



**Draft Determination for model price terms and
conditions of the PSTN, ULLS and LCS services**

June 2003

Abbreviations

ACA	Australian Communications Authority
ACCC	Australian Competition and Consumer Commission
AD	Access deficit
ADC	Access deficit contribution
CAN	Customer access network
CAM	Customer access module
CBD	Central business district
C-MUX	Customer multiplexer
DCITA	Department of Communication, Information Technology and the Arts
FDC	Fully distributed cost
FTM	Fixed to mobile
IDD	International direct dial
ISDN	Integrated services digital network
LAN	Local area network
LAS	Local access switch
LCS	Local carriage service
LTIE	Long-term interest of end users
MTF	Mobile to fixed
NECG	Network Economics Consulting Group
PC	Productivity Commission
PIE	PSTN Ingress Egress
PSTN	Public switched telephone network
PSTN O/T	Public switched telephone network Originating/Terminating

RAF	Regulatory accounting framework
RIM	Remote integrated multiplexers
RSU/RSS	Remote switching units or stages
STD	Subscriber trunk dialling
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 cost plus ADC
ULLS	Unconditioned local loop service
USO	Universal service obligation
WACC	Weighted average cost of capital

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1 Executive summary

Following amendments to the Trade Practices Act in December 2002, section 152AQB requires the Commission to make a written Determination setting out model terms and conditions, including prices, relating to access to each core telecommunications service ('core service'). The applicable core services are:

- the Domestic Public Switched Telephone Network Originating and Terminating ('PSTN O/T') Access Service;
- the Unconditioned Local Loop Service ('ULLS');
- the Local Carriage Service ('LCS'); and
- any additional core service specified in regulations by the Minister.

These services are the main fixed-line network interconnect or access services (or, in the case of LCS, wholesale services) which competitors need in order to compete with Telstra for a variety of retail services, such as local, long-distance, international, fixed-to-mobile and various high-speed data services. Access to these core services is also where the main area of disputation about access services in the industry has occurred.

A Determination will remain in force for a period of 5 years, unless sooner revoked. The Commission is required to have regard to the Determination if it is required to arbitrate an access dispute in relation to a core service covered by the Determination. The Determination will also be relevant to the Commission's assessment of access undertakings relating to a core service.

The model terms and conditions are non-binding. However, if a dispute about terms and conditions of access arises between parties, the Commission arbitration Determination is expected reflect the model terms and conditions.¹

The principal purpose of the model or indicative prices is to provide clear guidance about the Commission's views as to what constitute fair terms and conditions of access to these services. Parties will have an indication of the likely outcome of a particular issue, thereby encouraging them to reach commercial agreement on access or consider submitting an access undertaking.

This means these model prices should be assessed in terms of the same long-term interest of end-user ('LTIE') and reasonableness criteria under Part XIC that is applicable to the Commission's undertaking and arbitration decisions.

The Commission has previously set out its views on model price terms and conditions for each of the core services, PSTN O/T², ULLS³ and LCS⁴. Notwithstanding this

¹ Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), p. 32.

previous work, as part of its current consideration of model price terms and conditions, there have been a number of issues that have been raised which have required the Commission to review or revise its previous approach.

1.1 Pricing of core services

The Commission has essentially confirmed its previous views on the pricing principles that should apply to each of these services. This means in relation to the PSTN O/T services and ULLS, an economic cost approach as reflected in a total service long-run incremental cost ('TSLRIC') framework would be applied. In relation to LCS, a retail-minus approach would apply, at least while the TSLRIC-based cost of a local call is above that of prevailing retail prices, given certain retail price constraints.

The Commission notes, however, that in forming its indicative views on appropriate prices for PSTN O/T services in particular, there is also an opportunity to take a different stance on how access prices should be varied over time to ensure they reflect efficient (TSLRIC-based) costs. The Commission has been particularly concerned to ensure cost-reflective prices are set, as this best promotes competition and efficient supply outcomes, including efficient investment decisions.

In this regard, the acceptance of an access deficit contribution ('ADC'), to account for the gap between line costs and line revenues for Telstra's basic access services, is increasingly seen by the Commission as a significant distortion to competitive and efficient outcomes which should be removed from access prices as soon as practicable. Such a change would reduce PSTN O/T access prices by more than half as compared to existing commercially negotiated levels.

The Commission considers, however, that there are sound reasons why this should not occur immediately. A reasonable time-frame over which the ADC is completely removed would be appropriate to avoid any unexpected regulatory changes which may give rise to the perception of higher regulatory risk in the short-term and undermine a stable regulatory environment. For example, while the removal of the ADC is not seen as particularly significant for efficient investment decisions in the abstract (see Chapter 8) it is also true that Telstra's business plans and other decisions in recent years have been made on the basis of the Commission's current regulatory approach, under which the ADC forms nearly half of the PSTN charge. A more gradual removal of the ADC would also have regard to access prices currently negotiated in the market with access seekers which incorporate an ADC. Such agreements are in place in some cases to 2005.

² In May 2001, the Commission announced its provisional headline rate for 2001-02 for domestic PSTN originating and terminating access on Telstra's network.

³ See ACCC, *Pricing of Unconditioned Local Loop services (ULLS) – Final Report*, May 2002.

⁴ See ACCC, *Local Carriage Service Pricing Principles and Indicative Prices – Final Report (Revised)*, April 2002.

It should be noted that the prime issue is the removal of the ADC without particular regard to whether the AD can also be removed at the same time, given that there seems little compelling reason to support an ADC as a matter of principle, which is keeping access rates high. The timing of the phase-out period, however, would be informed by other factors, such as the objectives of the current price cap regime to enable Telstra to rebalance sufficiently its line charges towards costs and thereby remove the AD. It happens to also align with a phase-out period that would result with a redefined AD. This would suggest a phase-out period to the end of 2005-06.

It should also be noted that Telstra initiated discussions with the Commission concerning the possibility of lodging new and revised access undertakings for core services. This occurred after it became apparent that Telstra's current set of proposed undertakings were likely to be above the range of access prices deemed as reasonable by the Commission, given its current pricing approach. As part of these discussions, it was contemplated that should Telstra make certain commitments regarding the removal of the ADC in PSTN O/T access prices within a specified period, a revised glide-path for PSTN O/T access prices, from that previously proposed, which provides for a clear reduction to such rates would be considered.

It is also the case that the maintenance of the current ADC approach would mean a somewhat lower PSTN rate in the initial periods than the glide-path proposed in this determination. However, the maintenance of the current ADC approach would see the continuation of the ADC for a longer period (see sections 8.7, 8.8 and section 9 below).

This more gradual removal of the ADC would therefore only be likely to be in the long-term interests of end users where it was clear that Telstra would not seek to make any claim for an ADC in PSTN O/T access charges from competitors beyond a certain period. This is proposed as 2005-06, regardless of whether an access deficit was still evident or not at that time. In the event that no such commitment is provided, the Commission would need to reconsider its approach.

1.1.1 Draft model access prices for PSTN O/T services

Accordingly, the Commission considers that a significant reduction to PSTN O/T access prices over the next three years, compared to existing rates, together with a clear commitment that Telstra will not seek to impose an ADC in PSTN O/T charges *beyond* a certain period (2005-06) may be consistent with the relevant statutory criteria. In these circumstances, the Commission would be prepared to countenance the following range in PSTN charges from next financial year, 2003-04.

Table 1.1: Model access prices for PSTN O/T services (cpm)

Year	Model access price
2003-04	1.2 – 1.25
2004-05	1.1 – 1.15
2005-06	0.9 – 1.0

This would mean that by 2006-07, PSTN O/T access prices should be based solely on TSLRIC or conveyance costs and would be expected to be well below 1.0 cent per minute, on the basis of current and relatively stable traffic volumes over this period.

1.1.2 Draft model access prices for ULLS

The ULLS provides the opportunity for competitors to compete with Telstra in the provision of broadband services using their own facilities together with Telstra's copper wire network which connects most customers. Telstra has proposed access prices in its most recent undertakings (\$20 for CBD areas and \$40 for metropolitan areas) which the Commission considers is unlikely to promote broadband infrastructure competition.

After reviewing the latest cost estimates for this service using Telstra's PIE II model, the Commission considers that its previous approach, which resulted in an access price for metropolitan areas (band 2) of \$35, overstated these costs but that the access price for CBD areas (band 1) were probably closer to efficient costs. Similarly Band 3 costs (regional centres) are close to previous estimates. Accordingly the Commission considers the following price range for the three years 2003-04, 2004-05 and 2005-06 would be reasonable:

**Table 1.2: Model access prices for ULLS (\$ per SIO per month)
for 2003-04, 2004-05 and 2005-06**

Band	Model access prices	Previous ACCC access prices
1 (CBD)	\$11-14	\$13
2 (metro)	\$19-22	\$35
3 (regional)	\$35-\$40	\$39
4 (remote)	\$80-\$100	\$59

The Commission consider these access prices are closer to what is required to stimulate broadband demand and competition in city/metropolitan areas where DSL⁵ technology is most suited. In particular, the proposed charge is partly predicated on levels of assumed demand for this service of around 140,000 lines by 2005. If this is achieved, it would mean a more substantive level of broadband roll-out which is likely to see much higher penetration levels than what has occurred to date and a more vigorous competitive broadband environment. On this basis, the proposed approach would accord with relevant statutory criteria and the Commission's TSLRIC approach.

This would result in an average of around \$20 per month for the key band 1 and 2 areas, which compares more than favourably to international averages of around A\$22

⁵ DSL refers to digital subscriber line which enables existing copper (voice) lines to be converted into high-speed broadband lines.

a month⁶ (A\$25/month in the UK; A\$22 in Continental Europe; A\$24 in North America). In relation to Band 3 and 4 areas, little if any use of DSL for broadband provision is expected given the higher network costs evident in such areas. In this regard, other (wireless) technologies may be more suited to the provision of broadband services.

In addition, if take-up of this magnitude does materialise, it is likely provide further justification for easing LCS regulation over this period, at least in those geographic areas where ULLS competition emerges, which would be consistent with less reliance on resale regulation, as discussed in chapter 12.

If, however, demand is not forthcoming after this time, because ULLS does not prove itself in the broader (residential) market, the Commission considers the continuing need and appropriateness of regulating the ULLS would need to be reconsidered.

Given the relatively low take-up rates to date, it should also be noted that Telstra is yet to recover its ULLS-specific costs associated with the provision of this service to competitors. The Commission considers that reasonably incurred costs should be recovered over time. In this regard, the Commission considers it may also be reasonable for an adjustment factor to be applied to the above model access prices in each year, which is intended to provide some limits on Telstra's exposure from significant shortfalls in ULLS take-up, but also ensure that Telstra does not over-recover its costs.

1.1.3 Draft model access prices for LCS

The Commission's approach for determining its draft determination LCS price is based on pricing principles adopted previously which specify use of a retail minus retail costs methodology. This reflects the Commission's view that the TSLRIC on a local call including indirect costs and an ADC (TSLRIC++) plus retail costs exceeds the price-capped price of 20 cents, at least for the current financial year.

In maintaining this approach the Commission conducted an imputation analysis to test if access seekers are able to compete with Telstra's retail bundles of local and pre-selected national long distance, international and fixed to mobile call services when faced with the LCS prices and other access prices previously determined by the Commission. This imputation analysis indicates that the negative margins on local call services are more than offset by positive margins on the other call services and hence Telstra passes the imputation test. On this basis, the Commission has deemed it unnecessary to change the retail starting price from which retail costs are subtracted from Telstra's unbundled prices to bundled prices (or a weighted average thereof) as sought by some access seekers.

⁶ This is based on a recent study by the German telecommunications Regulator RegTP, April 2003.

However, the Commission would continue to monitor Telstra's bundling conduct and carry out regular imputation testing under the new accounting separation provisions, as well as investigate particular instances, as appropriate, using its competition powers under Part XIB of the Act.

The Commission has set indicative LCS prices based on its existing retail minus methodology for 2003-04 (see below). LCS prices could either be determined on an annual basis in line with changes to retail costs or at the outset through the use of an adjustment factor or alternatively as a flat charge that would apply to a number of years.

The Commission, however, has also opened up the possibility that it could utilise a TSLRIC based price to determine the LCS price in subsequent years, should a price determined on this basis fall below the price-capped level of 20 cents (including retail costs). If so, the need to determine three year LCS charges at the outset on the current basis would be moot. In addition, the use of a TSLRIC approach raises several issues about the way LCS should be regulated. For example, an issue would arise as to whether LCS should be continued to be declared, given that the price would converge with the combined PSTN originating and terminating access services. Secondly, and on related matter, the tendency for some access seekers to selectively use the PSTN O/T services to provide local calls on a call over-ride basis may also have a bearing on the appropriate use and regulation of the LCS. These issues are discussed further in chapter 12 and comments are invited from interested parties on the desirable approach to the determination of indicative LCS charges in the future, given these considerations.

The Commission's draft estimate for the LCS price based on its retail minus methodology is between 12.81 to 13.61 cents for 2003-04, although it is also apparent that some variation around this range can be expected given the sensitivity of the cost allocation assumptions.

2 Introduction

Under Part XIC of the *Trade Practice Act 1974* (the Act), the Australian Competition and Consumer Commission (the Commission) must, among other tasks:

- approve (or otherwise) undertakings submitted by access providers which may include the terms and conditions of access to declared telecommunications services⁷; and
- arbitrate disputes between parties concerning the terms and conditions of access to declared telecommunications services.⁸

In addition, the recent enactment of the *Telecommunications Competition Act 2002* has made certain amendments to the telecommunications industry regulatory regime as contained in Parts XIB and XIC of the Act. The insertion of section 152AQB has initiated a requirement upon the Commission to publish by written determination non-binding model terms and conditions of access, including prices, for each of the core services.

These core services are the PSTN O/T services, the ULLS, the LCS and any additional core service specified in regulations by the Minister.

2.1 Role of model terms and conditions

The Commission considers that model price terms and conditions will provide guidance to industry participants in several circumstances. For example, they will provide guidance to access providers and seekers involved in negotiating the terms and conditions of access to the core services, particularly as they would be taken into account by the Commission in any arbitration of access disputes that arise from such negotiations. As well, it is expected that these model terms and conditions would also provide guidance to carriers considering providing access undertakings to the Commission in respect of the core services.

The availability of model terms and conditions is designed to overcome any regulatory uncertainty industry participants may have prior to regulatory arbitration of disputes. Parties will therefore have an up-front view of the likely outcome of a particular issue thereby encouraging the parties to reach commercial agreement on access or by access undertaking.⁹

⁷ Declared services are services declared under Part XIC of the Act. Refer to section 152AL of the Act.

⁸ Under the *Telecommunications Act 1997*, the Commission also has responsibilities to arbitrate disputes over the terms and conditions for matters such as preselection and number portability.

⁹ Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), at p. 2 and 32.

It should be noted that prior to the enactment of this new statutory requirement to disclose its views on model access prices, the Commission published indicative access prices for the PSTN O/T¹⁰, ULLS¹¹ and LCS.¹² Consistent with its views outlined above, the Commission considered that this type of information would assist commercial negotiations, thereby increasing the chance of resolving differences in a more timely manner. In this regard, information on model access prices, which improves industry certainty, can act as an incentive for settlement using negotiations in a number of ways, including private mediation or other dispute resolution approaches.

That said, the access prices outlined in the attached draft determination (the determination) are indicative and non-binding on participants. This means that while the Commission would ordinarily see these access prices as appropriate in a general sense, it is bound to look at any specific issues raised by the parties in individual arbitrations or undertakings, based on their individual merits. This means a determination made in an arbitration will depend upon the particular circumstances of the dispute, as they exist at the time, and similarly an undertaking assessment would need to take account of its specific provisions. As such, there will inevitably remain some potential for an arbitration determination or an approved undertaking to depart from the model terms and conditions.

2.2 Nature of determination

Under section 152AQB, the Commission is required to take all reasonable steps to publish its determination of model terms and conditions for core services within six months of the amendments or a regulation coming into force and must consult with interested parties and the Australian Communications Authority ('ACA') before making a determination. The determination can have effect for up to five years, although it can be revoked at any time prior to this. Similarly, the Commission considers that a determination can be varied should circumstances require.¹³

In this regard, this determination will be the first the Commission will publish under the terms of the new section 152AQB requirements. As noted above, the Commission has published indicative access prices for the core services before. However, as part of its current consideration of model price terms and conditions there have been a number of issues that have been raised which have required the Commission to review or revise its previous approach.

¹⁰ In May 2001, the Commission announced its provisional headline rate for 2001-02 for domestic PSTN O/T services on Telstra's network. Prior to this the Commission provided its views on PSTN O/T access prices as part of its determination of access undertakings.

¹¹ See ACCC, *Pricing of Unconditioned Local Loop services (ULLS) – Final Report*, May 2002.

¹² See ACCC, *Local Carriage Service Pricing Principles and Indicative Prices – Final Report (Revised)*, April 2002.

¹³ Section 33(3) of the *Acts Interpretation Act 1901*.

In addition, during the period of the Commission's consideration, Telstra lodged access undertakings for each of the core services pursuant to section 152BS of the Act. These undertakings were accompanied by a voluminous amount of material, including a new economic costing model PIE II, which has required separate and detailed scrutiny. The Commission is still considering this material in the context of making a decision about whether to accept or reject these undertakings under the Act. The time-frames for this decision, however, are somewhat different from those under section 152AQB¹⁴, which has meant that the Commission's decisions on model price terms and conditions needs to be made prior to any decision on the core service undertakings.

Accordingly, the Commission may need to make changes to its model price terms and conditions determination at a subsequent stage, should its further analysis and consideration of Telstra's undertakings and proposed modelling framework warrant this.

2.3 Consultation

This paper and the attached determination are particularly concerned with model *price* terms and conditions. A companion paper deals with *non-price* terms and conditions. Both papers are being released at the same time for comment by interested parties.

As part of its preparation for this paper and specification of its determination of model prices for core services, the Commission has published two discussion papers seeking the views of interested parties on the main aspects of its pricing considerations. In February 2003 it issued its discussion paper on the ADC and in April 2003 it issued a separate paper on other pricing aspects.¹⁵ Responses to the ADC paper were extensive and have been posted on the Commission's website and have been taken into account in forming its views on the pricing of PSTN services (see chapter 8). Responses to the more general pricing paper have been limited, which is not unexpected given the paper was issued around the same time as consultation on Telstra's core service undertakings began. Further, detailed responses are dependent on access to confidential modelling related information which the Commission understands industry participants are only now gaining access to.¹⁶ The Commission has nonetheless taken account of those submissions that have been received in forming its views about pricing issues.

