consequence of removing the ADC. Indeed, if anything, the stimulus to demand for profitable services from removing the ADC is likely to induce Telstra to increase its investments in the PSTN. The Commission would also expect that the efficiency of investments in downstream markets would also be enhanced.

Telstra's legitimate commercial interests

Under the relevant legislation, access pricing must have regard to Telstra's legitimate commercial interests, and this is interpreted by the Commission as allowing Telstra to cover its efficient costs from the totality of its retail and wholesale pricing, having regard to the ability to exploit economies of scale and scope. While acknowledging that removal of the ADC would reduce Telstra's revenues, the Commission's analysis at the time of the price terms and conditions report indicated that this could easily be absorbed because of Telstra's high economic profits from the PSTN.

There has been some disagreement over the extent of the financial impact of removing the ADC. In the ADC Discussion Paper, the Commission estimated that, given that the flow of traffic is relatively invariant with the prices charged, a change in the ADC of 0.1cpm fully passed on in retail prices would change Telstra's revenue by \$50 million¹⁷² and, therefore, that the complete removal of the ADC of 0.57cpm in 2001-02 would have reduced Telstra's revenues by a maximum of \$285 million.¹⁷³ However, reactions to the Discussion Paper and further analysis by the Commission suggest there is a degree of uncertainty about this estimate. On the one hand, JPMorgan¹⁷⁴ estimated a much smaller financial impact from removing the ADC. It claims that only a small part of any reduction in the ADC would be passed on in lower retail prices, with an estimated impact of complete removal on Telstra's revenues of \$80 million. On the other hand, Telstra has identified another possible source of loss that could make the impact much greater than estimated by the Commission, claiming the adverse impact on Telstra is underestimated by over 50 per

¹⁷¹ There will already be a disincentive to 'build' if the expected scale of the new network is less than that of the incumbent access provider.

¹⁷² The calculation at that time was based on an estimate of 50 billion non-local PSTN minutes. This was apparently an over-estimate and the Commission now believes the relevant number of minutes is 41 billion.

¹⁷³ The reduction in Telstra's revenue would be lower to the extent that quantities increased in response to the decrease in prices, i.e. demand was more elastic.

¹⁷⁴ JPMorgan, 'Telstra Corporation Ltd Still Some Residual Regulatory Risk for Telstra', Asia Pacific Equity Research, 11 April 2003.

cent.¹⁷⁵ In (confidential) Attachment 6, Telstra is concerned that the lower prices for PSTN OT could induce access seekers to offer local calls through combining PSTN origination and determination rather than through local carriage service.

Application of information from a variety of public and confidential sources¹⁷⁶ led the Commission to believe in 2003 that the PSTN generated economic profits well in excess of even the highest estimate of loss to Telstra were the ADC to be removed. Since then increases in line rentals have increased profitability, and reduced the AD. Retail price controls on calls were substantially eased beginning 2002-03. PSTN costs are also likely to have fallen, further increasing profits.

In summary, it is the Commission's view that the PSTN is highly-profitable, and that the economic profits flowing from the PSTN are more than sufficient to cover any financial loss flowing from removal of the ADC. The most recent data available following the Commission's indicative prices report confirms and reinforces that position.

The promotion of competition

Broadly, the Commission regards anything that promotes competition, everything else being equal, as enhancing the LTIE. The Commission's long held position is that the removal of the ADC would be consistent with the promotion of competition in the markets for national long-distance, fixed-to-mobile (FTM) and international calls. It has also held that the addition of an ADC is inconsistent with competitive neutrality between Telstra's downstream operations and access seekers supplying competing call products.

The current operation of the access regime has allowed entry into downstream markets for national long-distance calls, international calls and FTM calls. This entry has occurred in the context of Telstra enjoying large margins on these services. While these margins may have been reduced over time, they remain large, and their maintenance implies that Telstra has residual market power in providing these calls. This may stem from advantages of incumbency; its ability to bundle across all services and benefits from natural monopoly attributes (vertical economies) in downstream production components.

The Discussion Paper on the ADC raised the issue of 'competitive neutrality' and how this may be affected by the presence of an ADC. It was pointed out that it appears to be the case that Telstra does not apply an internal transfer pricing system, and that it is therefore incongruous for Telstra to appeal to 'competitive neutrality' with respect to its rivals. That is, if Telstra's downstream managers pay nothing for PSTN O/T when using it as a component in producing STD, IDD and FTM calls, increasing the access price to their rivals further above the direct costs of provision

¹⁷⁵ Telstra Corporation Ltd, *The Need for an Access Deficit Contribution for PSTN Access Service Pricing*, Telstra's Submission on the ACCC Discussion Paper, undated March 2003, para 84, p. 21.

¹⁷⁶ See, for example, Ovum, *Telstra Financial and Economic Profit Analysis: A Report to the ACCC*, 31 October 2001; Ziggy Switkowski, *Address to Australian Telecom's Telco Leaders Lecture Series*, Sydney, 26 November 2002; and Macquarie Research Equities, *Another Tough Year Ahead for Telcos*, 17 January 2003. The Commission has also done extensive research based on Telstra's RAF.

would only serve to increase the extent of non-neutrality that is inherent in the existing arrangements.

Telstra's submission on the ADC discussion paper¹⁷⁷ argued that the Commission's case based on the absence of internal transfer pricing 'seems plainly inconsistent with the economic notion of opportunity cost'. The Commission continues to believe that the opportunity cost argument is invalid and that the ADC cannot be competitively neutral.

Put simply, if the ADC were increased and this were fully reflected in retail prices, Telstra gains by the amount of the ADC increase per minute (across both wholesale and retail minutes) and the net position of access seekers is unchanged (higher access charge and higher retail prices negate each other). To the extent that any increase in the ADC is not passed through in retail prices, Telstra gains by the amount of the increase in the wholesale price while access seekers lose by the difference between the increase in the ADC and the increase in retail prices. Telstra gains in absolute and relative terms and access seekers lose – again it is not competitively neutral. Expressed differently, the ADC represents both direct and indirect revenue to Telstra, but it is a cost to access seekers. This fundamental asymmetry means it cannot be competitively neutral.

Conclusion

When viewed in the light of the evidence on the inefficient use of infrastructure; the non-attainment of an efficient build/buy choice; the adverse effects on competition and that it is unnecessary for the satisfaction of Telstra's legitimate commercial interests, the allowance of an ADC does not appear to the Commission to be in LTIE.

D.2. Telstra's comments on the draft view

The theoretical underpinning of the ADC is not an issue which impacts on the Commission's decision to accept the PSTN O/T undertaking; the issue was, however, discussed in the draft report as a matter of completeness. The discussion is continued here as Telstra and NECG have sought to keep the debate alive despite Telstra's letter which indicates that it will not seek an ADC beyond the current undertaking period. Broadly, Telstra's submission addresses two issues. First, Telstra and NECG provided material defending the calibrated model which it has used in the discussion of the ADC and second, Telstra and NECG discuss the efficiency of the ADC.

The Telstra/NECG model

As noted above, this model purports to show that the removal of the ADC will raise retail prices, increase access seeker (rival) profits, decrease Telstra profits and lead to a decrease in overall welfare.¹⁷⁸ While a complete discussion of the modelling is beyond the scope of this report and is difficult given the confidentiality of the material; the Commission reiterates its draft view that the modelling is deficient.

Fundamentally, the model which Telstra has chosen is not appropriate. Telstra and NECG make use of a competitive fringe model where Telstra's 'rivals' have upward

¹⁷⁷ Telstra, *The Need for an Access Deficit Contribution for PSTN Access Service Pricing*, Telstra's Submission on the ACCC Discussion Paper, undated March 2003, paras 129-35.

¹⁷⁸ Welfare is defined here as the sum of consumer and producer surplus.

sloping marginal cost and are perfect price takers.¹⁷⁹ Equilibrium in this model implies that the marginal cost of rivals must be at or above those of Telstra.¹⁸⁰ Under these circumstances the introduction of an ADC acts to tax the inefficient competitive fringe. In effect, the ADC acts as a Pigouvian tax, reducing the distortion associated with inefficient production by Telstra's rivals. The Commission does not accept that rivals are less efficient than Telstra and suggests that substantial cost modelling would be required to substantiate such a claim. Without any such modelling the welfare outcomes resulting from Telstra's model are not robust to a change in this assumption and are therefore unacceptable.¹⁸¹

¹⁷⁹ NECG states that the Commission suggested that the particular model be used. This statement, however, relies on a mistaken meaning of the term 'dominant'. The model used has two names in the economic literature: the 'competitive fringe model' and the 'dominant firm' model. NECG claims that, as the Commission has referred to Telstra as 'dominant' in some of its previous analyses, it must have had the 'dominant firm model' (DFM) in mind. This is not the case. The DFM gives a particular form to the ordinary meaning of the word dominant. Specifically, it interprets dominance to mean that Telstra is a price leader, that all other firms are price takers and that all rival firms have upward sloping marginal cost curves. Clearly the Commission could have had any number of other specifications in mind when referring to Telstra as dominant in telecommunications markets. For example, Telstra seems to dominate because of issues such as switching costs, the ability to bundle, public brand perception and the potential for it to 'sabotage' its rivals. It is these ideas rather than the particular DFM that the Commission has in mind when referring to Telstra as dominant. For NECG's comments see, NECG, *Annexure A to Telstra's Submission in Response to the Draft Decision on its Undertakings for PSTN OTA, LCS and ULLS Dated October 2004*, November 2004, p. 26.