In addition, the Commission has consulted and has had meetings with interested parties about its pricing approach to these services, either as part of this model price exercise or in relation to the recent Telstra undertakings. In terms of the latter, Telstra has also

¹⁴ Consideration of undertakings is also subject to six month time-frames, however various clock stopping provisions are also available, which have the effect of extending the time-frames for the undertaking process as compared to this process of specifying model terms and conditions.

¹⁵ See ACCC, *The Need for an ADC for PSTN Access Service Pricing*, February 2003 and ACCC, *Model Prices Terms and Conditions for PSTN, ULLS and LCS*, Discussion Paper, April 2003.

¹⁶ This consultation process for the undertaking assessment is still underway at the time this paper was published.

discussed the possibility with the Commission of lodging new undertakings which more closely reflect the Commission's views on pricing for core services. Consistent with recent changes to the Act which promote the use of access undertakings, the Commission continues to welcome industry wide undertakings from Telstra which are broadly in line with the Commission's views on the pricing on core services as set out in this determination.

Further, the Commission has yet to make a decision on Telstra's January 2003 undertakings for core services, although it is noted that the indicative rates proposed in this determination are less than, and in some cases significantly so, than what Telstra has recently proposed. As well, the factors used in determining these prices are essentially the same as those the Commission is obliged to consider in assessing the undertakings.

2.4 Further processes

2.4.1 Commercial-in-confidence information

In arriving at its draft pricing estimates the Commission has relied on commercial-in-confidence information supplied by Telstra. The Commission has assessed this material in terms of its policy on treatment of information¹⁷ and has determined that it should not reproduce that material in this report. Accordingly, where commercial-in-confidence information 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 a confidential nature or, where this is not possible, it has been masked with the designation [c-i-c].

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 its provider 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 information that has been relied upon by the Commission in developing model prices, and would similarly encourage the provision of any further information that has been relied upon by the Commission but not to date supplied to interested persons. The Commission notes that, unless it can corroborate commercial-in-confidence information in some other way, it is constrained in the weight that it can give to information that has not been subject to 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.

2.4.2 Comments on draft determination

It should be noted the nominal six-month time-frame referred to by the legislation expires on 19 June 2003. However, given the additional work associated with the

¹⁷ Australian Competition and Consumer Commission, *Collection and Use of Information*, 2000.

access undertakings which were submitted in this period, it has not been possible to meet this legislative objective of a final determination by this time. It has been the Commission's intention nonetheless to provide at least its draft views on model price and non-price terms and conditions prior to this date. The Commission intends to finalise its views on these matters as soon as possible after comments are received on this paper and determination. At this stage, it would expect these matters to be finalised by mid-to-late July 2003. In the Commission's view this will provide the requisite degree of guidance to industry participants within the broad time-frame contemplated by the legislation.

Parties are invited to provide their views to the draft determination regarding model price terms and conditions by 18 July 2003. Comments should be provided electronically to the following:

Igor Popovic (igor.popovic@accc.gov.au)

Any confidential submissions or parts thereof should be clearly identified.

Part I of this paper discusses PSTN and ULLS issues while Part II discusses LCS issues and Part III contains the draft determination.

3 Legislative criteria

The Commission will seek to promote the LTIE in determining model terms and conditions under section 152AQB of the Act. The Commission will also have regard to the reasonableness criteria, which include the promotion of the LTIE, that are contained in section 152AH of the Act. The use of these criteria to develop model terms and conditions is discussed in this chapter.

3.1 The long term interests of end users

The object of Part XIC of the Act is to promote the LTIE of carriage services or of services provided by means of carriage services.¹⁸ This will partly be achieved through establishing the rights of third parties to gain access to services which are necessary for competitive services to be supplied to end-users.

Accordingly, in making a determination that sets out model terms and conditions, as is the case when it performs its other functions under Part XIC of the Act, the Commission will seek to promote the LTIE.

In considering whether a determination will promote the LTIE, the Commission must consider the achievement of the following objectives:

- promoting competition in markets for telecommunications services;
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users; and
- encouraging the economically-efficient use of, and the economically-efficient investment in, the infrastructure by which telecommunications services are supplied.¹⁹

An important part of the access regime is the terms and conditions of access (including the price or a method for ascertaining the price). Under Part XIC the Commission cannot draft an access code²⁰ or accept an undertaking unless satisfied that the terms and conditions specified are reasonable.²¹

¹⁸ Section 152AB(1) of the Act.

¹⁹ Section 152AB(2) of the Act.

²⁰ Note that recent amendments to Part XIC remove references to the TAF and the TAF access code. Reference is simply made to an access code made by the Commission.

²¹ The Commission must also ensure that the terms and conditions in an access code, in undertakings and any arbitration determination is consistent with any Ministerial pricing determination in place. See section 152CH of the Act.

3.2 ‘Reasonableness’ Criteria

Although there is no express requirement for it to do so, the Commission will also have regard for whether a term is reasonable in determining model terms and conditions. Section 152AH of the Act contains criteria by which to assess reasonableness.

In taking this approach, the Commission is mindful that model terms and conditions are intended to provide guidance to industry on the Commission’s views as to what would constitute fair terms of access. The Commission is required to have regard to the reasonableness criteria both in assessing access undertakings and in making final arbitral determinations.²² It is therefore appropriate to have regard to the same criteria in making model terms and conditions.

Having said that, the Commission notes that model terms and conditions are intended to be indicative and non-binding, and that a determination made in arbitration will depend upon the particular circumstances of the dispute as they exist at the time. As such, there will remain potential for an arbitration determination to depart from the model terms and conditions. This is also the case in regard to the assessment of individual undertakings.

In determining whether terms and conditions are reasonable, the following matters must be considered:

- whether the terms and conditions promote the LTIE of carriage services or of services supplied by means of carriage services;
- the legitimate business interests of the carrier or carriage service provider concerned, and the carrier’s or provider’s investment in facilities used to supply the declared service concerned;
- the interests of persons who have rights to use the declared service concerned;
- the direct cost of providing access to the declared service concerned;
- the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility; and
- the economically-efficient operation of a carriage service, a telecommunications network or a facility.²³

This does not, by implication, limit the matters under consideration.²⁴ This means other matters which are relevant to consideration of appropriate terms and conditions, including prices, may also be taken into account (see below).

²² See section 152AQB and Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), p 39.

²³ Section 152AH(1) of the Act.

²⁴ Section 152AH(2) of the Act.

3.3 Application of these considerations in developing model price terms

3.3.1 Long-term interests of end-users

As outlined above, the LTIE will generally be promoted by lower prices (that are sustainable) higher quality of service and greater choice of products. These outcomes will be promoted by:

- competition in markets for telecommunications services;
- any-to-any connectivity; and
- encouraging the economically-efficient use of, and investment in, telecommunications infrastructure.

Promoting competition in markets for telecommunications services

Part XIC is concerned with promoting competition in those markets that are dependent on the services of telecommunications markets (dependent markets). Where existing conditions do not already provide for the competitive supply of these services, Part XIC (including the pricing of access) aims to facilitate access to these services to encourage the efficient entry of firms and efficient competition in dependent upstream or downstream markets.

Any-to-any connectivity

Any-to-any connectivity is the ability of end-users of different networks to communicate. Access prices should not artificially discriminate against the users of any particular network in the provision of any-to-any connectivity and should encourage operators of different networks to configure their networks to promote any-to-any connectivity.

Encouraging economically-efficient use of, and investment in, telecommunications infrastructure

The economically-efficient use of, and investment in, infrastructure comprises three (interdependent) elements:

- dynamic efficiency – firms have the appropriate incentives to invest, innovate, improve the range and quality of services, increase productivity and lower costs through time;
- productive efficiency – firms have the appropriate incentives to produce services at least cost, and production activities are distributed between firms such that industry-wide costs are minimised; and
- allocative efficiency – firms employ resources to produce goods and services that provide the maximum benefit to society in any given period. An important condition for allocative efficiency is that prices for services at least

reflect the value society places on the next best alternative use of the resources to produce the service.²⁵

3.3.2 Legitimate business interests of the carrier or carriage service provider concerned

The legitimate business interests of access providers requires the Commission to consider whether the access price would provide a normal commercial return on prudent investment.²⁶ The services to which Part XIC will mostly apply are provided using highly capital intensive and specialised infrastructure, the costs of which are largely sunk before the service is provided. It is legitimate for the carrier or carriage service provider to recover the costs of prudent investment from its commercial activities, including providing access.

However, it is unlikely the legitimate business interests extend to achieving a higher than normal commercial return through the use of market power. For example, an access price should not, in most cases, be artificially inflated because of the lack of competition in the supply of infrastructure services.

3.3.3 Interests of persons who have rights to use the declared service

In the Commission's view, persons who have rights to use the declared service have an interest in competing for the custom of end-users on the basis of their technical and commercial merits. Their ability to compete in the supply of a service in a dependent market should be based on the cost or quality of their service relative to their competitors. For example, an access price should not artificially protect a vertically-integrated access provider from being displaced by a more efficient service provider in a downstream market.

3.3.4 The direct costs of providing access

Direct costs are necessarily incurred/caused by the provision of access. An access price should not be inflated to recover any profits the access provider (or any other party) may lose in a dependent market as a result of the provision of access. As stated in the relevant explanatory memorandum:²⁷

²⁵ For example, it would be allocatively inefficient to devote resources to produce telecommunications services that society places a low value on, rather than other services (including other telecommunication services) that society desires highly. Further discussion of these efficiency concepts can be found in ACCC, *Access Pricing Principles – A Guide – Telecommunications*, July 1997, p. 35.

²⁶ The Commission may also take into account access providers' obligations to shareholders and other stakeholders.

²⁷ Commonwealth, *Trade Practices Amendment (Telecommunications) Bill 1996* Explanatory Memorandum, p. 44.

... ‘ 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.

3.3.5 Operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility

An access price should not lead to arrangements between access providers and access seekers that will encourage the unsafe or unreliable operation of a carriage service, telecommunications network or facility.

3.3.6 The economically-efficient operation of a carriage service, a telecommunications network or facility

This criteria is similar to the productive and allocative efficiency elements described above in section 3.3.1. An access price should encourage access providers to select the least-cost method of providing the service and provide those services most highly valued by access seekers.

The criteria above are therefore interdependent and in most cases will be re-enforcing, i.e. promoting one criterion will also promote another. In some cases, however, the criteria may lead to different efficient outcomes as between the short term and the longer term. For example, telecommunications is an industry where the delivery of many services is characterised by economies of scale and scope. This could mean that an access price that maximises the economically-efficient use of infrastructure in the short term may, by being based on some short-run marginal cost approach, in some cases, not encourage efficient investment in infrastructure over the long term.

3.3.7 Other considerations

In addition to the specific reasonableness criteria noted under section 152AH above, the Commission may also take account of other matters under this provision which pertain to the determination or assessment of appropriate prices which promote the objects of Part XIC of the Act.²⁸

In considering the LTIE and the reasonableness of the model terms and conditions, for example, the Commission has to some extent been also been guided by the *Telecommunications Competition Bill 2002 Explanatory Memorandum* (the explanatory memorandum) as to what principles should be reflected in the model terms and conditions.

It is clear from the explanatory memorandum that the model terms and conditions must be a reflection of what the Commission considers to be fair terms and conditions of access.²⁹ In the Commission’s view, the concept of ‘fair’ as used in the context of

²⁸ Subsection 152AH(2).

²⁹ Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), p. 32.

model terms and conditions means that they strike an appropriate balance of the rights and interests of the various parties in terms of access to telecommunications services.

For example, it is important that the model terms and conditions be based on an assessment of current market conditions. The Commission has consulted and continues to consult with industry parties in relation to the current access arrangements. Therefore the issues and views of the Commission and any model terms and conditions arising from this process will be based on current market conditions. Also, implicit in this requirement is that if and when a particular model term and condition no longer reflects current market conditions, it will be appropriate for the Commission to revise its view in respect of that particular term and condition to accord with current market conditions that are evident at the time.

In this regard, the Commission notes that the need to take account of current market conditions,³⁰ the promotion of a stable regulatory environment and hence the desirability of avoiding sudden and abrupt changes to regulatory policies, which may cause undue disruption to business and investment plans, are relevant considerations for the purposes of this provision.

³⁰ See section 152AQB and Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), p 39.

PART I – PSTN O/T services and the ULLS

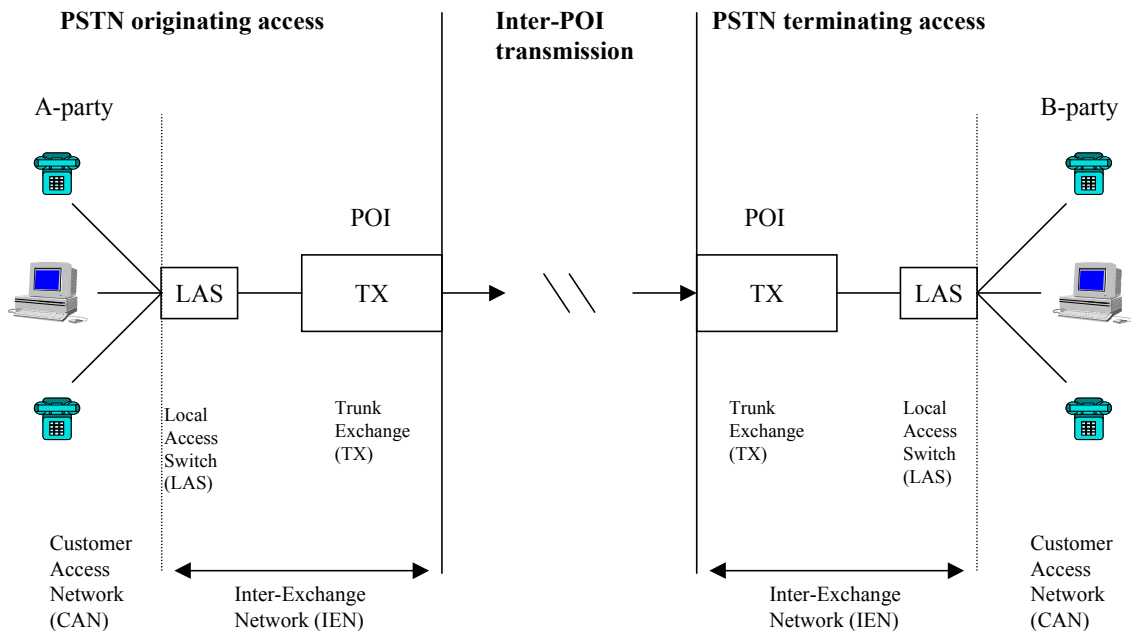
4 Service descriptions

The attached determination specifies the model price terms and conditions for the core telecommunications services. This chapter outlines the nature of the domestic PSTN O/T access services and ULLS. LCS is discussed in Chapter 10 below.

4.1 PSTN O/T services

The Commission declared the domestic PSTN O/T services in July 1997. 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). This is shown in Figure 2.1.

Figure 2.1: Domestic PSTN O/T services



The declared domestic PSTN O/T services are, in general, used as inputs by service providers primarily to supply long-distance calls, such as international direct dial (IDD)

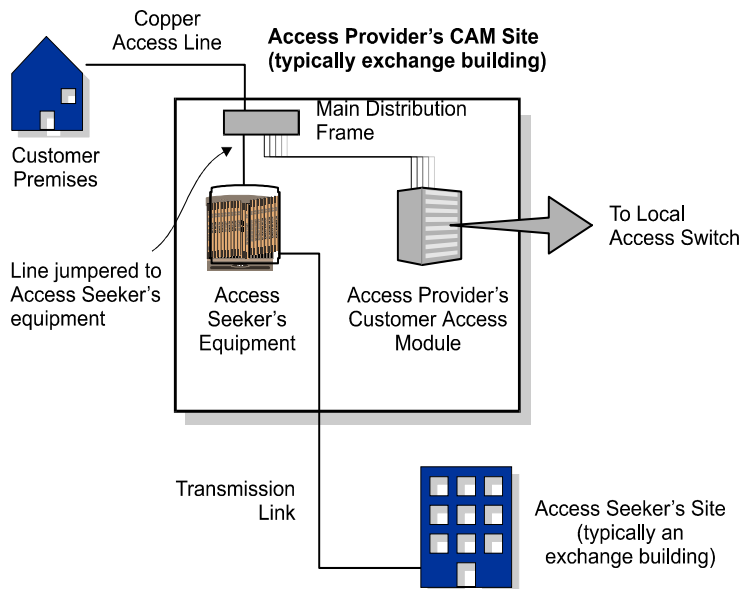
and subscriber trunk dialling ('STD'), as well as fixed-to-mobile ('FTM') and mobile-to-fixed ('MTF') calls to end-users in Australia. They can also be used by other network operators to interconnect with Telstra's fixed network.

4.2 ULLS

The Commission declared the ULLS in July 1999. 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 2.1 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 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 2.2. In some areas, notably in CBDs, customers are directly connected to a LAS which effectively serves as the CAM.

Figure 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 customer access network located throughout Australia.³¹

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 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, IDD and STD call services in competition with Telstra.

³¹ See ACCC, *Declaration of Local Telecommunications Services*, July 1999 for full details of the Commission's decision.

5 Appropriate pricing principles satisfying the legislative criteria

Consistent with the approach discussed in chapter 3, the Commission has in the past determined access prices based on the TSLRIC necessary to recover efficient forward-looking network costs. The Commission has previously considered such an approach to be consistent with the reasonableness criteria under s. 152AH of Part XIC of the Act in circumstances where the declared service is well developed, necessary for competition in dependent markets, and the forces of competition work poorly in constraining prices to efficient levels.³²

The following chapter outlines the nature of such a pricing approach, industry participants' views in relation to this approach (where provided), how it best meets the reasonableness criteria and its application to the PSTN O/T services and ULLS.

5.1 Total service long-run incremental cost

The concept of TSLRIC can be understood by breaking it up into its components.

- 'Total service' refers to the cost of production of an entire service (or a production element) not to the cost of a particular unit.
- 'Long run' refers to a cost concept where all factors of production can be varied. In the short run the amount of at least one factor of production (usually capital equipment) is fixed.
- 'Incremental cost' is a form of marginal cost, although not the more familiar 'marginal cost' where the change in cost is incurred through a small change in the **amount** of output produced. Rather, incremental cost is the annual incremental or additional cost the firm incurs in the long run in providing the relevant service increment (or production element) as a whole, assuming all of its other production activities remain unchanged. In the case of the total service incremental cost, the service increment is the cost of production of an entire service.
- It is also an attributable cost concept as it refers only to those costs that can be attributed to the production of the service. However, in the case of the PSTN and the ULLS, these services are produced using production elements shared with other services (leased lines and ISDN), and these costs are rolled-in and shared over all lines on a fully-distributed cost ('FDC') basis.
- In practice TSLRIC is usually defined to include a contribution to indirect or organisation-level costs ('TSLRIC+').