¹⁸⁰ NECG has made representations to the Commission that this is not the case. The Commission, however, does not accept this. As the fringe always supplies at marginal cost the fringe can only be more efficient than Telstra if the price charged is below Telstra's marginal cost. If this were the case, Telstra would not supply in the retail market as it would make a short-run loss on *all* units. This is not an accurate representation of reality and is not the outcome of the model as presented by Telstra and NECG. In annexure A to Telstra's response to the draft report (*ibid*, p. 26.) NECG claims that 'fringe firms may have lower marginal costs at equilibrium, but may face capacity constraints or otherwise face increasing marginal costs with output expansion, in which case the incumbent's output would not be zero.' This argument is clearly false. Either there is an equilibrium which is determined by the conditions which are stated by NECG and Telstra in the original model, or there is not. Any such equilibrium would not include capacity constraints because they were not part of the original mode. If NECG wishes to examine an equilibrium that is characterised by capacity constraints then the industry should be modelled as such and different assumptions would need to be made to 'back out' the rival's marginal costs from the model. As no such attempt is made, the Commission's criticism stands. Within the model provided by Telstra and NECG it is impossible to have an equilibrium where Telstra is less efficient than its rivals.

¹⁸¹ In, NECG, *Response to Gans' Submission "Reducing PSTN Interconnection Charges will Lower Retail Telecommunications Prices" – Report Prepared for Telstra*, March 2004, attachment D, NECG provides an alternate 'Cournot' model of competition. Using this model NECG purports to show that the conclusion that welfare will be lost if the ADC is removed is robust to the change in model specification. To do this NECG again calibrates the model. To do this NECG 'backs out' the costs of rival firms from an in equilibrium homogenous goods Cournot model. In such a model a firm will only have a lower market share if it has a higher marginal production cost. Because Telstra's rivals have a lower market share in reality, NECG concludes that rivals have higher costs. From this base, NECG *again* shows that using the ADC to tax the production of inefficient rivals will result in a welfare gain. As before the ADC is effectively used as a Pigouvian tax. The result, however, only occurs because the rivals have higher costs, and the rivals have higher costs because the model can only explain low market share on the basis of high costs. There are, however, many reasons why rivals have lower market share. Most obviously the market is not yet in equilibrium because consumers are still moving over to rivals. Further, switching costs, a status quo bias, the

Notwithstanding that the model is incorrectly specified, and therefore cannot be used to make welfare comparisons, the model may provide some valuable information about price changes. NECG and Telstra, however, do not appropriately calibrate the model. Specifically, as pointed out by Joshua Gans (on behalf of AAPT) Telstra purports to estimate a linear demand curve but in fact allows the curve to pivot when the ADC is removed.¹⁸² The effect of this assumption is that removing the ADC leads to an *increase* in the production costs of the rivals which in turn leads to an increase in the retail price – for a limited range of model parameters. There is no *a priori* reason to accept that this would occur and the Commission does not accept it as representative of reality. The result that the downstream price will increase cannot, therefore, be accepted.

Finally, the econometric evidence is insufficiently reported and little weight can be put on it. NECG states that it is ‘...incorrect [to presume] that retail prices will necessarily rise in the model as a result of removing the ADC. Rather, as in any model, the retail price impacts depend on the parameter values.’¹⁸³ This statement needs careful interpretation – the modern push toward robust (or monotone) comparative statics states that the role of economic analysis is to determine for which exact parameter values the results presented will hold.¹⁸⁴ No attempt is made in this direction by NECG. Rather NECG creates a model and shows that, for a highly specific set of parameters, the results which it claims will hold. Such a construction places a great deal of pressure on the particular parameter values that are used. NECG and Telstra therefore bear a heavy onus to show that the parameters, which are derived through their econometric evidence, are particularly robust. The econometric analysis presented by Telstra and NECG does *not* meet this onus.

Specifically Telstra/NECG has *not*:

- provided a good description of the underlying data that has been used;¹⁸⁵
- provided the data in order to enable the replication of their results;¹⁸⁶
- reported the p-statistics that lead to the rejection of specific variables;
- reported on whether they have taken any steps to de-trend the data;¹⁸⁷

inability of rivals to bundle and the possibility of sabotage all mean that rivals may have the same or lower costs but smaller market share. Therefore, NECG’s model is *again* unable to provide a reasonable estimation of reality and its results cannot be accepted unless NECG can show that rivals do *in fact* have higher marginal costs than Telstra.

¹⁸² In fact, as shown by Gans (equation 17) it is not possible, within the linear model, that the downstream price of minutes will rise with the removal of the ADC. See J. Gans, ‘*Reducing PSTN Interconnection Charges Will Lower Retail Telecommunications Prices: A Response to Telstra’s Submission*’, confidential report on behalf of AAPT Ltd, CoRE Research, 27 June 2003, p. 15.