³² ACCC, *Access Pricing Principles — A Guide – Telecommunications*, July 1997, p. 35.

Given these attributes, TSLRIC can also be defined as the total cost (on an annual basis) the firm would avoid in the long run if it ceased to provide the service as a whole.

In a practical sense TSLRIC consists of the sum of the operating and maintenance costs, as well as the capital costs that the firm incurs in providing the service as a whole. *Operating costs* are the continuing operational costs of providing the service, including the labour and materials costs that are causally related to the provision of the service. *Capital costs* comprise the cost of capital (i.e. the opportunity cost of debt and equity used to finance the firm) and depreciation (i.e. the decline in economic value of assets) of capital that is specific to the production of the service.

In general most industry participants were of the view that a forward-looking cost principle should be applied and that TSLRIC was appropriate in this regard. For example, in its submission to the Commission on model price terms and conditions, Telstra accepts that TSLRIC is an appropriate basis on which to determine access prices for PSTN and the ULLS, together with an allocation of common and indirect costs.³³ Optus also submitted that a forward-looking economic cost approach is the highest access price that will be consistent with achieving dynamic efficiency as well as productive and allocative efficiency.³⁴ AAPT, Macquarie, Primus and PowerTel were also supportive of a TSLRIC approach.³⁵

5.2 The legislative criteria, TSLRIC and the PSTN and ULLS

In determining the appropriate pricing approach for declared services the Commission must have regard to the reasonableness criteria, under section 152AH of the Act. These are detailed in chapter 3 but can be summarised as:

- promoting the LTIE;
- the interests of both the access provider and the access seeker;
- the direct cost of providing access to the declared service; and
- the economically-efficient operation of a carriage service.³⁶

Taking these criteria into account, the Commission has noted in its *Access Pricing Principles* a TSLRIC pricing approach is appropriate where a declared service is well

³³ Telstra submission, p. 1.

³⁴ Optus submission, p. 57.

³⁵ AAPT submission, p. 3, Macquarie submission, p. 1-2, Primus submission, p. 3, PowerTel submission, p. 1-2.

³⁶ It is noted that there is likely to be a considerable overlap between the matters that the Commission takes into account in considering the LTIE and its consideration of the economically-efficient operation of a carriage service.

developed, necessary for competition in dependent markets, and the forces of competition work poorly in constraining prices to efficient levels.³⁷

Using these principles the Commission has previously concluded that access prices for PSTN and ULLS are appropriately determined using a TSLRIC(+) approach.³⁸

In relation to PSTN O/T services, they are clearly well developed. Voice services such as IDD and STD calls, which are supplied using these inputs, have been part of basic telephony services for a considerable period of time and have well established demand characteristics. They are also necessary for competition in dependent markets as without the PSTN O/T services access seekers would not be able to terminate IDD, STD and FTM calls to a significant proportion of customers. Further, as it is uneconomic to duplicate Telstra's PSTN O/T services in many areas there does not appear to be any threat from alternative infrastructure providers.

In relation to the ULLS, while this is a new service for access seekers, it relates to the most basic building-block in Telstra's network, the copper CAN infrastructure which has been developed and in use for more than a hundred years. It is also a necessary input for the provision of a variety of voice and high-bandwidth data services and Telstra is the predominant supplier throughout Australia.³⁹

³⁷ ACCC, *Access Pricing Principles — A Guide – Telecommunications*, July 1997, p. 35.

³⁸ See ACCC, *Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access – Final Decision*, June 1999, ACCC, *A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services*, July 2000 and ACCC, *Pricing of Unconditioned Local Loop Services – Final Report*, March 2002.

³⁹ See ACCC, *Declaration of Local Telecommunications Services*, July 1999.

6 Modelling framework

As indicated in previous discussion papers, there are several modelling frameworks available to the Commission to assist it in determining access prices for PSTN O/T services and the ULLS.⁴⁰ These include the Commission's n/e/r/a model and Telstra's PIE II model. The following chapter outlines the major aspects of each of these models, discusses the possibility of using an adjustment factor as well as price ranges and provides the Commission's views as to which modelling framework it will use for the purposes this indicative pricing exercise.

6.1 The appropriate model

6.1.1 n/e/r/a model

The n/e/r/a model dates back to the late 1990s, where it was first used to determine access prices for the purposes of assessing Telstra's first undertaking for PSTN O/T services.⁴¹ Subsequently, it was relied upon by the Commission for assessing Telstra's second undertaking for PSTN O/T services and as an input to determining ULLS access prices.⁴² It was updated for the purpose of assessing the second undertaking and several modifications made for the purpose of determining appropriate ULLS access prices. However, it now requires further updating of asset and network information.

In modelling the PSTN network, the n/e/r/a model uses average distances (as opposed to actual distances) between end-user locations and various network points in four specific geographic areas. It is a scorched-node model that estimates the costs of an efficient supplier operating a network based on the location of end-users and network points as they existed in Telstra's network.

6.1.2 PIE II model

The PIE II model has recently been developed by Telstra and is currently being used to support its most recent undertakings for PSTN O/T services and ULLS.⁴³ Telstra

⁴⁰ See ACCC, *Future Access Pricing Approaches for PSTN, ULLS and LCS*, Discussion Paper, September 2002 and ACCC, *Model Prices Terms and Conditions for PSTN, ULLS and LCS*, Discussion Paper, April 2003.

⁴¹ See ACCC, *Assessment of Telstra's Undertakings for Domestic PSTN Originating and Terminating Access*, Final Decision, June 1999

⁴² See ACCC, *A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Service*, July 2000 and ACCC, *Pricing of Unconditioned Local Loop Services*, Final Report, March 2002

⁴³ Telstra, *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings of 9 January 2003*, p 3.

claims it contains up-to-date traffic and service forecasts not related to when the model was built, and cost information.

Unlike the n/e/r/a model, the PIE II model is based on actual distances between end-user locations and various network points in four specific geographic. That is, in a very detailed way it maps the locations of each end-user and network point in order to model the PSTN network. In that sense it may be superior to the Commission's n/e/r/a model. The Commission understands that the PIE II model applies a scorched-node approach and uses the network architecture which constitutes best in use technology as at 1 July 2002. As noted by Telstra:

The model optimises the network elements necessary to build a least cost PSTN. It assumes however that where it is necessary to locate equipment (including local access switches) in a building within an Exchange Service Area ('ESA'), an existing Telstra equipment building is chosen.⁴⁴

Another potentially significant difference between the n/e/r/a and PIE II models is that, while n/e/r/a is a TSLRIC model, Telstra describes the PIE II model a Total Element Long Run Incremental Cost ('TELRIC') model.⁴⁵ Both models cost the elements needed to supply the PSTN service (i.e. the switches and links between the switches), and then, using routing factors, calculate PSTN conveyance costs based on the usage by PSTN calls of those elements. Therefore, the difference between TSLRIC and TELRIC may only be in terminology. However, the Commission notes that any difference in terminology may also be indicative of differences in the basic nature of the models. For example, it is not clear whether the TELRIC approach conforms more closely to a stand-alone rather than a fully distributed model.⁴⁶

To date, the Commission's own examination of the PIE II model has shown the following:

- its estimates of headline conveyance costs are not unlike those produced by the n/e/r/a model; and
- its estimates of line costs in non-urban areas are significantly higher than those produced in previous models, and in particular the n/e/r/a model, but that its estimates in urban areas are significantly lower – this has implications for the ADC and ULLS costs (see Chapters 8 and 9).

⁴⁴ Telstra, *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings of 9 January 2003*, p 4.

⁴⁵ Telstra, *Telstra's Submission in Relation to the Methodology used for Deriving Prices Proposed in its Undertakings of 9 January 2003*, p 3.

⁴⁶ See ACCC, *Future Access Pricing Approaches for PSTN, ULLS and LCS*, Discussion Paper, September 2002, Appendix 1.

6.1.3 Industry participants' views

Telstra has submitted that the PIE II model is the most current and accurate model available, and is therefore the most appropriate model for determining model price terms and conditions for the PSTN and ULLS (as well as for assessing its most recent undertakings).⁴⁷ Macquarie supports the use of the PIE II model, providing the model follows a scorched-node approach with forward-looking technologies, and that the Commission approves or determines the inputs as appropriate.⁴⁸

However, other parties have reservations over the use of PIE II, particularly given they had not had the opportunity to scrutinise the model at the time of making the submissions.⁴⁹

6.1.4 Commission's current views

Despite some current reservations over the appropriateness of Telstra's PIE II model, which means certain qualifications remain at this time,⁵⁰ the Commission proposes to use it to inform itself in relation to determining model price terms and condition. The Commission proposes to do so as its preliminary assessment of the model reveals outcomes, particularly call conveyance costs, not unlike those of the n/e/r/a model adjusted for similar periods and input values. Further, the prices being determined are only indicative and will be used to guide the industry in negotiations rather than setting actual prices.

Should the Commission set binding prices in the context of an arbitration, it would consider using Telstra's model only after a fuller assessment of the model is undertaken and industry participants have had the opportunity to analyse its modelling framework and assumptions. In this regard, in the context of examining Telstra's undertakings, the Commission has set the relevant consultation period to enable interested parties to comment on the characteristics of the model and related matters.

This said, the Commission has not ruled out the possibility of updating and improving the n/e/r/a model in the future. In particular, this would be considered seriously should structural weaknesses be evident after detailed analysis of the PIE II model.

⁴⁷ Telstra submission, p. 1.

⁴⁸ Macquarie submission, p. 1-2.

⁴⁹ Primus submission, p. 3, PowerTel submission, p. 1-2, Optus submission on model price terms and conditions, p. 56.

⁵⁰ As noted earlier, the Commission understands at the time of publishing this paper that industry participants have had a limited opportunity to examine the model and accordingly their considerations have not fed into this process. It is anticipated that in forming its final determination the Commission will benefit from greater industry scrutiny of the PIE II model.

6.2 Applying an adjustment factor

In its discussion paper *Future Access Pricing Approaches for PSTN, ULLS and LCS* the Commission noted the possibility of using a TSLRIC model to determine an initial access price and then applying an adjustment factor to update access prices in subsequent periods. It was considered that an adjustment factor would need to take into account consumer price index movements as well as technology and output changes.

The Commission noted that where prices are being determined for the purposes of indicative pricing such an approach may work well as it does not require substantial revisions to a complex TSLRIC model. This said, the Commission also acknowledged that an adjustment factor approach may suffer from reduced accuracy of the price estimates.

6.2.1 Industry participants' views

In relation to the use of adjustment factors, Telstra notes that the PIE II model includes appropriate technology factors and forecasts of traffic volumes for the 2002-03, 2003-04 and 2004-05 financial years. In this regard, it submits that running the model for each year would be no more burdensome than calculating the adjustment factor.⁵¹ Macquarie also considers it may be just as complex to use an adjustment factors as compared to an economic model to determine prices for subsequent years.⁵²

Primus on the other hand, did not oppose the use of a TSLRIC model as the starting point and the application of an adjustment factor to calculate indicative access prices for the following periods.⁵³ Optus submitted that an adjustment factor should comprise a network price index, to measure the expected change in the costs of inputs from the projected annual change in equipment prices for each network asset type, as well as an output factor.⁵⁴ AAPT considered that any calculation of an adjustment factor should reflect the forward-looking nature of the telecommunications access regime.⁵⁵

6.2.2 Commission's current views

In using the PIE II model to inform itself for the purposes of determining model price terms and conditions, the Commission notes that use of an adjustment factor is not necessary. As the PIE II model uses updated traffic and volume estimates as well as asset values to determine estimated costs in each year being considered, the Commission considers application of an adjustment factor is unwarranted for the periods concerned.

⁵¹ Telstra submission, p. 1 and 3.

⁵² Macquarie submission, p. 2.

⁵³ Primus submission, p. 3.

⁵⁴ Optus submission, p. 37-43.

⁵⁵ AAPT submission, p. 3-4.

6.3 Price ranges or points

The Commission's discussion paper on *Future Access Pricing Approaches for PSTN, ULLS and LCS* also raised the issue of using the various modelling frameworks to determine model price ranges or price points. In particular, the Commission noted that using an adjustment factor could allow for a price range to be determined based on an upper and lower limit of the CPI, technology and output estimates. Equally, a range of model prices could be estimated by allowing for different key inputs any particular modelling framework.

6.3.1 Industry participants' views

In Telstra's view a range of indicative prices should be established if at the time of publishing model price terms and conditions, the Commission has not finalised its views on pricing methodology, including the PIE II model.⁵⁶ AAPT also supports the publication of a range of prices, as it considers price ranges will create less uncertainty.⁵⁷ Further, Optus supports a price range, noting that a 'one price fits all' approach may not be appropriate, particularly where the economic costs of supplying services to different access seekers varies.⁵⁸ However, it notes that where a range of prices is published there would also need to be guidance as to the factors that would decide the point within the range which a particular access seeker would negotiate.

However, Macquarie submits that model price terms and conditions should be point estimates rather than a range of estimates. It considers that this would be more likely to facilitate commercial negotiations.

6.3.2 Commission's current views

The Commission considers that both price ranges and price points have merit and that the use of either approach will depend on the specific circumstances and pricing approaches adopted for the core telecommunications services.

⁵⁶ Telstra submission, p 2-3.

⁵⁷ AAPT submission, p 3-4.

⁵⁸ Optus submission, p. 55-56.

7 Appropriate inputs

In examining the PIE II model, the Commission has focused its attention on certain inputs. These are the inputs which appear to have the main bearing on the TSLRIC(+) estimates for PSTN O/T services and the ULLS.

After examining these inputs, the Commission proposes to use the following factors as specified in Telstra's PIE II model for the purposes of determining draft indicative prices:

- routing factors;
- traffic and service volume estimates;
- network provisioning;
- asset prices and lives;
- operation and maintenance costs; and
- indirect (organisational level) costs.

This said, the Commission notes that its acceptance of these parameters is only preliminary and subject to further scrutiny. In this regard, the Commission has not benefited from industry views on many of these matters (as submissions regarding model price terms and conditions were made before most industry participants had gained access to the PIE II model).

There are several inputs, however, in relation to which the Commission does not propose to use the specifications in Telstra's PIE II model in informing itself about pricing issues. These are trench sharing, the WACC and network planning costs. Each of these inputs are discussed below.

7.1 Trench 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, eg, within the feeder network ;
- 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 utilities in new estates; and

- sharing with other telecommunications carriers and Pay TV operators.

7.1.1 Industry participants' views

With regard to sharing with utilities in new estates, Telstra estimates that during any particular year there are at most 1 per cent of services connected in new estates. Therefore, PIE II excludes 1 per cent of trench costs from the PSTN cost pool. Optus, on the other hand, considers that at least 14 per cent of Telstra's network should be made up of new estates as past new estates should also be considered.⁵⁹

Optus further argues that a forward-looking model should look at the extent of trench sharing that would occur if an efficient new operator was rolling out a network today. A new operator would have greater scope and incentives for trench sharing than Telstra has faced historically. Optus also believes that previous TSLRIC models of Australian telecommunications networks have made inadequate sharing assumptions due to a misunderstanding or misrepresentation of the degree of trench sharing between the CAN and IEN as well as between fixed voice telephony and other Telstra businesses.

7.1.2 Commission's current views

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 past ability to share trenches with utilities in new estates, and its ability to share over the regulatory period. In contrast, a scorched-earth approach would reflect the level of trenching in new estates in a given year.

The Commission proposes that the PIE II model should reflect the assumption that new estates make up around 13 per cent of Telstra's network.⁶⁰ Subject to further comment from industry, however, the Commission intends to use the remainder of trench sharing assumptions detailed in PIE II model.

7.2 WACC

The WACC constitutes the return on capital. It is an important component of the overall annual capital costs which need to be calculated in order to determine efficient line and conveyance costs for the PSTN.

There are a number of differences on both the methodology and input assumptions used by the Commission and Telstra to calculate the WACC for the purposes of determining the TSLRIC estimates of the PSTN O/T services and the ULLS.

⁵⁹ Optus submission, p. 61.

⁶⁰ Based on conservative estimates of the accumulative stock of new estimates over the last 10 years.

7.2.1 Industry participants' views

Telstra argues that the appropriate WACC parameters include a risk-free rate that is based on a 10-year Government bond and is not averaged, 7 per cent market risk premium, 1.16 to 1.10 per cent debt risk premium, debt issuance costs, 30 per cent tax rate and 50 per cent imputation factor.⁶¹

Primus believes that the WACC calculation should be associated with the PSTN and not Telstra as a whole and that this would imply lower risks and margins.⁶² Further, Primus submitted that the ACCC should consider using separate asset beta values for the IEN and the CAN as risk to the CAN revenue would be reduced by any acceptance of the ADC.

Optus submitted it is appropriate to use a number of different WACC inputs as compared to those used by either Telstra or the Commission.⁶³ In particular, it believes the debt premium should be set at, or close to, zero, the market risk premium no greater than 3 per cent, the PSTN asset beta at zero, and an imputation factor of 1. Optus also believes the risk free rate should correspond to the period that the indicative prices will remain current, and that the relevant bond rates should be averaged to correct for on-the-day bond fluctuations.

7.2.2 Commission's current views

Aside from two notable exceptions, the Commission believes the WACC parameters that should be used are similar to those set out in its assessment of Telstra's second PSTN undertaking.⁶⁴ The two exceptions refer to the appropriate risk-free rate and the debt-issuance costs.

The following table summarises WACC inputs used by the Commission.

Table 7.1: WACC inputs used by the Commission

Parameter	Value
Debt ratio (D/V)	0.4
Equity ratio (E/V)	0.6
Market risk premium ($r_m - r_f$)	6.0%
Asset beta (β_a)	0.5
Equity beta (β_e)	0.83
Effective tax rate (T_e)	0.2
Debt Premium	0.8
Imputation factor (γ)	0.5

⁶¹ 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. 10.

⁶² Primus submission, p. 4-5.

⁶³ Optus submission, p. 63-69.

⁶⁴ ACCC, *A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services*, July 2000.

With regard to the appropriate risk-free rate, the Commission is aware of the debate over the length of time the risk-free rate should refer to. The possible lengths of time range from one year (as that is the period for which the model sets a price) to 10 years (as argued by Telstra). For the purposes of calculating indicative costs using the PIE II model, the Commission will estimate a risk-free rate whose term equals the period over which the indicative prices are set, as a ten-day average leading up to the beginning of that period. This rate will be used to calculate the WACC which will be kept constant for the three years covered by period of the PIE II model. This is consistent with the Commission's past position on these matters, which is to set the risk-free rate corresponding to the relevant regulatory period.⁶⁵

Debt-issuance costs have previously been accounted by the Commission within its n/e/r/a model in terms of its TSLRIC estimates. There was no need, therefore, to account for these in the WACC. However, Telstra has stated that the PIE II model does not account for these costs, which means that for the purposes of setting indicative prices, the Commission will allow debt-issuance costs to be recovered through the WACC. This has a slight upward effect on the WACC value over that which would have been calculated solely based on the Commission's previous position.