¹⁸³ NECG, *Annexure A To Telstra’s Submission in Response to the Draft Decision on Its Undertakings for PSTN OTA, LCS and ULLS dated October 2004*, November 2004, p. 27.

¹⁸⁴ See, for example, Susan Athey, Paul Milgrom and John Roberts, *Robust Comparative Statics*, forthcoming, Princeton University Press.

¹⁸⁵ There is no description either of the price and quantity data or the non-price data that are used.

¹⁸⁶ It is now common practice in econometric analyses to provide all data to enable the replication of results. For example, all Harvard econometrics Professors have data for their work available in electronic form on their website. It would be necessary to have these data to check the validity of Telstra’s method.

- reported on whether there is heteroskedasticity in the data;¹⁸⁸
- reported on the presence of auto-correlation nor stated whether they have taken any steps to correct for auto-correlation;¹⁸⁹
- described in detail the method by which they implement the ADF test;¹⁹⁰
- provided any discussion of which variables have been included in the final regression. This is a particular concern, as with so few observations and at least 14 variables presented, the regression will have very few degrees of freedom; or
- provided a description of the methodology used to aggregate the data.¹⁹¹

This last point is of particular relevance as it is not readily apparent that prices for all services will rise uniformly. NECG's claim¹⁹² that the Commission has not requested any of this information is incorrect. The Commission submitted a series of questions relating to the econometric analysis in April 2003, and as a consequence received some further limited information. Further; in a meeting with Telstra and NECG on 12 May 2003 the Commission requested further information regarding this econometric evidence. No information has been forthcoming to this date.

Perhaps most importantly, all information relating to the model and the debate surrounding it has been kept confidential by Telstra. The information has therefore only been available to a privileged few who have deemed the matter of such importance that they are willing to enter in to a confidentiality agreement with Telstra. The effect of this confidentiality is two fold. Firstly, the confidentiality requirement reduces the number of people with access to the material and therefore the ability of interested parties to comment constructively on the material. Further, it increases the cost of rigorous assessment of the material. For example, had the Commission decided to engage an econometrician to assess the material, the Commission would

¹⁸⁷ It is likely that there is a background trend for both price and quantity of minutes to be increasing.

¹⁸⁸ There may be reason to believe that the standard errors are changing over time due, for instance, to the business cycle or due to season factors, which may lead to more deviation from the mean. If there is heteroskedasticity then the assumptions of the classical liner regression model are breached.

¹⁸⁹ Again if there is auto-correlation that is not corrected then there is a breach of the assumptions of the classical linear regression model.

¹⁹⁰ In relation to the ADF test there are many gaps in reporting (although it is noted that a recent statistical package will correct for some of these errors, Telstra/NECG does not report what package was used or how it was set up). It is not clear whether NECG/Telstra included or did not include constant or trend terms. It is commonly noted that ADF tests lack significant 'power' especially when there are a small number of observations (as in Telstra's model) see, W Enders, *Applied Econometric Time Series*, Wiley New York, 1995, pp. 251-254. In a case such as this where, despite the ADF results, it seems intuitive that the data will be non-stationary; it would have been open to Telstra/NECG to take a different testing strategy using a dynamic error correction model (ECM). Such an approach would have increased the robustness of the results and the weight that the Commission was able to put on them.

¹⁹¹ At the very least this aggregation will reduce the efficiency of the test which could be increased by running disaggregated regressions.

¹⁹² NECG, *Annexure A To Telstra's Submission in Response to the Draft Decision on Its Undertakings for PSTN OTA, LCS and ULLS dated October 2004*, November 2004, p. 27.

have had to bear the additional expense of that expert meeting Telstra's confidentiality requirements and there would, even then, be no guarantee that the necessary information would have been forthcoming from Telstra. The ability of interested parties to assess the evidence is therefore inadequate.¹⁹³ Secondly, the confidentiality of the model means that Telstra is able to refer to the results in the non-confidential sections of its reports, without allowing interested parties the opportunity to confirm the results themselves. This is clearly an unacceptable way to carry on a public debate.

The Commission's view is that, where a party seeks to rely on complicated economic evidence, there is an onus on that party to show the robustness and reasonableness of that evidence. This is particularly true where, like this model, the analysis arrives at counterintuitive results. Discharging this onus requires, at a minimum, that the party provide *all* information that is required in a timely manner, that the model be open to general public debate and not kept in confidence and that the model be robust to a range of different specifications. Finally, it is not sound professional practice to refer continually, in public documents, to complicated economic evidence that is not open to public scrutiny.

Efficiency of the ADC

NECG and Telstra provide a series of simple examples with the aim of showing that access prices that do not include an ADC cannot be 'strongly competitively neutral'.¹⁹⁴ The Commission disputes the emphasis that is placed on competitive neutrality by NECG but, notwithstanding this, the examples are not persuasive because it is, in general, possible to create an example to show almost anything. The following is an example, based on NECG's own work, which shows the inefficiency of the ADC.

A monopolist builds a stadium at a cost of \$50. There are 50 people in the town in which the stadium stands, all of whom will watch exactly one game. The government of this town sets a maximum price for tickets of \$0.60. The monopolist therefore has a Ticket Deficit (TDC) of \$20. In addition to tickets, the monopolist also sells beer and provides a corporate box for interstate visitors. Both have a marginal cost of \$0 and the monopolist sells them at prices of \$1 and \$20 respectively.¹⁹⁵ Every normal ticket holder buys a beer and one box is sold for the game. The monopolist clearly makes a profit out of the stadium (\$50 to be exact), and this profit is *directly* related to its ownership of the essential facility – the stadium.

Unhappy with this monopoly profit, a regulator institutes an access regime for beer. A competitor can buy beer from the monopolist and resell it in the stadium. There are two ways in which this may be priced. Case one; the monopolist is able to levy Ticket Deficit Contribution (TDC) of \$0.40 per beer. Case two; access to beer is priced at cost (\$0). Assume, for the purposes of this example, that there is Bertrand competition in the beer market. In case one the monopolist will make a profit of \$0.40 on each beer (for a total of \$20) and also retains all of the profit from the

¹⁹³ Similar issues arise in relation to the PIE II model. See section C.1.

¹⁹⁴ NECG concedes that they will be weakly competitively neutral which is interpreted to mean that the most efficient supplier will be victorious in 'winner takes all competition'.

¹⁹⁵ As with NECG's example there is no clear underlying specification of either demand or profit in this example.

corporate box (\$20) for a total of \$20 profit. The access seeker on the other hand earns \$0. In such a case, the access seeker would prefer to be the access provider, because it is the ownership of the stadium that enables the access provider to gain the \$20 in profit from the box.¹⁹⁶ This arrangement is therefore not strongly competitively neutral based on NECG's definition which requires indifference between being an access seeker and access provider. In case two competition leads to a price of beer of \$0 and the owner of the stadium makes a profit of \$0 – the competitive profit level – while the access seeker also earns \$0.

In case two, the financial markets will continue to fund the monopolist's investment in the stadium because it is this investment that allows the sale of the corporate box and the subsequent competitive profit.¹⁹⁷ There is strong competitive neutrality in the NECG sense because the access seeker and access provider are indifferent between the roles that they take. Further, consumer surplus is increased and this is in the interests of the community.¹⁹⁸ Finally, the prices are 'subsidy-free' in that all the services provided cover their incremental costs.

The point of this example is that the profits that accrue to the monopolist from the corporate box arise *as a result* of the ownership of the essential facility. There are many reasons why a monopolist may gain such extra profits despite an access regime on some services. These include *inter alia*, the costs of switching, imperfect contracting, reputation effects, community perception, the potential for sabotage¹⁹⁹ and, as in the case of the corporate box; an unchecked monopoly. The ownership of an essential facility gives rise to a number of streams of profit rather than simply the profit from ticket sales.²⁰⁰ It could, of course, be argued that it is a coincidence, in this example, that the profit from the box exactly offsets the Ticket Deficit. However, returning to the reality of Australian telecommunications, the Commission has undertaken analysis which suggests that the profits which Telstra makes on services which rely on its local access monopoly more than offset the access deficit.²⁰¹ The

¹⁹⁶ This example differs from the 'pie' example in NECG's paper in that the corporate box is part and parcel of the ownership of the stadium. In the 'pie' example used by NECG the source of the monopoly profits on pies is a patent and it not related to the ownership of the stadium.

¹⁹⁷ Further, there will be no chance that the financial markets will prefer to fund an independent box supplier, because that supplier would not be able to build a box in the stadium. Therefore funding the box requires the investor to fund *the entire firm*.

¹⁹⁸ Given the inelastic demand formulation used by NECG this consumer surplus is a direct transfer from the monopolist to the consumer. This will not generally be the case, however, it seems likely that any government would prefer this outcome to the monopoly profit outcome.

¹⁹⁹ See, for example, David Mandy, 'Killing the Goose that Laid the Golden Egg: Only the Data Knows Whether Sabotage Pays', *Journal of Regulatory Economics*, 17, 2000, pp.152-172.

²⁰⁰ It should be noted in this context that the financial markets which determine investment in the incumbent are interested in the company as a whole. This is because it is not possible to purchase shares in just one part of the incumbent (Telstra as a whole). Therefore investment will occur so long as that investment leads, directly or indirectly, to a reasonable rate of return on capital given the overall risk profile of the company. In the case of Telstra, the ownership of the CAN gives rise to a number of sources of competitive advantage and increased profit, not just the revenue from basic access. Investment in the CAN will continue to be financed so long as there is a profit on all those services which benefit from CAN ownership.