7.3 Network planning costs

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.

7.3.1 Industry participants' views

Telstra contends that a network planning cost should be included in the estimate of network costs.⁶⁶ There is no explicit costing for such an element in the n/e/r/a model however, these costs are accounted for in the PIE II model.

7.3.2 Commission's current views

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. In this regard, the Commission notes that the estimate of efficient costs based on Telstra's current network design ('scorched-node') rather than based on a 'greenfields' network ('scorched-earth') is not contentious between Telstra and the Commission.

⁶⁵ The PIE II model covers a three-year period from 2002-03 to 2004-05 and the risk-free rate has therefore been set on this basis. However, the Commission's proposed glide-path covers the period to 2005-06.

⁶⁶ 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. 13.

8 PSTN - the access deficit contribution

8.1 Introduction

The Commission's present practice is to require that access seekers contribute to the access deficit (AD) resulting from the operation of retail price controls that limit Telstra's ability to retrieve its line costs directly from line rentals on its own retail customers. This part of the charge for the PSTN O/T services is called the ADC and has comprised an average of about 45 per cent of the total access price regarded as reasonable by the Commission.

While recognising that adding an ADC to access prices will be associated with distortions (particularly of the build/buy choice and retail pricing of access seekers) this allowance was based mainly on concerns about possible long-run impacts of the access regime on Telstra's profitability and investment incentives.

The size of the ADC considered reasonable by the Commission to be levied on access prices is currently based on the average of the AD being allocated to calls and minutes on an equal basis (the 50:50 rule) as against being allocated totally to calls (the 100:0 rule) or totally to minutes (the 0:100 rule) . Because access seekers have shorter duration calls on average, the higher the proportion allocated to calls, the higher the ADC amount paid by access seekers.

As part of its work on model price terms and conditions, and in the context of Telstra's most recent undertakings, the Commission sought industry and consumer views on these issues through release of its paper on *The Need for an ADC for PSTN Access Service Pricing*⁶⁷ (the Discussion Paper). The paper raised key issues, including whether there is there a continued need for an ADC. The Commission received ten submissions from industry participants. On the issue of whether there is a need for a continuing ADC, all parties except Telstra either opposed or questioned its continuation and argued that, in any case, currently the AD was defined too narrowly and that surpluses on other line products (particularly ISDN) and (in some cases) call products should be considered as well.

This chapter considers the issue of whether the ADC satisfies the LTIE and reasonableness criteria. It also examines possible changes in the ADC approach and explores ways in which it can be phased out within a shorter time-frame which has appropriate regard to Telstra's ability to re-balance its line rental charges towards costs under current price control provisions.

⁶⁷ ACCC, *The Need for an ADC for PSTN Access Service Pricing*, February 2003.

8.2 Background

The AD is currently defined as follows:

The total annual costs of PSTN lines⁶⁸

plus

The costs of retailing PSTN lines

less

The maximum amount of revenue Telstra could receive from PSTN line rentals under the retail price controls

less

The amount of revenue from the USO fund.

Once the AD is calculated part of it is attributed to PSTN calls (ADC flagfall) and part to PSTN end-minute of use (the ADC EMOU charge) to determine the ADC. The flagfall is then divided by the average call duration and added to the ADC EMOU charge to determine the total ADC EMOU charge.

8.3 Criteria for assessment of changes in the ADC

The Commission has traditionally supported a limited ADC. This has been assessed on the basis of the LTIE and reasonableness criteria as required under Part XIC, and discussed in chapter 3. Assessment of whether an access price with an ADC satisfies these criteria has been particularly focused on the following:⁶⁹

- achieving efficient use of telecommunications infrastructure;⁷⁰
- achieving more efficient investment in telecommunications infrastructure;⁷¹

⁶⁸ Line costs are determined using TSLRIC on a 'forward-looking basis' in both the Commission's n/e/r/a applied cost model and Telstra's PIE II model.

⁶⁹ The other main criteria of achieving any-to-any connectivity and operational and technical requirements necessary for the safe and reliable operation of the carriage service are neither enhanced nor reduced by altering the ADC and are therefore not relevant to this debate.

⁷⁰ Assessment against this criterion also, implicitly, takes into account the direct costs of providing access to declared services, as required under section 152AH of the Act. The direct cost criterion is also considered when having regard to the legitimate business interests of access providers

⁷¹ Assessment against this criterion also, implicitly, takes into account the interest of persons who have rights to use the declared service, as required under section 152AH of the Act. The interests of persons having rights to use the declared service are also considered when having regard to the promotion of competition criterion.

- having regard to the legitimate commercial interests of access providers; and
- the promotion of competition.

In addition, the Commission has had regard to other regulatory instruments that have an impact on the access deficit, namely the price cap obligations imposed by Government. These allow Telstra to remove the AD over a transitional period, which, once this is done, would completely obviate the need for an ADC.⁷²

The assessment of the ADC against these criteria is conducted below.

8.3.1 Achieving more efficient use of telecommunications infrastructure

There is little guidance in section 152AB as to what is meant by economically-efficient use of telecommunications infrastructure. Therefore, this is interpreted in standard economic efficiency terms of moving prices closer to underlying costs to achieve a closer matching of users' valuations of the services, at the margin, with the cost to the economy of providing those units.

While retail prices in the areas covered by the declared services (essentially IDD, STD and FTM) have been decreasing over time as part of the 'rebalancing' of the retail price structure, they remain inefficiently high. This process of rebalancing could be arrested – or even reversed – by increasing the PSTN O/T access prices. If, as is likely, this increase flowed through into higher retail prices for IDD, STD and FTM (including to their non-Telstra equivalents), the efficiency consequences would be substantial.⁷³ This is because prices are already well above long-run costs of supply and because demands are quite elastic.⁷⁴

8.3.2 Achieving more efficient investment in telecommunications infrastructure

This criterion has been interpreted by the Commission in terms of providing incentives for Telstra to make economically-justifiable investments in the PSTN and to ensure access seekers face an appropriate build/buy choice.

Prima facie, it would appear that the level of Telstra's profitability with or without the ADC (see section 8.3.3 below) would be sufficient to provide it with the incentive to invest in the maintenance of the productive capacity of the PSTN. Apparent rates of return from the PSTN are well in excess of Telstra's weighted average cost of capital. However, continuing concerns about the possible impact of the regulatory regime on

⁷² Media release from the Minister for Communications, *Information Technology and the Arts, Consumers to benefit from Telstra price caps*, 22 April 2002.

⁷³ Note however that Telstra's ability to raise IDD, STD and FTM prices is limited by the operation of the retail price controls.

⁷⁴ See ACCC, *Review of Telstra Price Control Arrangements – An ACCC report*, February 2001, Chapter 5.

investment have been raised by Telstra and NECG.⁷⁵ Further, the Commission itself was concerned about the possible long-term impact of the regulatory regime on investment, if no ADC was allowed, at the time of Telstra's first and second undertakings

Since the earlier undertakings, the Commission has conducted a number of internal studies of Telstra's capital investments. In 2001 the Commission also commissioned BIS Shrapnel to study infrastructure acquisition by the industry as a whole.⁷⁶ This broader study is currently being updated. The Productivity Commission's report on *Telecommunications Competition Regulation* (the PC report) also made extensive observations on capital expenditure in the industry (see below).⁷⁷

Table 9.1 sets out Telstra's capital expenditures in total and for broad aggregates over the period from 1994-95.

Table 8.1: Telstra's Capital Expenditure from 1994-95 to 2001-02 (\$m)⁷⁸

	1995	1996	1997	1998	1999	2000	2001	2002
Switching	634	659	768	756	626	647	735	661
Transmission	335	486	579	584	602	693	429	416
Customer Access	666	920	848	681	864	1285	971	891
Mobile Networks	526	342	330	340	616	628	390	255
Broadband Network	60	282	459	97	34	30	33	38
International Infrastructure	112	197	119	143	138	125	100	233
Other⁷⁹	Na	Na	Na	1223	1424	1422	1414	1112

⁷⁵ NECG's Henry Ergas told the Productivity Commission that the Commission's approach to local call resale is 'manifestly at odds with *ex ante* financial capital maintenance ... with the ability of investors to recoup investments prudently made' (Evidence to Productivity Commission, 16 May 2001, p. 207).

⁷⁶ BIS Shrapnel, *Telecommunications Infrastructures in Australia 2001*, prepared for the ACCC, July 2001.

⁷⁷ Productivity Commission, *Telecommunications Competition Regulation*, Report No. 16, September 2001.

⁷⁸ Figures are for operating capital expenditure including capitalised interest. The figures were sourced from Telstra's annual reports. As reported by Telstra, these figures are not corrected for either increases in the CPI or declines in the telecommunications capital price index.

⁷⁹ Includes capital expenditure on capitalised software and 'other' items.

Capital Expenditure	3238	3904	4248	3824	4366	4830	4144	3606
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Source: Various Telstra Annual Reports

Overall, the analysis and the associated commentary reveals the following:

- Telstra has invested heavily in all infrastructure over the period 1994-95 to 2000-02, including in the PSTN (loosely the first three rows of Table 9.1).
- The amount of capital expenditure has fluctuated, with large increases (1995-96 and 1999-00) and falls (1997-98, 2000-01 and 2001-02).
- These fluctuations can largely be attributed to the commencement and completion of large capital expenditure projects, and this is reflected in Telstra's commentaries.
- More recently, the decline in capital expenditure has been influenced by Telstra's more 'disciplined' approach to investment, reflecting investor perceptions about the need for continued healthy increases in cash-flow and dividend growth, its marginal loss in market share in some service segments and a more subdued economic climate in the telecommunications sector, both locally and internationally.

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, in the Commission's view, it would not be prudent to abandon the entire PSTN just because one part of it was not profitable or not as profitable as some other parts. Only if the entire PSTN were in deficit would abandonment of it be a consideration. As the PC report also notes:

...access pricing is only one factor that shapes the returns to the investment made by access providers in telecommunications infrastructure.⁸⁰

The Productivity Commission's Report consistently recognises the high levels of investment occurring in the PSTN, and does not identify any harm to PSTN investment from the regulatory regime, at least while Telstra maintains such a strong retail market position.

A further investment-related issue is the effect of the ADC on the build/buy choice for access seekers. In the Commission's view, access seekers should be faced with an access price reflecting the TSLRIC of providing access on a forward-looking basis. 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 to buy.

The addition of an ADC could also potentially distort investment incentives in another sense. While the ADC is a contribution to line costs, there is no linkage between the

⁸⁰ Productivity Commission, *Telecommunications Competition Regulation*, Report No. 16, 21 September 2001, p. 397.

total contribution paid by a particular customer and the cost of that customer's line. For example, CBD business customers and those living in relatively low-cost (densely-populated) areas are likely already to meet the cost of their lines through direct line-related charges, and then would be required to make further contributions through the ADC.

That said, the Commission is not aware of how significant this effect would be on the build/buy choice in such areas. It would be expected that the incentives for uneconomic by-pass caused by the ADC would be relatively small compared to other factors which lead to (efficient) infrastructure build in such areas. For example, there are strong incentives to directly connect high-yielding multi-line customers in such areas given the relatively low costs of doing so, particularly where other (utility, transport) infrastructure can also be readily utilised.

Looking forward, Telstra presents a series of arguments that removing the ADC 'must erode Telstra's ability to maintain and renew its network'.⁸¹ 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 argues 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.⁸²

While recognising there is a position of informational asymmetry between itself and Telstra, it is clear that what information there is available does not point to an actual or imminent crisis in PSTN investment, and that no independent assessment agrees with Telstra's pessimistic outlook. It is noted that Telstra has so far not supplied any evidence that supports the claim in its submission on its most recent undertaking that it needs a much higher access prices for the PSTN O/T services 'in order ... to make an appropriate return on its current and future investments'.⁸³

8.3.3 Telstra's legitimate commercial interests

Access pricing must have regard to Telstra's legitimate commercial interests. This is interpreted 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.

Since 2000, the Commission has carried out studies of the profitability both of Telstra as a whole and of the PSTN alone, and has carefully considered other appraisals, including those by industry analysts and by Telstra itself. In the Discussion Paper,

⁸¹ Telstra ADC submission, *op. cit.*, paras 112-26.

⁸² Telstra ADC submission, *op. cit.*, para 126.

⁸³ Telstra, *Telstra's Submission in Support of its Undertakings dated 9 January 2003*.

industry participants were asked to comment on the bearing that Telstra's profitability has for the ADC and the likely impact on profitability of the PSTN.

The 2001 Ovum study⁸⁴ of Telstra's overall profitability concludes that Telstra as a whole earns a rate of return well in excess of its WACC. This is the case whether the WACC used is as contended by Telstra or that determined by the Commission. According to this study, Telstra continues to earn economic rents and its profitability is comparable with that of other highly profitable telecommunications carriers in the region (SingTel and Telecom New Zealand). Further, it is reported to be in a strong position compared with many of its European and US counterparts since the 'dot.com' and telecommunications boom evaporated.

Telstra's own appraisal of its overall profitability, as recently as November 2002, is that it is 'sensational'.⁸⁵

These overall assessments are also reflected in the performance of the PSTN. Telstra noted in its 1999-2000 Annual Report (p. 80) that its traditional telephony products:

have traditionally generated most of our operating profit and have been more profitable than our non-telephony products such as data

This profitability has also been noted by industry analysts such as Macquarie Research Equities⁸⁶ that notes that 'fixed line services provide the bulk of Telstra's cash flow' and predicts for 2003 that 'cash flow from basic telephony will continue to be strong'.

Further, RAF accounts submitted by Telstra to the Commission have been used to assess the profitability of the PSTN for 1999-2000, 2000-01 and 2001-02. The profit proxy found is essentially an 'economic profit' given that the costs include a return on capital employed, evaluated at Telstra's WACC.⁸⁷ The analysis indicates that the PSTN has produced large economic profits in each of the three years studied.

The issue is not just whether Telstra's PSTN is overall profitable (implying that profits elsewhere exceed the AD) but also whether the reduction or removal of the ADC would affect that profitability sufficiently to make the margin uncomfortably close. In the Discussion Paper, the Commission estimated that, given that the flow of traffic is relatively invariant with the retail prices charged, a change in the ADC of 0.1cpm fully passed on in prices would change Telstra's revenue by \$50 million and, therefore, that

⁸⁴ Ovum, *Telstra Financial and Economic Profit Analysis: A Report to the ACCC*, 31 October 2001. This is available on the Commission's website.

⁸⁵ Dr Ziggy Switkowski, *Address to Australian Telecom's Telco Leaders Lecture Series*, Sydney, 26 November 2002.

⁸⁶ Macquarie Research Equities, *Another Tough Year Ahead for Telcos*, 17 January 2003, p. 4 and 13.

⁸⁷ This is not strictly an 'economic profit' analysis since the RAF data are on an historic cost basis and need to be adjusted to put them on an economic basis.

the complete removal of the ADC of 0.57cpm in 2001-02 would have reduced Telstra's revenues by a maximum of \$285 million.⁸⁸

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, JPMorgan⁸⁹ has 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 greater than estimated by the Commission, claiming the adverse impact on Telstra is underestimated by over 50 per cent.⁹⁰ Telstra is concerned that lower access prices for the PSTN O/T services could induce access seekers to offer local calls through combining PSTN O/T services rather than through the LCS.

The Commission considers there is sufficient economic profit easily to cover even the highest estimates of the loss in revenue if the ADC were removed completely. That said, however, the Commission recognises that any abrupt or immediate removal of the ADC from access charges may result in a burden to Telstra to the extent that it may have made various business decisions based partly on the assumption that it will continue to receive an ADC, if only in the short-term. For example, any abrupt change to the ADC may not be consistent with facilitating a regulatory environment in which long-term decisions can be made with relative certainty around the pricing parameters which should be used. This means such changes, while desirable in their own right as noted above, may need to be implemented in a more gradual way. The Commission sets out some possible approaches to the gradual removal of the ADC further below.

In terms of the statutory (reasonableness) criteria, the Commission notes that it may have regard to other matters under the reasonableness provisions (section 152AH(2)) and therefore considers the maintenance of a more stable regulatory environment in order to facilitate efficient long-term investment planning and the fair balancing of access provider and access seeker interests are aspects that are relevant to this decision.

8.3.4 The promotion of competition

Broadly, the Commission regards anything that promotes (damages) competition, everything else being equal, as enhancing (damaging) the LTIE.

⁸⁸ 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.

⁸⁹ JPMorgan, 'Telstra Corporation Ltd Still Some Residual Regulatory Risk for Telstra', Asia Pacific Equity Research, 11 April 2003.

⁹⁰ 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.

The current operation of the access regime has allowed entry into downstream markets for IDD, STD and FTM calls and local calls. This entry has occurred in the context of Telstra enjoying large margins on most of these services. While these margins may have been reduced over time, they remain large, and their maintenance implies that Telstra has advantages of incumbency, is able to bundle across all services and benefits from natural monopoly attributes (vertical economies) in downstream production components.⁹¹

The Discussion Paper 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 – as it appears – Telstra’s downstream managers pay nothing for PSTN OT when using it as a component in producing IDD, STD and FTM calls, increasing the access price to their rivals further above the direct costs of provision would only serve to increase the extent of non-neutrality that is inherent in the existing arrangements.

Telstra’s submission⁹² argues 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 position of access seekers is unchanged (higher access charge exactly matched by higher retail price). 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 and the increase in retail prices while access seekers lose by the difference between the increase in the ADC and the (smaller) increase in retail prices.

8.3.5 Effect of price control regulations on the AD

As noted above, the Government has stated its intention is to allow Telstra to increase line rentals sufficiently over five years (beginning 2002-03) to eradicate the AD entirely. This point was underlined by the Minister⁹³ when he observed that:

⁹¹ ACCC, *Review of Telstra Price Control Arrangements – An ACCC report*, February 2001, Chapter 5. The Commission has also undertaken imputation testing, using information supplied by Telstra as a part of its RAF accounts, that supports the view that Telstra is earning positive margins.

⁹² 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, paras 129-35.

⁹³ Senate: Environment, Communication, Information Technology and the Arts Legislation (ECITA) Committee, *Consideration of Supplementary Estimates*, 20 November, 2002, p. 10.

If you are going to fix the problem of the access deficit and get your interconnect prices down by about a third, you need to gradually rebalance.