²⁰¹ For a discussion see, ACCC, *Final Determinations for Model Price Terms and Conditions of the PSTN, ULLS and LCS Services*, October 2003, Ch. 8.

Commission therefore reiterates that there is no longer a compelling case for the inclusion of an access deficit contribution.

This example does not claim to be an accurate representation of reality, but rather is used to show the potential for a strongly competitively-neutral price with no ADC. Again, as with the formal model, NECG's examples are not persuasive because they lack robustness. It is not clear when they will or will not apply and no attempt is made to identify the critical conditions. The Commission, on the other hand has undertaken analysis, as outlined in the Model Price determination, and weighed up the various statutory criteria to arrive at a decision that an ADC is not reasonable. This conclusion cannot be altered through the provision of a simple example which shows that, in very specific surreal circumstances, the ADC is not competitively neutral.

Commission's final view

The submissions provided by Telstra and NECG have not altered the Commission's view as it was stated in the Draft Report and reproduced above. To reiterate, the Commission believes that the levying of an ADC will lead to higher retail price and a loss in welfare. The removal of the ADC will remove part of the distortion to downstream prices and will be in the interests of end users. Further, the Commission expects that this issue will not arise in future access matters given Telstra's undertaking not to request an ADC beyond this undertaking period.

Appendix E. Submissions to Core undertakings

- (1) confidentiality claim made over part(s) of the submission
- (2) confidentiality claim made over the entire submission
- (3) response to a s152BT request for further information

E.1.1. AAPT Ltd

Submissions on the 14 November 2003 Undertakings

AAPT Ltd, *Submission by AAPT to the Australian Competition and Consumer Commission in Response to Telstra's Core Services Undertaking dated 14 November, 2003, 15 March 2004.*

AAPT Ltd, *Telstra's Undertakings for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service—Submission to the ACCC by AAPT Ltd, August 2003, (2).*

Submissions on model price terms and conditions for the core services

AAPT Ltd, *AAPT's submission to ACCC Future Access pricing approaches for PSTN, ULL & LCS: Submission by AAPT to the ACCC Discussion Paper September 2003, – undated.*

AAPT Ltd, *The Need For an Access Deficit Contribution for PSTN Access Service Pricing: Submission to the ACCC by AAPT, February 2003.*

AAPT, *Model Price Terms and Conditions for PSTN, ULLS and LCS: Submission to the ACCC by AAPT, April 2003.*

AAPT Ltd, *Draft Determination for Model Price Terms and Conditions of the PSTN ULLS and LCS Services: Submission to the ACCC by AAPT Limited, 23 July 2003.*

Gans, Joshua (CoRE Research), *Reducing PSTN Interconnection Charges Will Lower Retail Telecommunications Prices: A Response to Telstra's Submission - A Report on Behalf of AAPT Ltd, 27 June 2003, (2).*

Submissions on the 9 January 2003 Undertakings

AAPT Ltd, *ACCC Draft Determination For Model Price Terms and Conditions of the PSTN, ULLS and LCS Services and ACCC Discussion Paper on Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service – Access Deficit Contribution Aspects, 9 July 2003 (1).*

CoRE Research, *Evaluating Telstra's Undertakings for CAN Cost Recovery - A Report on Behalf of AAPT Ltd, 25 June 2003.*

CoRE Research, *Competitive Neutrality in Interconnection Pricing - A Report on Behalf of AAPT Ltd, 25 June 2003.*

CoRE Research, *Comparing TSLRIC and TELRIC: A Report on Behalf of AAPT Ltd, 23 July 2003.*

Submissions on the October 2004 Draft Assessment

AAPT Ltd, *Submission to the Australian Competition and Consumer Commission Assessment of Telstra's undertakings For PSTN, ULLS and LCS Draft Decision October 2004*, 10 November 2004.

E.1.2. Australian Telecommunications Users Group (ATUG)

Submissions on model price terms and conditions for the core services

ATUG, *The Need for an ADC for PSTN Access Service Pricing Discussion Paper February 2003*, undated.

ATUG, *Model Price terms and conditions for PSTN OTA, ULLS and LCS – Discussion Paper April 2003*, 9 May 2003.

E.1.3. Comindico

Submissions on model price terms and conditions for the core services

Comindico, *Submission on the Need for an Access Deficit Charge PSTN Access Service Pricing*, March 2003.

E.1.4. Communications Expert Group (CEG)

Submissions on the 14 November 2003 Undertakings

Communications Expert Group, *Assessment of Telstra's Core Services Undertakings*, 24 March 2004 (1).