Telstra has been given greater freedom in the retail price controls for 2002-03, 2003-04 and 2004-05 to facilitate this outcome. It is now allowed to increase line rentals by an amount equal to the change in the CPI plus 4 per cent per annum ('CPI + 4'), a rate of increase designed to allow elimination of the AD by 2006-07.⁹⁴

This discussion has highlighted the difficulty with justifying the continued need for an ADC on PSTN access charges, however, it is also noted that the removal of the ADC should have regard to, where possible, Telstra's legitimate business interests and maintaining a relatively stable regulatory environment.

8.4 Possible changes in the ADC

There are a variety of options available to the Commission in terms of its approach to the ADC. For example, the Commission could:

- Increase the ADC now through one or both of allowing a 'local call surcharge' and allocating a higher percentage of the AD to calls than to minutes. If this were to entail the full local call surcharge and a 100:0 allocation rule, this would take the price for 2002-03 to over 3 cpm.⁹⁵ There would still be a gradual phasing out of the ADC through CPI + 4, but because of the immediate jump, it would mean considerably higher ADCs over several more years, with the ADC not being eliminated until 2009-10 at earliest.
- Continue the ADC as on the 'present basis' but with the recognition that (i) it is somewhat higher than anticipated because of the higher line costs in PIE II than suggested by either PIE I, the n/e/r/a model or the RAF, and (ii) that it will nonetheless gradually reduce because of the greater freedom in the retail price control arrangements, but that this will take much longer than the Government expected; again not until 2009-10 at the earliest.
- Remove the ADC over a phasing out period – for example, over the three years 2003-04 to 2005-06, with no ADC from 2006-07. This could be achieved by taking a more holistic approach to the AD and incorporating line revenues from other services, such as ISDN. This would lead to a significant initial reduction in the ADC and then a gradual phasing out of the ADC through CPI + 4 by the end of 2005-06.

⁹⁴ However, as discussed below, the higher line costs estimated by the PIE II model compared with the n/e/r/a model (and compared with the RAF and PIE I) mean that the Governments allowance of CPI + 4 per cent annual price movements will not result in the ability to achieve this aim.

⁹⁵ In Telstra's most recent undertaking it is prepared to set access prices for the PSTN O/T services at no more than 1.7 cpm, implying total AD-related elements of about 0.9 cpm. Telstra's undertaking therefore constitutes an increase of about 0.3 cpm in the 'ADC' component.

- Other options are also available to phase-out the ADC over this period which do not strictly rely on a redefinition of the ADC and which are not reliant on a nexus having to be established between the ADC and the AD. This approach sees a more gradual reduction to the ADC.

Each of these options is considered below in turn.

8.5 Increasing the ADC

Proposals by Telstra to recognise a ‘local call surcharge’ and to allocate all of the AD to calls would both result in an increase in the ADC.

8.5.1 Local call surcharge

The basis of a local call surcharge is the following. Telstra claims that the Commission ‘allocates’ part of the AD to local calls but that the ceiling on local call price means that it cannot recover the amount allocated. This shortfall (the ‘local call deficit’) is then routed back to non-local calls and this amount is called a ‘local call surcharge’.

This recovery should be ‘effected by means of a surcharge’. Telstra also argues for a surcharge on ‘competitive neutrality’ grounds previously considered.

All other parties opposed the surcharge on various grounds including that the issue has to be seen in terms of overall returns from the PSTN and that these clearly appear to be positive (e.g., PowerTel); that empirically there was not in fact a local call deficit (e.g., Optus and AAPT); that Telstra voluntarily does not charge the maximum amount possible for local calls (e.g., ATUG), and various refutations of the competitive neutrality arguments.

The Commission has specific concerns in relation to allowing a local call surcharge, which were outlined in its discussion paper on the ADC.⁹⁶ The Commission is therefore not persuaded that it should deviate from its previous practice of not including a ‘local call surcharge’ in the charge for PSTN OT.

8.5.2 Higher allocation to calls than minutes

The ADC is currently determined as the mid-point between the results of apportionment of the AD to non-local call minutes and the apportionment to non-local calls. This is the 50:50 rule. Telstra has previously argued on efficiency grounds for a greater reliance on calls than minutes in determining the ADC, in the extreme a 100:0 rule. The Commission raised the prospect of a 20:80 rule, reflecting Telstra’s retail pricing structure for non-local calls (i.e flagfall and per minute charges). While dependent on the absolute size of the AD, the difference between 20:80 and 100:0 is anywhere between about 0.1 cpm and 0.3 cpm.

⁹⁶ ADC discussion paper, op cit, chapter 9, pp. 30-32

In its submission Telstra argues that the entire AD should be allocated to calls or flagfall, and has produced new empirical evidence and more sophisticated Ramsey-Boiteux pricing analysis to support its position. Put simply, Telstra's case is based on its contention that the demand for flagfall is perfectly inelastic and that it therefore can bear a high price without efficiency cost.

The other parties that commented on this issue broadly favoured a greater allocation to minutes than to calls, *inter alia*, questioning the empirical evidence that call demand is more inelastic; relating the recovery issue to the USO; suggesting conformity of wholesale pricing with Telstra's retail pricing structure and commenting on the adverse effect on LTIE of an increase in the charge for access. Macquarie Corporate Telecommunications argued that the AD should be retrieved on a per-line basis.

In the Commission's view there is no compelling empirical evidence to support a greater allocation to calls. Many of these reasons for this were explored in its discussion paper on the ADC⁹⁷ and Telstra more recent evidence has not changed this position.

8.5.3 Assessment against the criteria

Assessed against the LTIE and reasonableness criteria, any proposal to increase the ADC by, for example, incorporating a local call surcharge or allocating the AD to calls appears unacceptable on all criteria. This is evident from the previous discussion where the continued imposition of the currently defined ADC is becoming more problematic under the relevant criteria and that, if anything, the appropriate regulatory policy response is to determine the means on how it can be reduced or removed over a defined period. In terms of any increase to the ADC, this is seen to raise the following concerns under the relevant criteria:

- Increasing the ADC would drive a greater wedge between retail price and the cost to the economy of producing each of STD, IDD and FTM calls, and would clearly increase inefficiency in use of the PSTN.
- Telstra does not appear to require a higher rate of return in order to induce it to continue investing heavily in the PSTN. To the extent that higher retail prices reduced demand for PSTN services, investment requirements could be reduced below efficient levels. The build/buy choice of access seekers would be further distorted by having to face an access charge even further above efficient costs.
- It is clear to the Commission that a higher ADC would only serve to increase Telstra's economic profits and is therefore indefensible by appeal to legitimate commercial interests.

⁹⁷ See ADC discussion paper, op cit, chapter 7, pp. 25-26

- The impact on competition would either be neutral (retail prices would rise by the same amount as the ADC) or detrimental (retail prices rise less than the ADC, squeezing access seekers' margins).

Further, the increase in the ADC would be contrary to the Government's aim of removing the AD and the ADC by 2006-07 – the access prices for the PSTN O/T services would increase immediately and would not be eliminated as quickly; perhaps taking to 2009-10 to be eliminated completely.

8.6 Continuing with the currently defined ADC

The AD could continue to be defined as detailed in section 8.2 and accordingly the ADC would remain as it is at present. Given previous modelling work by the Commission, using the n/e/r/a model, it was anticipated that on this basis the ADC would be phased out over a five year period (commencing in 2002-03) which was broadly consistent with current price cap settings, as noted above. However, as noted in chapter 6, the Commission has used the PIE II model for the purpose of informing itself in relation to determining model price terms and conditions. Using the PIE II model, which has substantially higher average line costs and brings to account greater costs of retailing lines than the n/e/r/a model, the AD is not phased out in this same five year time-frame. Specifically, using the PIE II model as the basis for determining the ADC, it is now anticipated that the AD, and therefore the ADC, will not be phased out until 2009-10 at the earliest.

8.6.1 Assessment against the criteria

A continuation of the current ADC approach, with the ADC eventually being phased out in 2009-10, appears to meet the LTIE and reasonableness criteria in some respects:

- There would continue to be a gap between the retail price and the economic cost of producing IDD, STD and FTM calls, however, this gap would be reduced over time and be removed completely by 2009-10.
- Use of the current approach to the ADC would be likely to continue to have a negative impact on competition in the downstream markets for IDD, STD and FTM calls. As noted above, this is because access seekers face an ADC but Telstra does not and therefore access seekers are not able to price as competitively as Telstra (or earn economic profits) in the markets for these services. However, as the ADC is progressively reduced, the lack of competitive neutrality would also be reduced. Further, continuing with the current approach (at least for a period of time) may assist in ensuring competitive neutrality, particularly where some access seekers are currently out of contract while others are stranded on current contracts.
- While it would appear to the Commission that an ADC is not necessary to ensure ongoing investment in the PSTN or the legitimate commercial interests of Telstra (see sections 8.3.2 and 8.3.3), continuation of the current ADC approach does meet these criteria to the extent Telstra may have previously

relied on regulatory decisions that have incorporated an ADC in making its business planning decisions.

- There could also be implications for the extent of bypass of the LCS, which while not necessarily incompatible with the LTIE, is a new issue which the Commission would need to give separate consideration (see Chapter 12 below).

This said, eliminating the ADC by 2009-10 at the earliest would not be consistent with current price control settings which have been designed to phase out the AD by 2006-07. Further, such an earlier removal of the ADC would mean the existing distortions to competition and investment which are evident would be addressed more quickly. Finally, the other arguments regarding regulatory certainty noted above could still be addressed with a more rapid phase-out, say by 2006-07 than that implied by the current PIE II projected outcomes, which would take to 2009-10.

It is also noted that the Discussion Paper did not elicit any responses in favour of retaining the existing approach to the ADC. On the one hand, Telstra continued with its long-standing claims regarding the local call surcharge and the allocation of the entire AD to calls, both entailing an increase in the ADC. On the other hand, the other interested parties argued for either the removal or reduction of the ADC.

8.7 Removing the ADC over a shorter period

There are two main ways of removing the ADC over a shorter period; redefining the ADC to incorporate other line revenues which use the CAN, or alternatively taking the view that the current ADC should in any case be removed more quickly because of concerns with competition and efficiency objectives noted in the previous section. This latter approach would also involve a breaking of the nexus between the AD and the ADC.

8.7.1 Redefining the ADC

In contrast to continuing with the current approach to the ADC, it could be re-defined in such a way that it would be phased out over a shorter period. This would require taking a more 'holistic' approach, by considering the CAN more broadly to include ISDN, leased lines and its other users. The effect of this would be to bring to account substantially more revenues than costs, thereby reducing the AD.

Under this specification and using the PIE II model, which incorporates more recent estimates of line and retail costs, the normal erosion of the AD under CPI + 4 per cent, given increases in line rental yield, are likely to suffice to bring the AD and the ADC down to zero by 2006-07. Such a change in regulatory policy approach would see, however, a substantial fall in access prices in the initial period (as compared to current commercial agreements which the Commission understands are on average above the 1.3 cents per minute established by the Commission as reasonable in May 2001). The access price would then transition to a price based only on conveyance costs by 2006-07.

In essence, the difference between this and the continuing with the current ADC approach is the time-frame over which the ADC is phased out. This approach reduces the phasing out time-frame by approximately three years.

The actual impact of this change on the AD, however, is rather unclear at this stage since the net line revenues from ISDN and leased lines cannot be estimated with a sufficient degree of precision from data currently available from either the RAF or the PIE II model.

The approach of broadening the definition of the ADC had been recommended by Optus and by AAPT in their submissions to the Commission's paper on *Future Access Pricing Approaches for PSTN, ULLS and LCS*⁹⁸ as well as the more recent ADC discussion paper. Indeed, all of the parties making submissions except Telstra and Primus supported the broadening of the definition of AD to include net revenues from other line services like ISDN lines, and in some cases to include net revenues from call services as well.

8.7.2 Removing the current ADC over a shorter period

There are also grounds for not making any significant changes to the definition of the ADC as this may unduly disrupt previous and existing plans of access providers and seekers, but that nonetheless, the impact of the ADC on efficiency and competition objectives is having a continuing distortionary effect which needs to be addressed in a reasonable timeframe. As noted above, the case for any ADC is not compelling against the LTIE criteria, but this does not mean it can be removed immediately or reduced substantially without certain wider impacts on market participants.

In particular, Telstra's legitimate business interests in being able to rely on the Commission's previous access pricing approach, which accepted an ADC, for its recent and prospective business planning suggests a phasing out approach would be appropriate. Similarly, some access seekers who have current contracts extending to at least 2004 or 2005 may find themselves "stranded" at significantly higher rates if immediate changes to the ADC were made.

This leaves the issue of the transition period to be determined. In this regard, it is relevant that the current price cap period envisages sufficient rebalancing to line rentals would be possible to remove the AD by 2005-06, on the basis of previous average line cost estimates. As well, as noted above, any redefinition of the ADC would also result in the AD being removed by the same time frame.

It should be noted that the prime issue is the removal of the ADC without particular regard to whether the AD can also be removed at the same time, given that there seems little compelling reason to support an ADC as a matter of principle, which is keeping access rates high. The timing of the phase-out period, however, would be informed by

⁹⁸ ACCC, *Future Access Pricing Approaches for PSTN, ULLS and LCS*, Discussion Paper, September 2002.

other factors, such as the objectives of the current price cap regime to enable Telstra to rebalance sufficiently its line charges towards costs and thereby remove the AD. It happens to also align with a phase-out period that would result with a redefined AD.

8.7.3 Assessment against the criteria

In relation to the LTIE and reasonableness criteria, the same points as made above in section 8.6.1 hold for this possible approach to the ADC, except that as the ADC is phased out more quickly, a fully efficient and competitive outcome is achieved more quickly. Specifically:

- There would continue to be a gap between the retail price and cost to the economy of producing IDD, STD and FTM calls, however, this gap would be reduced over time and be removed completely by 2006-07.
- A reduction in the ADC over a shorter time-frame would not harm ongoing investment in the PSTN or the legitimate commercial interests of Telstra in an economic profit sense (see sections 8.3.2 and 8.3.3). However, to the extent it changes the regulatory parameters on which Telstra may have previously relied, this may have some impact on the legitimate commercial interests of Telstra – although the 3-4 year phase-out is designed to allow Telstra and access seekers a sufficient period to adjust to this revised policy approach.
- Use of the current approach to the ADC would be likely to continue to have a negative impact on competition in the downstream markets for IDD, STD and FTM calls. However, as the ADC is phased out over a shorter time-frame, competition will be promoted earlier.
- Competitive neutrality may not be assisted by the earlier removal of the ADC, particularly where some access seekers are currently out of contract and others are stranded on current contracts, however, again the 3-4 year phase-out period being contemplated under this approach suggests this is unlikely to be an issue.
- There could also be implications for the extent of bypass of the LCS (see chapter 12).

Phasing the ADC out by the beginning of 2006-07 would, however, also be consistent with current price cap settings.

8.8 Balancing the LTIE and reasonableness criteria

As can be seen above, there are advantages and disadvantages, in terms of satisfying the LTIE and reasonableness criteria, with either continuing to use the current ADC approach or re-defining the AD to remove the ADC over a shorter time-frame. For example, the interests of Telstra and some access seekers are likely to be better met by the current ADC approach, at least to the extent Telstra and access seekers have previously relied on the past definition (e.g. in arriving at long-term PSTN service supply agreements). This said, competition and other efficiency outcomes will likely

be promoted by removing the ADC from PSTN access charges more quickly or even immediately.

The Commission considers, however, that using the existing ADC but phasing it out more quickly than would otherwise be the case under the current ADC approach better balances the various criteria. This approach involves establishing initial access prices which are slightly higher than those that would be established under the current ADC approach but which transition, using a glide path, to an access price based solely on conveyance or TSLRIC costs by 2006-07 – this is the same time-frame that would apply if the ADC was redefined and reduced as noted in 8.7.1 above. In effect, such an approach would result in a higher access price being paid in the short-term, with the trade-off being a lower access price being achieved earlier than otherwise would be the case had the existing ADC approach been continued.

The Commission notes that under this approach even though the access prices would initially be higher than if calculated on the basis of the current ADC, they would still be lower than the access prices currently negotiated commercially or previously determined by the Commission.

This alternative transitioning approach effectively takes into account the competing interests posed by the LTIE and reasonableness criteria and endeavours to balance them, taking into account other factors such as the current price control objectives of phasing out the AD by 2006-07 and the need to maintain a relatively stable regulatory environment.

Initially this approach places a greater weight on the interests of Telstra as well as access seekers who have entered long-term contracts with Telstra. The Commission considers it important to recognise these interests given the nature of the telecommunications industry. A significant change in regulatory policy, which would occur if the AD was re-defined or removed immediately, without sufficient indication of such a change could impact negatively on Telstra and these access seekers. However, the Commission notes that over time the weight placed on this criterion necessarily diminishes as Telstra and the access seekers are able to factor into their decision making processes the changed regulatory landscape.

The approach results in access prices that are initially slightly higher than what would exist under the current ADC approach (see Chapter 9, below). This is because some allowance needs to be made for the fact that access prices will not have any ADC element in later periods and that this will occur earlier than otherwise (by 2006-07). In these later periods greater importance is placed on promoting competition for the downstream IDD, STD and FTM services and other efficiency objectives. Basing access prices on efficient forward looking conveyance costs after a relatively short transition period will serve to promote competition and efficient investment and therefore the main tenets of the LTIE criteria.

8.9 Conclusion

At the time of its original decision regarding the AD the Commission was concerned about the possible long-term impact of the access regime on investment and profitability, and on balance allowed an ADC while recognising its adverse effects. However, the Commission has always maintained that there is a possibility that the AD might not exist if examined on an aggregate PSTN or fixed-network level. This means that, even if there is a shortfall between line costs and line revenues for PSTN services, this is more than made up by revenues from other services using the CAN and other elements of the fixed-line network.

Since then, work by Commission and consultants has raised questions about the underlying premises of the Commission's qualified acceptance of an ADC. Evidence available to the Commission suggests that there is sufficient economic profit to easily cover even the highest estimates of the loss in revenue if the ADC were completely removed.

Overall, the Commission considers that, while there is a case for removing the ADC, there is some merit in phasing out the ADC in a structured way and over a well-defined period of three to four years. This would balance the competing interests in the LTIE and reasonableness criteria as well as promoting a more stable regulatory environment for both Telstra and access seekers. Further, such an approach would also continue the steady reduction in the access prices for the PSTN O/T services that began in 1997, with the achievement of smooth transition to a PSTN O/T access price based solely on conveyance cost in 2006-07.

9 Draft model access prices for the PSTN O/T services

9.1 Network costs

As with the n/e/r/a model before it, the PIE II model separately calculates conveyance and line costs. Line costs are the costs of carrying a call over the customer access network ('CAN') to the PSTN and are calculated for the purposes of calculating the access deficit contribution ('ADC'). The recovery of the ADC is not part of a cost of access to the PSTN, however, for the reasons set out in Chapter 8, it is included in the PSTN charge.

The conveyance costs are the true TSLRIC of supplying the declared PSTN service. They are the costs of carrying a call from the CAN to the point where the call exits the PSTN. The tables below provide cost estimates which are based on the Commission's favoured inputs as discussed in Chapters 7 and 8.

9.1.1 Conveyance cost

The following Table outlines the flagfall and per-end-minute-of-use (EMOU) conveyance costs:

Table 9.1

figures in ¢/EMOU	2002/03	2003/04	2004/05
Call conveyance flagfall cost	0.29	0.28	0.28
Call conveyance per-EMOU cost	0.66	0.63	0.63

9.1.2 Line cost and the ADC

Unlike the n/e/r/a model, which calculates line costs on a per-line basis and then aggregates these for the purposes of calculating the ADC, the PIE II model calculates the total costs of the CAN directly for the purposes of the ADC calculation. Line costs are then combined with universal service obligation ('USO') funding, retail costs and line rental revenue, as well as the appropriate allocation rule (flagfall v per-EMOU) to calculate the ADC.

The following Table outlines the flagfall and per-EMOU ADC:

Table 9.2

figures in ¢/EMOU	2002/03	2003/04	2004/05
ADC flagfall cost	1.31	1.09	0.82
ADC per-EMOU cost	0.17	0.14	0.11

9.2 Wholesale costs

As discussed in Section 5.1.5, regulatory criteria dictate that PSTN wholesale costs should be recovered over all PSTN EMOU. Based on the Commission's preliminary estimates (and using information supplied by Telstra), the wholesale costs amount to 0.002 ¢/EMOU.

9.3 Headline PSTN costs

The above costs (other than wholesale costs) result in the following PSTN headline costs:

Table 9.3

figures in ¢/EMOU	2002/03	2003/04	2004/05
Conveyance (TSLRIC) cost	0.73	0.70	0.70
ADC per-EMOU	0.50	0.41	0.31
Total PSTN O/T cost (headline rate)	1.23	1.11	1.01

9.4 Indicative rates

The approach proposed by the Commission, as noted in section 8.8 above, which follows discussions with Telstra, results in access prices that are initially higher than what would exist under the current ADC approach, noted in the PSTN O/T costs above. This is because some allowance needs to be made for the fact that in later periods access prices will be lower than what would occur under the current ADC approach and that the ADC will be removed earlier than otherwise (by the beginning of 2006-07). In these later periods, the Commission has placed greater importance on promoting competition for the downstream IDD, STD and FTM services and other efficiency objectives. Access prices based on efficient forward looking conveyance costs will serve to promote competition and efficient investment.

The Commission's proposed approach also recognises the reality of existing levels of commercially agreed access prices and reflects the extent of rebalancing allowed under the current retail price control arrangements (which have been designed for the purpose of eliminating the AD within a similar period).

In addition, such an approach does not countenance access charges being higher than relevant costs (including an ADC) overall, but notes that in the early period this is the case which is then offset by lower charges in the later periods.

Such an approach, is dependent, however, on Telstra making a public commitment that it will not seek to claim an ADC in PSTN access charges after 2005-06. In the absence

of such a commitment, given the Commission’s views as to the distorting effects of the ADC over time and its other views about how an ADC should be determined, it is likely that it will reconsider its more gradual phase-out approach and seek to formally re-define the ADC in a way which leads to lower initial PSTN charges.

Therefore, the Commission’s preliminary view is that this arrangement is compatible with the LTIE and reasonableness criteria. As such, it would provide industry with the added benefit of increased certainty which should assist in commercial negotiation and reduce regulatory costs as was intended by Government when introducing the indicative or model price provision.⁹⁹

Using this approach the indicative access prices for the PSTN O/T services on a headline rate basis are as detailed in Table 9.4 with access prices being solely based on conveyance costs by 2006-07.

Table 9.4: Draft model access prices for PSTN O/T services*

Year	Model access price (cpm)
2003-04	1.2 – 1.25
2004-05	1.1 – 1.15
2005-06	0.9 – 1.0

⁹⁹ See Commonwealth, *Telecommunications Competition Bill 2002 Explanatory Memorandum*, House of Representatives (2002), p. 39.

* Note these are headline rates. Actual charges in practice are typically disaggregated by flagfall and usage components and by geographic area (CBD, metro, regional and remote areas). The Commission would expect these to be specified either in undertakings or as part of bilateral agreements.

10 ULLS – network and non-network costs

In determining model access prices for the ULLS, the Commission has taken two particular cost elements into account – network costs and ULLS-specific costs. Each of these are discussed below in turn.

10.1 Network costs for the ULLS

10.1.1 Model used to determine network costs

As discussed in Chapter 6, and subject to the qualifications therein, the Commission proposes to use the PIE II model to determine the ULLS network costs.

The modelling approaches for determining ULLS network costs are quite different between the PIE II model and the n/e/r/a model. Specifically, the n/e/r/a model had to be modified in a number of ways to determine the ULLS network costs – as it was designed to determine network costs for the PSTN O/T service, not lower levels of the network such as the ULLS.

Using the PIE II model means such modifications are unnecessary as the model concurrently calculates PSTN and ULLS network costs taking into account the difference between these services. As Telstra has noted in its submission relating to methodology for determining core service access prices, the PIE II model derives the ULLS network costs by excluding the cost of PSTN line cards and radio access technologies from total PSTN CAN costs.¹⁰⁰

The Commission notes that the PIE II model derives network costs which are significantly lower for the CBD and metropolitan areas and higher for regional and rural areas than the n/e/r/a model. At this stage, the Commission has not explored the model in sufficient detail to provide definitive reasons for these differences. Possibly the PIE II model is more reflective of a forward looking network configuration, and in this regard contains updated information, or more generally it may use a better and more sophisticated disaggregation approach.

In accepting the PIE II model for the purposes of determining model prices for the ULLS, the Commission notes it is largely accepting Telstra's assumptions about optimal network architecture and the way in which network costs should be determined. As discussed earlier, this position is based on the Commission's preliminary assessment of the PIE II model and may be subject to change once a thorough and comprehensive audit of the model has been undertaken, to the extent this is considered necessary in assessing Telstra core service undertakings.

¹⁰⁰ Telstra, *Telstra's Submission in relation to the Methodology used for Deriving Prices Proposed in its Undertakings dated 9 January 2003*, February 2003, Annexure A p. 13.

10.1.2 Inputs used to determine network costs

Chapter 7 details the inputs which the Commission considers are appropriate for the purposes of determining model terms and conditions for PSTN O/T and the ULLS. As noted in that chapter, the Commission proposes to use some of Telstra's inputs for the purposes of informing itself in relation to indicative ULLS costs. This said, there are some inputs for which the Commission will not use Telstra's assumptions, these are:

- the trench sharing assumptions in new estates;
- the WACC parameters; and
- the network planning costs.

10.1.3 De-averaged prices

As a result of uniform or average prices for retail telecommunications services, the practice of relating prices to costs is sometimes known as de-averaging even though new services like the ULLS do not have an existing average price to de-average.

As previously noted by the Commission in its *Pricing of Unconditioned Local Loop Services – Final Report*, application of a de-averaged approach is consistent with the Commission's standard approach to access pricing that relates to the direct costs of service supply and promotes economic efficiency of infrastructure use and investment.¹⁰¹ For reasons also detailed in that report the Commission, therefore, proposes to use a de-averaged approach.

10.1.4 No allowance for the AD

The Commission has previously determined that the access price for the ULLS should not include an ADC.¹⁰² This is because the Commission believes that services that do not need to be provided in conjunction with loss-making lines should not be recovering the AD.

While the Commission has allowed an ADC to be recovered in the access prices for PSTN O/T services this is because these services are provided over lines that are forced, by the retail price controls, to be sold at a loss. However, the ULLS involves the lease of lines that recover their costs so that conversion of a PSTN line to an ULL line would ensure that such a line was no longer provided at a loss.

As noted in the Commission's report on *Pricing of Unconditioned Local Loop Service*, it does not consider arguments previously submitted by Telstra, that an ADC is necessary for the ULLS to ensure the efficient recovery of costs, as being persuasive.

¹⁰¹ ACCC, *Pricing of Unconditioned Local Loop Services – Final Report*, March 2002, p.18.

¹⁰² ACCC, *Pricing of the Unconditioned Local Loop Services – Final Report*, March 2002, p. 23.

10.1.5 Industry participants' views

Most industry participants' comments in relation to the calculation of ULLS network costs are similar to those expressed in relation to the PSTN O/T services and are essentially summarised in Chapters 6 and 7.

In relation to the possible use of an adjustment factor, Optus contends one should be applied to the overall ULLS access price going forward which captures:

- the reduction in underlying cost over the next three years as a result of efficiency gains due to improvements in technology;
- improvements in the scale of the CAN; and
- operating improvements in specific costs.¹⁰³

Telstra notes in its submission that if application of an adjustment factor is the Commission's preferred approach then it should treat ULLS-specific costs separately from ULLS network costs.¹⁰⁴ It considers these costs are calculated separately from the network costs and are levelised over a three year period due to the large year on year changes in demand. This process has already taken into account CPI and changes in asset costs and demand in future years and as such should not require further adjustments.

10.1.6 Network costs for the ULLS

In accordance with the Commission's approach for estimating ULLS network costs discussed above, the following network costs for bands 1 to 4 are proposed for the purpose of deriving ULLS access prices as part of model terms and conditions:

Table 10.1: ULLS network costs (\$ per SIO per month)¹⁰⁵

Year	Cost – Band 1	Cost – Band 2	Cost – Band 3	Cost – band 4
2003-04	\$3	\$12	\$26	\$144
2004-05	\$3	\$12	\$26	\$143

10.2 ULLS-specific costs

In addition to the ULLS network costs discussed above, the other main component of the ULLS access price is the ULLS-specific costs charge. The ULLS-specific charge is designed to cover costs Telstra incurs exclusively to provide the ULLS to access seekers. Broadly, these ULLS-specific costs comprise:

¹⁰³ Optus submission, p. 8.

¹⁰⁴ Telstra submission, p. 6.

¹⁰⁵ These represent the ULLS network costs for services connected to Network Units (equivalent to an RSS/RSU)

- IT system development and operational costs;
- ULLS connection group costs;
- wholesale management costs; and
- indirect costs.

Of the above costs, the Commission considers that the costs of IT system development and operational costs should be treated as a discrete, once-off expenditure, in addition to the TSLRIC(+) calculation for the ULLS. These capital costs represent the efficient costs that Telstra would incur in establishing its systems for the provision of the ULLS and should be recovered throughout the course of the assumed project life. In contrast, the Commission believes that the ongoing operational and maintenance costs related to the ULLS connection group, wholesale management and associated indirect costs should be absorbed into the operating and maintenance, and indirect cost components of the TSLRIC(+) estimate after the relevant period of the project life. Based on the assumption of a five year project period with a July 2000 start date, this approach effectively means that a ULLS-specific charge should no longer be applicable after the 2004/05 period.¹⁰⁶

The ULLS-specific costs charge as calculated by the Commission is also distinct from the once-off provisioning and additional service charges which Telstra charges to access seekers. The main categories of these charges are service qualification and connection charges. In its previous pricing considerations, the Commission assessed that the overall charge of between \$93 and \$108 for connection as proposed by Telstra appeared roughly in line with Telstra's charges for similar services regarding other products. In addition, the Commission considered that the proposed service qualification test charge of \$6.50 did not appear unreasonable. However, it should be noted that the Commission decided not to require the payment of such charges as a term of access to the ULLS, and stated that access seekers should resolve any disputes in relation to the payment of such charges by negotiation.

10.2.1 Previous examination of ULLS specific costs

In the course of its previous pricing considerations for the ULLS, the Commission engaged the Communication and Media Policy Institute of the University of Canberra and AAS Consulting Pty Ltd (CMPI/AAS) to undertake a review of Telstra's ULLS-specific costs. The consultancy was commissioned primarily to provide advice to the Commission on the reasonableness of the \$11.42 per month/line ULLS specific cost charge then proposed by Telstra (which equates to \$137 per year) at the time of the release of the Commission's August 2000 pricing discussion paper.¹⁰⁷ In addition, the

¹⁰⁶ The treatment of any new capital expenditure after fiscal 2005 in ULLS charges would need to also be considered and whether it would be appropriate to also roll such expenditure into annualised TSLRIC-based rates.

¹⁰⁷ ACCC, *Pricing of unconditioned local loop services (ULLS) and review of Telstra's proposed ULLS charges – Discussion Paper*, August 2000

consultants were requested to undertake an international benchmarking study of ULLS-specific costs.

CMPI/AAS provided a draft report to the Commission on 26 June 2001 that was provided to the parties involved in arbitrations for comment. Following a review of all the submissions, including some which were subject to separate confidentiality conditions, the consultants provided a final report to the Commission on 12 October 2001.¹⁰⁸

10.2.2 CMPI/AAS main findings

CMPI/AAS (the consultants) concluded that Telstra's ULLS-specific charge were considerably larger than could reasonably be justified by the information examined in the review. The consultants suggested several changes to Telstra's ULLS-specific costs estimation model which they believed would lead to a lower, more reasonable estimate. The consultants concluded that the costs associated with ULLS-specific activities were only about 22 per cent of those initially proposed by Telstra.

The following three main factors were examined by the consultants which they argued resulted in a substantial reduction in the charge:

- a significant reduction in the estimated capital expenditure needed for the development of the ULLS IT System compared to Telstra's estimates;
- significant reductions in the estimated operational expenditures as compared to Telstra's estimates; and
- a significant increase in demand levels assumed by the consultants compared to Telstra's estimates.

The details of the adjustments undertaken by the consultants are further discussed in the Commission's *Pricing of Unconditioned Local Loop Services – Final Report*.¹⁰⁹

10.2.3 Commission's previous position on ULLS-specific costs charges

The Commission decided to accept the consultants' report on the review of Telstra's ULLS-specific costs and in particular their reasons for the cost reductions. Essentially, there were two main categories of adjustment to Telstra's model that resulted in the consultant recommending a reduction in the charge for ULLS-specific costs to \$46 on a once-off basis or \$30 on an annual basis. As noted above, these were a reduction in Telstra's estimated costs associated with ULLS-specific costs and higher demand estimates than those submitted by Telstra.

¹⁰⁸ Review of Telstra's ULLS Specific Costs — final report to the ACCC by the Communication and Media Policy Institute of the University of Canberra and AAS Consulting Pty Ltd, October 2001; Review of Telstra's ULLS specific costs – draft report to the ACCC by CMPI/AAS, June 2001

¹⁰⁹ ACCC, *Pricing of the Unconditioned Local Loop Services – Final Report*, March 2002, pp. 40-42.

Increased demand estimates for ULLS

The Commission acknowledged that forecasting demand, particularly for new services such as ULLS, involves a considerable degree of uncertainty, given there are no historical demand patterns or trends.

In deciding, at the time, to accept the consultants' higher demand estimates, the Commission was influenced by the evidence the consultants had received, including demand experienced in overseas markets. Notwithstanding this decision, the Commission noted that demand levels should be monitored and that actual ULLS demand would, of course, be relevant to the setting of charges in the future.

10.2.4 Commission's views on ULLS-specific costs

As discussed above, the two key variables which affect the scale of the ULLS-specific costs charge are the underlying ULLS-specific costs and the demand estimates for the number of ULLS across which these underlying costs are distributed.

Underlying ULLS-specific costs

For the purpose of calculating indicative prices, the Commission considers that it is appropriate to largely adopt the consultants' estimates of underlying ULLS-specific costs.¹¹⁰ As noted above, these cost estimates are derived using various adjustments to Telstra's previously proposed costs and reflect the quantum that would be incurred by an efficient access provider. The costs estimated are very similar to those proposed by Telstra in its latest ULLS undertakings.

The only adjustment to the Commission's previous approach which has been undertaken for the purpose of this indicative pricing exercise is the use of a different ULLS-specific WACC. Previously, the PSTN WACC was applied in deriving ULLS-specific charges. However, in this context, the Commission has decided to calculate a separate ULLS-specific cost WACC.

The ULLS-specific cost WACC contains the same parameters as the PSTN WACC except for the risk-free rate. While the Commission used a 3-year risk-free rate to calculate the PSTN WACC (since the Commission chose to set indicative prices for 3 years), a 5-year risk free rate is used in calculating the ULLS-specific cost WACC. The Commission considers that use of a 5-year risk free rate aligned to the July 2000 starting date is appropriate as it corresponds to the project life for the ULLS-specific systems. This approach is consistent with the Commission's general principle of using a risk-free rate which corresponds with the period over which prices are set. Accordingly, the Commission has used a ULLS-specific cost WACC of 9.59 per cent for the purpose of calculating the ULLS-specific costs charge.

¹¹⁰ This underlying cost will be different to that calculated by the consultant's due to the use of different demand estimates. This effect is related to the sensitivity of ULLS connection group costs to demand - see below.

ULLS-specific costs in the Commission’s view amount to more than \$19.5 million over the five year project life 2000-2005.

Demand estimates for ULLS

Regarding demand estimates, the Commission considers that it is necessary at this point in time to re-evaluate the demand estimates previously used for the calculation of the ULLS-specific costs charge.

The consultants, as part of their review, used a number of different approaches to estimate demand for the ULLS. They considered estimates provided by access seekers and Telstra, independent analysts, information in the public domain, statements by Telstra executives, official ABS statistics, and overseas experience with ULLS take-up. On the basis of this information the consultants estimated that by 2004–05 (i.e. after five years) aggregate demand for ULLS would likely to be in the range of 400 000 to 500 000 services. The consultants recommended that 400 000 would be a reasonable aggregate demand estimate for ULLS in 2004–05.

The consultants’ demand estimates are outlined below.

Table 10.2: Consultants’ demand estimates

Year	Simple demand	Cumulative demand
2000/01	2 000	2 000
2001/02	40 000	42 000
2002/03	100 000	140 000
2003/04	170 000	270 000
2004/05	230 000	400 000

The Commission is cognisant that the actual take-up of ULLS by access seekers has fallen considerably short of the demand estimates made at the time of the consultants’ report. In 2002-03 for example, total ULLS lines in use were around 17,500.

At the same time, the Commission notes that there is a problem of circularity regarding demand estimates and ULLS prices under the current methodology for calculating ULLS-specific cost charges. Under this approach, estimated demand, *ceteris paribus*, is inversely related to the ULLS-specific costs charge, such that reducing the estimated demand used for calculating ULLS-specific costs charges will increase the overall ULLS access price. This increase in the ULLS price, in turn, will have the effect of further reducing the level of realised demand for the service going forward. Thus, the relationship between estimated demand and realised demand, via the ULLS price, has a consolidating effect which, unless addressed, the Commission considers will exacerbate the problem of ULLS take-up for future periods.