E.1.5. Competitive Carriers Coalition (CCC)

Submissions on the 14 November 2003 Undertakings

Competitive Carriers' Coalition, *Telstra Undertakings – PSTN OA, ULLS and LCS Services dated November 2003 Competitive Carriers' Coalition (CCC) Submission*, 15 March 2004.

Submissions on the 9 January 2003 Undertakings

Competitive Carriers' Coalition, *Telstra Undertakings – PSTN OA, ULLS and LCS Services dated January 2003 - Competitive Carriers' Coalition (CCC) Submission*, 29 July 2003.

Gilbert and Tobin (for CCC), *Telstra Undertakings for PSTN Originating and Terminating Access, ULLSs and LCS Services dated January 2003*, August 2003 (2).

Gibson and Quai (for CCC), *Competitive Carrier Coalition Technical Expert Report on Telstra's Undertakings to the ACCC*, August 2003, (2).

Access Economics (for CCC), *The Economic Content of PIE II - Report by Access Economics*, 22 July 2003 (2).

Submissions on the October 2004 Draft Assessment

Competitive Carrier's Coalition, *Response to the ACCC Core Services Undertakings Draft Decision*, 29 November 2004.

E.1.6. CoRE Research

Submissions on model price terms and conditions for the core services

CoRE Research, *The Access deficit Contribution for PSTN Interconnection Pricing: A Submission to the Australian Competition and Consumer Commission*, 26 February 2003.

E.1.7. Macquarie Corporate Telecommunications (MCT)

Submissions on the 14 November 2003 Undertakings

Macquarie Corporate Telecommunications, *Submission to Australian Competition & Consumer Commission on Telstra Access Undertaking – PSTN OA, ULLS and LCS Services*, 23 March 2004 (1).

Submissions on model price terms and conditions for the core services

Macquarie Corporate Telecommunications, *Future Access Pricing for PSTN, ULLS and LCS: Submission by Macquarie Corporate Telecommunications*, October 2002.

Macquarie Corporate Telecommunications, *Submission in Response to the ACCC Discussion Paper on the Need for PSTN Access Service Pricing*, February 2003.

Macquarie Corporate Telecommunications, *Response to the Discussion Paper – Model Price Terms and Conditions for PSTN, ULLS and LCS*, 30 April 2003.

E.1.8. Optus

Submissions on the 14 November 2003 Undertakings

Optus, *Optus Submission to Australian Competition and Consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, March 2004 (1).

n/e/r/a, *Comments on PSTN conveyance costs in PIE II: A Report for Singtel Optus*, March 2004 (2).

Optus, *Optus Submission to Australian Competition and Consumer Commission on Rural PSTN Costs in Telstra's Undertakings*, March 2004 (2).

Optus, *Optus Submission to Australian Competition and Consumer Commission on LCS Undertaking Price is Anti-Competitive*, March 2004 (2).

Submissions on model price terms and conditions for the core services

Optus, *Optus submission on future access pricing approaches for PSTN, ULLS and LCS*, 31 January 2003.

Optus, *Optus Submission to the ACCC on the Access deficit for PSTN Originating Terminating Access*, February 2003.

n/e/r/a, *Appropriate Measurement (and recovery) of the Access Deficit - a Report for Optus*, March 2003.

Optus, *Optus Submission to Australian Competition and Consumer Commission on Model Price terms and conditions for PSTN OTA, ULLS and LCS*, May 2003.

Optus, *Model Price Terms and Conditions for PSTN, LCS and ULLS*, 31 July 2003.

n/e/r/a, *Competitive Neutrality in Access Pricing - a Report for Optus*, July 2003.

Submissions on the 9 January 2003 Undertakings

Optus, *Optus Submission to Australian Competition and Consumer Commission Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, August 2003.

n/e/r/a, *Estimating Telstra's Avoidable Retail Costs for Local Calls and basic Access - A Report for Optus*, August 2003 (2).

n/e/r/a, *Role of TSLRIC in Telecommunications Regulation - A Report for Optus*, July 2003 (2); and

n/e/r/a, *Assessment of PIE – II Model - A Report for Optus*, July 2003 (2).

Submissions on the October 2004 Draft Assessment

Optus, *Optus Submission to The Australian Competition and Consumer Commission on Draft Decision on Telstra's Undertakings for PSTN, ULLS and LCS*, November 2004.

E.1.9. PowerTel

Submissions on the 14 November 2003 Undertakings

Powertel, *Telstra's Access Undertakings for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, dated 14 November 2003: Submission by PowerTel Ltd*, undated (1).

Submissions on model price terms and conditions for the core services

PowerTel *The Need for an ADC for PSTN Access Service Pricing: Submission by Powertel Limited*, undated.

PowerTel, *Model Price terms and Conditions for PSTN OTA, ULLS and LCS: Submission by Powertel Limited*, undated.