To this end, the Commission considers the following revised ULLS demand estimates should be used for the purpose of calculating of ULLS-specific costs charges as part of determining indicative prices for the ULLS.

Table 10.3: Commission’s demand estimates

Year	Simple demand	Cumulative demand¹¹¹
2000/01	1 614	1 614
2001/02	7 886	9 500
2002/03	9 614	17 500
2003/04	43 386	53 000
2004/05	96 614	140 000

These demand figures seek to balance the need to stimulate ULLS take-up through lower ULLS prices and the need for Telstra to legitimately recover its efficiently incurred ULLS-specific costs associated with the provision of the ULLS to access seekers.

The Commission considers that in order to encourage take-up of the ULLS, it is necessary to take a reasonably optimistic approach to demand for ULLS by taking account of where overall broadband demand may be over the next three years, reflecting an appropriate level of broadband take-up and competition. Currently Australia has 4.6 million¹¹² households online with approximately 430,000 of these using broadband services. Therefore, Australia’s level of broadband penetration, on a per on-line household basis, is currently just over 9 per cent. This is in comparison to leading countries such as South Korea and Canada which had broadband penetration as percentage of on-line households at September 2002 in the of order of 48 per cent and 65 per cent respectively. Middle range countries such as Hong Kong, France, Sweden and the USA had penetration levels of between 23 per cent and 28 per cent at September 2002.¹¹³

In this context, if Australia was to achieve *half* the current broadband penetration levels of the leading countries over the next three years, at a penetration rate of more than 30 per cent in that time, then demand of approximately 1.5 million lines would be evident. To put it another way, a broadband penetration rate of around a third would merely serve to close the gap with the middle range countries over that period, which still appears as a modest objective in relative terms. On this basis, the Commission considers ULLS demand of 140,000 lines on a cumulative basis, resulting in a ULLS share of total broadband lines of around 9 per cent, would not be unreasonable.

¹¹¹ This is based on an average connection period for a ULLS being two years.

¹¹² Source: ABS, Internet Activity Australia, accessed at www.abs.gov.au/Ausstats/abs%40.nsf/e8ae5488b598839cca25682000131612/6445f12663006b83ca256a150079564d!OpenDocument.

¹¹³ Source: AC Nielsen

The Commission acknowledges that there is a risk that using demand estimates in excess of actual demand realised may lead to under-recovery of ULLS-specific costs. Equally, however, if demand is realised, Telstra will readily recover its costs. To take account of this uncertainty associated with a relatively new service, the Commission considers that it may be appropriate to apply an adjustment mechanism to the prices at the end of each year, which reflects the difference between estimated and realised demand in each year.

10.2.5 Other parties' views on ULLS-specific costs

Optus states that the ULLS-specific cost charge as part of indicative prices for the ULLS should be based on the previous charge of \$46 per service (once-off charge) as a starting point to which an adjustment factor should be applied.

Optus also argues that in calculating a ULLS- specific cost charge it is appropriate to:

- adopt forward looking efficient costs when deriving capital costs(a quantum of \$300,000 to build a Gateway to ACIF specifications is suggested);
- exclude mid frame and main frame processing costs and associated maintenance processing and labour costs from O&M costs;
- scrutinise automation effects on the skill level and number of staff required in the ULLS connection group going forward;
- exclude product management costs from the access price;
- ensure indirect cost levels related to ULLS-specific costs reflect the high capital cost base of the ULLS and low level of corporate centre cost attributable to the service;
- adopt once-off upfront ULLS-specific costs charge ;
- use demand estimates that include current and forecast broadband customers served by access seekers and current and forecast broadband customers by Telstra over the CAN (including DSL and ISDN customers); and
- adopt a 10 year project life.

For the reasons set out in its submission in support of its core services undertaking dated 9 January 2003, Telstra contends that ULLS-specific costs for the periods 2002/03 to 2004/05 are \$18.67 per SIO per month.

10.2.6 ULLS specific costs charge

For the reasons detailed above, the Commission considers that the ULLS-specific cost charge for the indicative prices for the ULLS should be between \$8 and \$11 per SIO per month for the periods 2003-04, 2004-05 and 2005-06. When coupled with disaggregated network costs, this provides the following indicative ULLS rates¹¹⁴:

**Table 10.4: Draft model access prices for ULLS
(\$ per SIO per month)**

Band	Model access prices	Previous ACCC access prices
1	\$11-14	\$13
2	\$20-23	\$35
3	\$35-\$40	\$39
4	\$80-\$100	\$59

As can be seen, band 1 rates are very similar to those previously determined by the Commission, whereas Band 2 rates are considerably lower, given the significant reduction to network costs in Band 2 (metro) areas evident in the PIEII model. This is the area where the biggest take-up is expected and where the technology is best suited.

By contrast, in regional (band 3) and remote (band 4) areas, network costs are significantly higher than previously estimated. It should be noted, however, that in many band 3 areas and all of band 4, the network configuration is unlikely to support efficient broadband services using digital subscriber line (DSL) technology. Such technology is typically limited to distances of 3.5-4.5 kilometres from an exchange, which makes it unsuitable outside most city and metropolitan areas.

10.3 Conclusion

The Commission's model access prices for the ULLS, combining network and non-network costs, are detailed in Table 10.4. These access prices are reflective of efficient costs (TSLRIC(+)) and importantly are set in such a way as to stimulate demand and competition in areas where DSL technology is most suited (CBD and metropolitan areas). Additionally, the Commission notes that these indicative access prices are based on assumed aggregated demand for this service of 140 000 lines by 2005.

¹¹⁴ As noted above, this may also be subject to an adjustment factor at the end of each year.

PART II – Local carriage service

11 Service description

The LCS is a service for local call resale. That is, for the carriage of telephone calls from customer equipment at an end-user's premises to separately located customer equipment of an end-user in the same standard zone.¹¹⁵ After holding a public inquiry, the Commission declared the LCS in August 1999.

On 17 July 2002, the Commission granted an order providing Telstra with an exemption under section 152AT of the TPA with respect to the supply of LCS in the CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth to take effect on 17 July 2003. The exemption is subject to a number of conditions requiring the provision of information to the Commission in particular circumstances once the exemption takes effect.

At the same time the Commission issued a determination under section 152AS of the TPA granting a class exemption for all carriers and carriage service providers other than Telstra in the same areas as Telstra's individual exemption. This took effect on 31 July 2002 – the date of gazettal. It is not subject to conditions.

The Commission released its most recent pricing principles and indicative prices for the LCS in April 2002.

¹¹⁵ Standard zone has the same meaning as in Part 4 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

12 Appropriate pricing principles satisfying the legislative criteria

Issues surrounding the determination of a price of the LCS in accordance with the legislative criteria have been dealt with extensively by the Commission in the development of prior pricing principles and indicative prices for this service. The Commission's most recent approach is detailed in the revised final report *Local Carriage Service pricing principles and indicative prices* released in April 2002.

The key principles for determining a suitable LCS price contained within the above pricing principles were:

- the use of a retail minus retail costs pricing 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 (i.e. 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.

These principles are expanded upon in turn below.

The use of a retail minus retail cost methodology for determining the LCS price to be paid by access seekers is to ensure compatibility between the LCS price charged to access seekers and the prices that Telstra charges at a retail level, which need to be within the retail price controls faced by Telstra that prevent it from charging any more than 20 cents (or 22 cents including GST) for a retail local call. This recognises the possibility that the TSLRIC, including common costs and an access deficit contribution (TSLRIC++), of a local call may be greater than 20 cents per call. In applying the Commission's pricing approach, Telstra should be indifferent in supplying calls to access seekers for resale or to its own retail customers.

In applying the retail minus methodology the Commission uses an estimate of Telstra's average retail costs rather than its marginal retail costs avoided in supplying LCS services to access seekers. This is to ensure 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.

When the Government introduced the GST, it required Telstra to accommodate any GST that would push the price of a local call above 22 cents (i.e. for calls priced

between 20 and 22 cents prior to the introduction of the GST). On this basis, the Commission considered that where Telstra charged the maximum of 20 cents for a local call after the introduction of the GST (i.e. 22 cents with GST), some of the cost of this (the 'GST accommodation cost') should fall on purchasers of the LCS. The Commission's approach to this is to apportion the GST accommodation cost between Telstra and access seekers in proportion to the wholesale and retail cost shares of the call. This means that Telstra should bear the GST accommodation cost that is related to the wholesale component of the call, and access seekers that which is related to the retail component of the call. Therefore in determining the LCS call price, the average local call retail cost subtracted from the GST exclusive retail local call starting price is reduced by the GST accommodation cost posited to be absorbed on the retail component of the call.

The use of Telstra's unbundled local call prices associated with different line rental offerings for determining the retail starting prices to calculate LCS prices is designed to capture Telstra's standard local call prices free of any cross-subsidisation by other call services such as long-distance calls. This avoids the prospect of 'ratcheting down' of the access price were access seekers to lower their retail local call prices below Telstra's which if matched by Telstra would lead to a lower LCS price in an ongoing process. The Commission did however raise the possibility that Telstra could potentially price squeeze its competitors if it reduced its bundled retail local call prices without offsetting increases in the prices of other call services, and considered revisiting this approach to determining the starting price if evidence of a price squeeze were to emerge. The Commission has investigated this for the purposes of determining the model price terms and conditions for the LCS in this report.

In determining its LCS price the Commission has recognised that it has been the practice of access seekers to take over responsibility for billing retail customers for basic access (i.e. line rental).¹¹⁶ In view of this approach to the supply of the LCS, the Commission has previously taken the view 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.

In accordance with these principles the Commission published the estimates LCS prices shown in Table 12.1.

¹¹⁶ This is reflected in Telstra's latest undertakings, where the undertaking price is only available where access seekers purchase from Telstra retail basic access as specified in its HomeLine Part and BusinessLine Part retail offerings on the terms provided in Telstra's Standard Form of Agreement.

Table 12.1: Indicative LCS call prices February 2002 (GST inclusive)

	Residential	Business
Standard LCS call price with retail discount on line rental	19.26 cents	19.26 cents
Standard LCS call price <i>without</i> retail discount on line rental	13.81 cents	13.81 cents
Neighbourhood LCS call price with retail discount on line rental	14.99 cents	13.49 cents
Neighbourhood LCS call price <i>without</i> retail discount on line rental	9.54 cents	8.04 cents

Possible approaches to projecting LCS prices forward are contained in the Commission discussion paper *Future Access Pricing Approaches for PSTN, ULLS and LCS* released in September 2002. The Commission indicated that its preferred approach would be to make a new estimate of retail costs for a given year, and project retail costs forward for a number of subsequent years using an adjustment factor composed of the change in the Consumer Price Index (CPI) and Total Factor Productivity (TFP).

12.1 Recent developments in the local call services market

Subsequent to the publication of the prices in Table 12.1 above, the Commission has been cognisant of the following developments:

- the availability of new TSLRIC++ estimates of a local call;
- Telstra abolished its neighbourhood call rates for its unbundled offerings;
- related to this, the Commission received a number of complaints from access seekers alleging a price squeeze (also argued in submissions to the discussion paper);
- the Commission has received updated regulatory accounts from Telstra permitting it to consider revised estimates of Telstra's retail and wholesale costs.

In view of these developments, and related issues raised in submissions to the discussion paper, the Commission has been minded to consider the following broad issues for the purposes of arriving at its model price terms and conditions for the LCS:

- whether the TSLRIC++ of a local call is above 20 cents;

- whether access seekers face a price squeeze with LCS prices based on Telstra's current unbundled offerings;
- derivation of revised estimates of Telstra's retail and wholesale costs based on its 2001-02 regulatory accounts.

12.1.1 TSLRIC++ price of a local call

The Commission's preference for the use of the retail minus methodology derives from the expectation that the TSLRIC++ along with retail costs of a local call exceed the maximum price of 20 cents (GST exclusive) that Telstra is able to charge under the price control arrangements.

Telstra has repeatedly indicated to the Commission that it considers that the TSLRIC++ approach should be used to determine the LCS price. Optus, in its submission in response to the discussion paper, indicated that it considered the Commission should use whatever LCS price is lowest as derived on a pure TSLRIC or retail minus basis.

Use of Telstra's PIE II model to estimate the costs of a local call with Commission assumptions indicates that the TSLRIC++ (along with the Commission's estimated retail costs) does exceed 20 cents for 2002-03, but 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 2004-05.¹¹⁷

On this basis the Commission's view is that the retail minus approach be used to estimate the LCS price for 2002-03 and 2003-04. In subsequent years it is likely the TSLRIC++ (plus retail costs) of a local call will be below 20 cents and as such there is no apparent reason why the TSLRIC++ approach should not be considered. This development does however raise the issue of whether it would be necessary to retain the LCS as a declared access service. This issue is discussed further later in the section.

However, to the extent that Telstra is required to continue to price line rental below cost due to the effect of the retail price controls, it will be necessary for the retail minus methodology to be used for calculating a retail discount for line rental or its per call equivalent.

12.1.2 Retail starting price

In its previous use of the retail minus approach, the Commission has considered it appropriate to use Telstra's 'unbundled' retail local call service offerings as a basis for subtracting retail costs to determine suitable LCS prices. These unbundled offerings comprise Telstra's retail local call price for a given line rental absent of pre-selection for Telstra for national long-distance, international and fixed to mobile call services. These presently comprise Telstra's HomeLine Part and BusinessLine Part retail offerings. These contrast to Telstra's 'bundled' offerings which are the retail local call

¹¹⁷ These calculations are based on Telstra's average local call duration.

prices and line rental conditional on preselection to Telstra for national long-distance, international and fixed to mobile call services. Current examples of these are Telstra's HomeLine Complete and BusinessLine Complete offerings.

The Commission has recognised however, that Telstra could potentially price squeeze its access 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. The Commission therefore indicated in its April 2002 pricing principles that it would monitor the market and revisit this approach if it believed there was evidence of a price squeeze.

Under price changes implemented in the latter half of 2002, Telstra abolished the Neighbourhood call rates in its HomeLine and Business Line Part packages but retained them within its bundled offerings.¹¹⁸ This has precipitated a number of complaints to the Commission from access seekers claiming that their ability to compete in the local call market is being compromised. The broad principle of the Commission adopting Telstra's unbundled offerings to determine the retail starting price has similarly been challenged by access seekers in submissions.

In order to investigate whether access seekers are facing a price squeeze as a result of Telstra's pricing of its unbundled vis-à-vis its bundled pricing the Commission has performed an imputation analysis. This imputation analysis examines whether or not access seekers will realise a positive margin on the costs they incur in supplying call services when facing LCS access prices determined on a retail minus basis with Telstra's current unbundled retail offerings used as starting prices. Telstra's prices used for comparison are the weighted average of its retail prices covered by its main residential and business line rental and call bundles such as HomeLine Complete, BusinessLine Plus etc,¹¹⁹ and the aggregate of its non-standard business offerings.

In performing this analysis it is assumed that access seekers:

- have the same traffic profile as Telstra;
- obtain access prices determined by the Commission for declared services along with Telstra's network costs (as applicable) where such pricing does not apply; and
- incur Telstra's average retail costs as estimated by the Commission.

¹¹⁸ It is to be noted that the Commission also expressed the view in its April 2002 pricing principles that it would expect the LCS price to change as Telstra made any changes to its unbundled offerings. The increase in the unbundled local call price (with the abolition of the Neighbourhood call rate) would therefore result in the specification of a higher LCS price.

¹¹⁹ Telstra's HomeLine Part and Business Line Part bundles are not included in determining Telstra's weighted average retail service quantities or prices. This serves to bias the tests slightly against Telstra (i.e. makes it harder for Telstra to pass the tests). Other minor bundles excluded mainly due to data constraints were HomeLine Budget, HomeLine Net and Business Line Fax.

The Commission compiled the information necessary for the analysis from a variety of sources. Telstra's national long distance, international and fixed to mobile average retail price and traffic quantity data for its different bundles is based almost entirely on a run of Telstra's bills issued on 17 December 2002. It includes only those bills for which the customer belonged to a particular bundle for the full duration of the billing period. The sample numbers for each bundle range from around 2,000 bills to many times this figure. Line rental, local and neighbourhood call price information was obtained from bundle details published on Telstra's website. Average retail price and traffic quantity data for Telstra's non-standard business offerings is based on aggregate revenue and traffic data for the six months to December 2002. Percentages of Telstra's lines covered by the various bundles were derived from information on the aggregate lines covered by each bundle.

Network access costs were based on the Commission's previously determined pricing estimates for applicable declared services. Where these prices were not available Telstra or Commission estimates of costs were used. Telstra's average retail costs added to these costs were Commission estimates. Access prices for the LCS were determined according to the April 2002 pricing principles.

Imputation tests were performed on a service by service, local call service only and full service (i.e. with all services bundled together) basis. Services included in the analysis are line rental, local calls, neighbourhood calls, national long-distance calls, international calls and fixed to mobile calls. Separate tests were performed for all bundles, residential bundles and business bundles.

In formal terms, for Telstra to pass the imputation test it is required that for all applicable services covered by the test n , that:

$$\sum_{i=1}^n r_i \geq \sum_{i=1}^n a_i q_i + \sum_{i=1}^n c_i q_i \quad (1)$$

where

r_i = Telstra's weighted average revenue for service i , determined as:

$$\sum_{j=1}^m x_j p_j q_j \quad (2)$$

where

x_j = Customers on bundle j as percentage of customers across all applicable bundles m ;

p_j = Average price of service i sold in bundle j ;

q_j = Average quantity of service i sold in bundle j .

a_i = Average access and associated costs for service i .

q_i = Telstra's weighted average quantity of service i sold, determined as:

$$\sum_{j=1}^m x_j q_j \quad (3)$$

with x_j and q_j defined as above.

c_i = Telstra's average retail costs for service i .

The results of the various imputation tests performed are summarised in Table 12.2 below.

Table 12.2: Results of imputation tests

	Residential bundles	Business bundles	All bundles
Line rental	PASS	PASS	PASS
Local calls	FAIL	FAIL	FAIL
N'hood calls	FAIL	FAIL	FAIL
National LD calls	PASS	PASS	PASS
International calls	PASS	PASS	PASS
Fixed-to-mobile calls	PASS	PASS	PASS
Local call services*	FAIL	FAIL	FAIL
All services	PASS	PASS	PASS

* Includes line rental, local and neighbourhood calls.

The imputation analysis indicates that Telstra fails the imputation test for local call services alone. Nonetheless, it only just fails and slightly different assumptions about costs could mean it passes. Importantly, however, Telstra passes the imputation test for all services taken together, and by a fairly substantial degree. This indicates the negative margins on local call services are more than offset by the positive margins on other call services.

Optus, Macquarie and ATUG have argued in their submissions that the Commission should adopt an average of Telstra's retail local call offerings as the retail starting price for determining the LCS price. The Commission considers that if it were to adopt this approach, access seekers would also need to incur an average charge for line rental given that the lowest local call prices offered by Telstra are within bundles that have the highest line rental. This charge would be higher than Telstra's current unbundled line rentals based on Telstra's current retail offerings.

Also relevant to the consideration of the retail starting price is the nature of the cross-subsidisation of local call services by other call services. The Commission's

imputation analysis indicates there is cross-subsidisation of Telstra's local call services from its long-distance services, but the existence of positive margins on the latter services that more than offset the negative margins on local calls services means that Telstra's retail local call prices are not considered to be predatory because access seekers should be able to emulate this cross-subsidisation.

From a competition perspective if the relevant market was seen strictly in terms of a local call market, this may indicate a concern, however, service providers do not compete in the local call market alone, ie. only for local call services, and would aim to supply long-distance and fixed to mobile services to customers as well, consistent with current preselection arrangements. The Commission is not aware of information to suggest that this assumption is unreasonable. This means that while the issue of the appropriate market definition would figure in any competition analysis, the market definition used would also need to have regard to the market characteristics and regulatory factors discussed above.

In view of the above analysis, the Commission considers that there is no need for it to change the basis on which the retail stating price is determined in relation to the LCS pricing approach. It will continue to monitor the market, using its new monitoring powers under the augmented accounting separation provisions, to ensure that Telstra continues to pass the imputation test for all services as constructed above and that the margins between bundled and unbundled approaches are not unduly eroded. Were Telstra to fail the broader imputation test at any time the Commission would be prepared to review its approach. Failure by Telstra of such a test would also need to be assessed in terms of any breaches to the competition rule under Part XIB of the TPA.

12.1.3 Calculation of retail costs

To apply the retail minus methodology for determining the LCS price, estimates of Telstra's average avoidable retail costs for local calls and line rental need to be made. The Commission last published such estimates in its April 2002 pricing principles. These estimates were derived using retail and wholesale cost information contained in Telstra's 1999-00 Regulatory Accounting Framework (RAF) accounts and were determined by the economic consultants NERA.

The estimates involved a number of re-allocations and other adjustments to the RAF accounts in order to provide a more accurate representation of the average retail costs that would be avoided by a 'wholesale only' firm.

Key adjustments included:

- Removal from retail costs of 'unambiguous' wholesale costs – these included network costs, installation costs, interconnection costs, international settlements and other product expenses;
- 'Scaling-up' of retail allocations for organisational and product and customer costs for basic access and local calls relative to the wholesale allocations

where the former were more than 30 per cent lower than the average allocation to retail for all other RAF product categories;¹²⁰

- Treating avoidable IT retail costs as 19 per cent of total IT costs in accordance with a Telstra internal cost study;
- Treating all marketing costs (retail and wholesale) as avoidable;
- Addition of a number of capital financing costs that would become avoidable as a result of a change from retail to wholesale billing;
- Adding a reduction in Telstra’s USO contribution as a result of it becoming a wholesale only firm to avoidable retail costs.

The resulting estimates of Telstra’s average retail costs for line rental and local calls are shown in Table 12.3.

Table 12.3: Commission’s previously accepted estimates of Telstra’s average retail costs 1999-2000*

Local calls	2.74 (cents/call)
Line rental	57.71 (\$/SIO p.a.)
Total	7.69 (cents/call)

* These figures were derived using NERA estimates of costs, SIOs and number of calls.

In accordance with the April 2002 pricing principles, access seekers would be required to absorb the GST on the retail proportion of the call where Telstra’s retail price for local calls was 20 cents (Telstra having been required to reduce the price from 22 cents to accommodate the GST). In such cases the retail cost for local calls was adjusted to 2.49 cents.¹²¹

Revised estimates of retail costs

To arrive at new draft estimates of retail costs for local calls and line rental the Commission considers it appropriate to largely replicate NERA’s methodology for adjusting Telstra’s cost allocations for the latest full year RAF accounts (2001-02). The Commission remains prepared to be persuaded on particular merits and deficiencies of this approach for adjusting the RAF cost allocations. One concern of the Commission is the somewhat arbitrary nature of the scaling up of retail and product and customer costs to be closer to the average of other RAF retail product categories. On this basis it has determined a range for retail costs. The higher estimate includes an

¹²⁰ This involved adjusting the share of these costs allocated to retail (out of retail and wholesale allocations) to a level of 30 per cent below the average for all other RAF products where they were lower than this threshold. The cost categories adjusted were operator services, general administration, other non-communications assets and other organisational costs.

¹²¹ This is determined as $2.74 - 2.74/22 \times 2$ or $2.74/1.1$.

amount in avoidable retail costs to account for the full impact of the scaling up effect and the lower estimate includes only 50 per cent of this amount.

The Commission does have some other concerns with the underlying RAF retail allocations for basic access and local calls which may need to be examined further for the purposes of determining its final estimates. These are discussed further in section 12.2 below.

To determine its estimates of retail costs, the adjustments made by the Commission to the 2001-02 RAF retail cost categories for local calls and basic access are shown in Table 12.4.

Table 12.4: Incremental adjustments to Telstra's RAF retail costs 2001-02 (\$ m)

<i>Adjustments</i>	<i>Basic access</i>	<i>Local calls</i>
Re-allocation to wholesale costs of unambiguous wholesale related costs	[c-i-c]	[c-i-c]
Scaling-up of retail share of organisational and product and customer costs to closer to average of all other RAF products	+53.2 to +106.4	+31.7 to +63.3
Removal of wholesale marketing costs	[c-i-c]	[c-i-c]
IT costs adjustment	-14.0	+3.5
Avoidable capital financing costs*	+39.9	+30.4
USO liability savings	+5.7	+2.5

* Due to difficulty in replicating NERA's calculations these figures are derived by taking the estimate of avoidable capital financing cost determined by NERA as a percentage of Telstra's retail cost of capital for basic access and local calls in 1999-00 and applying these to Telstra's retail cost of capital for basic access and local calls for 2001-02. These adjustments constitute capital financing savings that result from moving from retail to wholesale billing and some other minor adjustments (to form the total of avoidable capital financing costs). Residual capital financing costs are implicitly allocated to wholesale (i.e. as non-avoidable capital financing costs). For the avoidance of any doubt, these are the only cost of capital allocations included in the Commission's estimate of avoidable retail costs for the two services.

The resulting estimates of total retail costs are unitised to obtain per line and per call estimates of retail costs. In accordance with previous NERA practice, mid-point estimates of Telstra's retail and total (retail and wholesale only) line and local call services supplied are used. This was employed by NERA as compromise between using either retail only or total services, in acceptance of the proposition that Telstra has been unable to avoid some fixed costs of retailing as it has lost retail market share to competitors.

On the other hand however, Telstra has supplied the LCS to access seekers for several years, and Telstra's reported retail costs are now more likely to reflect the retail costs that Telstra incurs in supplying local call services to its own retail customer base. The Commission is therefore prepared to consider the use of Telstra's retail only line and local calls for unitisation in determining its final estimates.

The above processes of adjustment produce the estimates of retail costs for 2001-02 shown in Table 12.5:

Table 12.5: Commission's draft estimates of Telstra's average retail costs 2001-2002

	<i>Lower bound</i>	<i>Upper bound</i>
Local calls	1.99 cents	2.30 cents
Line rental	\$50.77 per line p.a. (or 4.72 cents per call)	\$56.49 per line p.a. (or 5.25 cents per call)

The Commission notes that Telstra undertook a process of adjustment of its own that results in estimates of avoidable retail costs for line rental and local calls of approximately half the value of the above estimates calculated by the Commission.

12.1.4 Projecting retail costs forward

As indicated in the Commission's discussion paper on the model price terms and conditions and a previous discussion paper on future access pricing approaches, the Commission considers it appropriate to project retail costs forward using an adjustment factor composed of the change in the Consumer Price Index (CPI) and Total Factor Productivity (TFP). Therefore retail costs for a given time period t , can be estimated as:

$$\text{Retail costs}_t = \text{RC}_{t-1} (1 + \text{CPI}_{t-1} - \text{TFP}_{t-1}) \quad (4)$$

where

RC_{t-1} is the retail costs calculation for the previous period.

In order to estimate retail costs for the current year 2002-03, the Commission has used its estimates of retail costs for 2001-02 in Table 12.5 above, the CPI increase for 2001-02 of 2.9 per cent and its estimate of the change in TFP for Telstra's PSTN of 5 per cent. This produces the retail cost estimates reported in Table 12.6.

Table 12.6: Commission's draft estimates of Telstra's average retail costs 2002-2003

	<i>Lower bound</i>	<i>Upper bound</i>
Local calls	1.95 cents	2.26 cents
Line rental	\$49.70 per line p.a. (or 4.62 cents per call)	\$55.31 per line p.a. (or 5.14 cents per call)

The Commission considers that such an approach is appropriate for the purposes of projecting LCS prices forward, with the delayed availability of RAF data, and possibly to project the LCS price forward for a number of years if that is required.

It does, however, raise the issue of whether Telstra's overall TFP factor is suitable to apply for retail costs, particularly given that regular updates of retail costs are available. This tends to suggest that a new estimate of retail costs should be determined whenever possible, relying on projections for one or at the most two years in the light of lags in the availability of annual RAF data. However, were the Commission to adopt a TSLRIC approach to pricing the LCS, it could be in a position to model prices for several years in advance consistent with the method for the other core services.

12.2 Further LCS issues

12.2.1 Changes to retail costs reported in the RAF

The Commission has made a number of observations as a result of reviewing the changes in basic access and local call retail and wholesale costs reported by Telstra in its RAF accounts between 1999-00 and 2001-02. Specific matters the Commission consider require further explanation are:

- a drop of \$[c-i-c] in reported retail costs for local calls and \$[c-i-c] for basic access;
- that of these changes in retail costs, around half in both cases was accounted for by a fall in organisational costs;
- an increase in wholesale costs for local calls of \$[c-i-c];
- the fact that the retail costs allocated to local calls has experienced the greatest percentage reduction compared to other common call services (and is also significantly below the proportions of retail costs for these services).

These are matters the Commission would like to explore further prior to publishing final model prices. It therefore seeks comment from Telstra and other industry participants in relation to them.

12.2.2 LCS-specific wholesale costs

Telstra claims that it incurs LCS specific wholesaling costs that should be added to any LCS price. These are the costs which are identified in Telstra's RAF accounts as LCS

‘external wholesale’ costs. The Commission is reluctant to accept these costs on the basis that the adjustments made to the retail costs in the RAF accounts that serve to increase the allocation of some costs from retail to wholesale, are designed to capture costs that a wholesale only firm would incur in the supply of services to a retail only provider. Consequently it has not subtracted any LCS specific external wholesale costs from its estimate of avoidable retail costs.

12.2.3 Role of the LCS as an access service

When the LCS service was declared by the Commission in August 1999, it was conceived of as a transitional service that would be used by access seekers to gain a foothold into the local call services market prior to developing more of their own infrastructure and/ or using other declared access services. Consistent with this, in July 2002 the Commission granted an exemption to Telstra for the supply of the LCS in the CBDs of major capital cities with effect from 17 July 2003. This was on the basis there were considered to be sufficient alternative infrastructure in place and as well as other declared services available to ensure ongoing participation by Telstra’s competitors in the local call services market in these areas.

Relevantly however, the Government recently designated the LCS as a core access service for the purposes of requiring the Commission to publish price and non-price terms and conditions for the service.

As mentioned above, the potential redundancy of the retail minus retail costs methodology and the adoption of TSLRIC as an alternative, particularly if preceded by the significant reduction of the ADC or the relaxation of the retail price cap on local calls does raise the issue of whether the Commission’s existing approach to regulation of the LCS should continue and the current declaration be subject to review.¹²² This would be on the basis that the LCS price would be almost identical to that for PSTN originating and terminating (O/T) access. The Commission is aware that access seekers are already using these services to supply shorter-held local calls, thereby taking advantage of differences in relation to the pricing of the LCS and these services.

It can be expected that increased use of PSTN O/T services to supply local calls will mean that the average duration of LCS calls will rise over time. This in turn will tend to increase the TSLRIC++ of local calls and perpetuate the retail minus (per call) approach to calculating the LCS price at least while the price cap on local calls remains. Working in the other direction is the expected fall in TSLRIC++ per minute due to cost efficiencies and the reduction of the access deficit. One possible means of addressing the ‘by-pass’ issue would be the adoption of a TSLRIC++ LCS price that is based on actual duration of calls rather than Telstra’s average local call duration. The Commission is interested to receive comments on these issues.

The Commission has determined draft prices for the LCS for 2002-03 (carried over to 2003-04) only at this stage. This is on the basis of a number of unresolved issues

¹²² The Commission is required to review LCS declaration prior to its expiry date of July 2006.

surrounding the determination of suitable prices in subsequent years. These issues, that have been detailed above include:

- whether and when the prices should be based on TSLRIC++;
- determination of a suitable adjustment factor for projecting retail prices forward, if TSLRIC++ is not used;
- the sensitivity of the LCS price to Telstra's retail local call prices using a retail minus pricing approach;
- concerns about some of Telstra's reported retail costs and the adjustments made;
- call over-ride opportunities that serve to increase the average call length of local calls;
- the need for the LCS declaration to continue if TSLRIC++ is adopted.

Given these issues, the Commission is willing to consider, as a possible compromise solution, specifying the final LCS prices determined for 2002-03 and 2003-04 as applicable for a number of years in advance, say three years. Although potentially sacrificing a degree of accuracy, this would have the advantage of producing greater certainty for industry while further consideration is given to a TSLRIC pricing approach and the future regulation of this service. Comment is sought on the possible adoption of such an approach for the final determination. At the very least however, the Commission believes that given that its LCS prices for 2002-03 have been determined very late in the financial year, these should carry over unchanged for 2003-04.

PART III – Draft determinations

13 Model access prices for PSTN O/T services

The last indicative PSTN O/T access price published by the Commission was 1.3 cent per minute for 2001-02.¹²³ This price was calculated as an adjustment to the price determined by the n/e/r/a model in 2000-01, and includes both the conveyance costs and an ADC. The Commission is also aware that current commercial arrangements contain a PSTN price above the Commission's 2001-02 indicative price.

It has been noted above that the Commission believes it is imperative to move to a pure TSLRIC-based PSTN cost (i.e. no ADC) by the beginning of 2006-07. Therefore, the Commission is of the view that the four years beginning 2003-04 represent a transition period over which the AD (and the ADC) should be progressively eliminated until 2006-07 when the PSTN charge will reflect only the call conveyance cost.

Based on the current PIE II modelling (including the inputs discussed above), the call conveyance cost over the period of indicative prices is in the vicinity of 0.7 cents per minute. However, the Commission understands that in future years there may be significant traffic migration away from the PSTN resulting in an increase in the per-minute call conveyance cost. Nonetheless, based on its preliminary sensitivity analysis, the Commission expects the call conveyance cost to remain well short of 1 cent per minute for the foreseeable future.

For the reasons outlined above in chapters 8 and 9, the Commission believes that a smooth reduction in the ADC is appropriate for the purpose of setting indicative prices. The Commission considers the following ranges of indicative prices suit the transition from current pricing with an ADC to pricing based only on conveyance costs:

Table 12.1: Model access prices for PSTN O/T services (cpm)

Year	Model access price*
2003-04	1.2 – 1.25
2004-05	1.1 – 1.15
2005-06	0.9 – 1.0
2006-07	conveyance charges (no ADC)

* These are headline rates that will need to be disaggregated as between flagfall/call and geographic areas

¹²³ ACCC, *ACCC Issues its Views on Access Pricing to Encourage Negotiated Settlements Over Access to Telstra's Fixed Network in 2001-2002*, Media Release, 18 May 2001

14 Model access prices for ULLS

The following are the indicative prices for the ULLS in bands 1 and 2:

Table 13.1: Model ULLS access prices (\$ per SIO)

	Monthly network cost	Monthly ULLS-specific cost	Monthly total
Band 1	3	8-11	11-14
Band 2	12	8-11	20-23
Band 3	26	8-11	35-40
Band 4	150	8-11	80-100

The Commission notes that it is in bands 1 and 2 only that the current demand for ULLS exists. Band 3 and 4 are less suited to the use of the ULLS to provide broadband services, although some limited areas may be suitable in the future. The indicative rates for bands 3 and 4 however, are only loosely based on underlying costs and it would be expected that should Telstra offer services in these areas, more specific pricing proposals would need to be submitted in undertakings or in bilateral agreements. That said, little if any use of DSL for broadband provision is expected in band 3 and 4, given the higher network costs evident in such areas. In this regard, other (wireless) technologies may be more suited to the provision of broadband services.

Model access prices for LCS

The model price terms for the LCS are those shown in Table 15.1. These are based on Telstra's current unbundled retail prices for local calls and line rental¹²⁴ and the Commission's retail costs estimates for 2002-03 (based on the 2001-02 cost estimates adjusted for inflation and productivity growth). It is to be noted that given that the local call prices in Telstra's unbundled offerings are at the maximum of 20 cents, the local call retail cost subtracted is adjusted to reflect a proportionate share of the assumed absorption of GST on these calls. The retail cost subtracted for calls is therefore 1.77 cents (lower bound retail costs) to 2.05 cents (upper bound retail costs). As indicated in chapter 12, given the LCS prices have been determined late in the 2002-03 financial year, it is considered that these should carry over for 2003-04 without adjustment.

Table 15.1: Model LCS call prices and annual line rentals 2002-03 and 2003-04*

	<i>Lower bound</i>		<i>Upper bound</i>	
	<i>Residential</i>	<i>Business</i>	<i>Residential</i>	<i>Business</i>
Prices with retail discount on line rental	17.95 cents \$201.05	17.95 cents \$325.96	18.23 cents \$206.66	18.23 cents \$331.57
Prices without retail discount on line rental	12.81 cents \$256.36	12.81 cents \$381.27	13.61 cents \$256.36	13.61 cents \$381.27

* All prices exclude GST.

To some extent the Commission has taken a cautious approach to determining its draft 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 and the ULLS and facilities based competition. As a consequence it does not wish to promote undue regulatory dependence by access seekers on this service. The Commission also notes that the prices are very sensitive to underlying assumptions about Telstra's retail costs, so that some subsequent variation above or below these prices could be expected.

¹²⁴ These reflect Telstra's retail price changes that came into effect on 7 May 2003.