PowerTel, *Draft Determination for Model Price Terms and Conditions of the PSTN , ULLS and LCS Services: Submission by Powertel Limited*, undated.

Submissions on the 9 January 2003 Undertakings

PowerTel, *Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service – Submission by Powertel Limited*, undated (2).

E.1.10. Primus Telecommunications

Submissions on model price terms and conditions for the core services

Primus, *Future Access Pricing Approaches for PSTN, ULLS and LCS ACCC Discussion Paper – September 2003: Primus Submission*, October 2003.

Primus, *ACCC Review of Access Deficit*, 27 March 2003.

Primus, *Model Price terms and Conditions for PSTN OTA, ULLS and LCS ACCC Discussion Paper – April 2003: Primus Submission*, April 2003.

E.1.11.Telstra

Submissions on the 14 November 2003 Undertakings

Telstra Ltd, *Telstra's Letter to Ed Willett Concerning Commitments In Relation to Access Deficit Contribution*, 14 November 2003.

Telstra LTD, *Telstra's Submission in Support of its Undertakings dated 14 November 2003*, undated (1).

Telstra Ltd, *Telstra's Further Submission in Support of its Undertaking dated 14 November 2003*, 2 December 2003,(1)

Telstra Ltd, *Telstra's Supplementary Submission in Support of its Undertakings dated 14 November 2003*, 15 March 2004 (1).

NECG, *Response to Gans' Submission "Reducing PSTN Interconnection Charges Will Lower Retail Telecommunications Prices" – Report Prepared for Telstra*, March 2004.

Telstra Ltd, *Letter Regarding Telstra's Undertakings in Relation to PSTN OTA, LCS and ULLS dated 14 November 2004, Provided in response to the Commission's Letter of 4 February*, 26 February 2004 (2)

Telstra Ltd, *Telstra's Response to the Australian Competition and Consumer Commission's Section 152BT Information Request, Dated 12 March 2004*, 23 April 2004 (2)(3).

Telstra Ltd, *Preliminary Response to s.152BT Request Dated 27 May 2004*, 4 June 2004.

Telstra Ltd, *Telstra's Response to the Australian Competition and Consumer Commission's Section 152BT Information Request, Dated 2 May 2004*, 10 June 2004 (2)(3)

Telstra Ltd, *Telstra's Response to CEG's Submission to the Commission Entitled 'Assessment of Telstra's cores services undertakings, dated 14 March 2004'*, August 2004 (2)

Telstra Ltd, *Telstra's Response to PowerTel's Submission to the Commission on PSTN OTA, ULLS and LCS*, August 2004 (2).

Telstra Ltd, *Telstra's Response to Macquarie Corporate Telecommunication's Submission to the Commission on Telstra's Undertakings for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service*, August 2004 (2).

Telstra Ltd, *Telstra's Response to Optus' Submission to the Commission on Telstra's Undertakings for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop and Local Carriage Service*, 25 June 2004 (2).

Telstra Ltd, *Telstra's Submission in Relation to the Commission's Methodology of Converting PSTN OTA Disaggregated Rates into Headline Rates*, 9 September 2004.

Telstra Ltd, *Telstra's Submission on Call Holding Time Issues*, 12 August 2004.

Telstra Ltd, *Letter Regarding Access Undertakings for PSTN OTA, ULLS and LCS dated 14 November 2003, ("The Undertakings")*, 24 August 2004.

Telstra Ltd. *Telstra's Submission on the Inclusion of Capped Local Call Termination Traffic*, 22 September 2004.

Submissions on model price terms and conditions for the core services

Telstra Ltd, *Submission in Response to the Discussion Paper on Future Access Pricing Approaches for PSTN OTA, ULLS and LCS*, undated.

Telstra Ltd, *The Need for an Access Deficit Contribution for PSTN Access Service Pricing: Telstra's Submission on the ACCC Discussion Paper*, undated (1).

Telstra Ltd, *Submission in Response to the Discussion Paper on Model Price Terms and Conditions for PSTN OTA, ULLS and LCS*, 2 May 2003.

Telstra Ltd. *Submission on the Draft Determination for Model Price terms and Conditions of the PSTN, ULLS and LCS Services*, 31 July 2003 (1).

Submissions on the 9 January 2003 Undertakings

Telstra Ltd, *Telstra's Submission in Support of its Undertakings dated 9 January 2003*, undated.

Telstra Ltd, *Telstra's Detailed Submission in Support of its Undertakings dated 9 January 2003*, 31 July 2003 (1).

Telstra Ltd, *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings dated 9 January 2003*, 13 February 2003 (1).

Submissions on the October Draft Assessment

Telstra Ltd, *Submission Relating to PSTN OTA and LCS in Response to the Draft Decision on Telstra's Undertakings for PSTN, ULLS and LCS dated October 2004*, 29 November 2004.