AUSTRALIAN COMPETITION TRIBUNAL

Telstra Corporation Ltd (No 3) [2007] ACompT 3

SUMMARY

FILE No 8 of 2006

RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED AUGUST 2006 IN RESPECT OF ORDINARY ACCESS UNDERTAKINGS SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE UNCONDITIONED LOCAL LOOP SERVICE

TELSTRA CORPORATION LTD (ACN 051 775 556)

Applicant

JUSTICE GOLDBERG (President), MR R DAVEY and PROFESSOR D ROUND

17 MAY 2007

MELBOURNE

SUMMARY

1. In accordance with the practice of the Australian Competition Tribunal ("the Tribunal") for matters of significant public interest, the following summary has been prepared to accompany the Decision today and the Reasons for Decision which will be published on Monday 21 May 2007 after any outstanding issues of confidentiality have been resolved. The summary is intended to assist in understanding the outcome of this proceeding and is necessarily not a complete statement of the reasoning, nor of the conclusions, of the Tribunal. The only authoritative statement of the Tribunal's reasons is that contained in the published Reasons for Decision which will be published on 21 May 2007 and will be available on the internet at www.competitiontribunal.gov.au, together with this summary.

2. The matter before the Tribunal constituted by Goldberg J (President), Mr Robin Davey and Professor David Round was an application by Telstra Corporation Limited ("Telstra") for review of the decision of the Australian Competition and Consumer Commission ("the Commission") to reject two ordinary access undertakings given by Telstra to the Commission pursuant to s 152BU(2) of the *Trade Practices Act* 1974 (Cth) ("the Act").

3. Telstra's undertakings set out certain terms and conditions upon which Telstra was prepared to provide access to its Unconditioned Local Loop Service ("ULLS") to access seekers from 1 January 2006 until 30 June 2008. The ULLS is a service for access to unconditioned cable, usually a copper wire pair, between an end-user and a telephone exchange. The ULLS essentially gives an access seeker the use of the copper pair without any dial tone or carriage service. This allows the access seeker to use its own equipment in an exchange to provide a range of services, including traditional voice services and high speed internet access, to the end-user.

4. The Commission rejected the undertakings in its final decision published on 25 August 2006 on the basis that it was not satisfied that the charge for access to the ULLS of $30 per month and certain non-price terms and conditions specified in the

undertakings were reasonable having regard to the matters set out in s 152AH and the objectives in s 152AB of the Act.

5. Particular terms and conditions of access to its ULLS proposed by Telstra related to:

- a monthly charge for access to the ULLS of $30 per service;
- Network Modernisation Provisions whereby Telstra set out the terms on which it would carry out network upgrades which included the possibility that the ULLS would no longer be able to be supplied.

6. These terms and conditions gave rise to issues whether it was reasonable, having regard to the matters specified in s 152AH and the objectives in s 152AB, for Telstra:

- to arrive at its $30 charge by averaging its costs of supplying the ULLS across four geographic areas throughout Australia, namely central business districts, metropolitan areas, provincial areas and rural areas;
- to rely on its PSTN Ingress and Egress II Model ("PIE II model") to estimate the network costs sought to be recovered by the $30 charge;
- to include the Network Modernisation Provisions; and
- to use two distinct values for its Weighted Average Cost of Capital ("WACC") in determining its costs of supplying the ULLS and, regardless of whether one or two WACC values were accepted, whether it was reasonable for Telstra to adjust the WACC by the addition of an amount equal to one standard deviation to allow for an alleged asymmetry in the social consequences of errors made in estimating the WACC.

These were only some of the issues addressed by the Tribunal.

7. By virtue of s 152BV(2)(d) of the Act, the Tribunal cannot accept Telstra's undertakings unless it is satisfied that the terms and conditions specified in the undertakings are reasonable having regard to the matters set out in s 152AH and the objectives in s 152AB. The matters to which the Tribunal must have regard in

determining whether particular terms and conditions of an access undertaking are reasonable include:

- whether the terms and conditions promote the long-term interests of end-users of carriage services which, in turn, requires the Tribunal to have regard to the extent to which the terms and conditions are likely to result in the achievement of the objective of promoting competition in markets for carriage services and encouraging the economically efficient use of, and the economically efficient investment in, infrastructure generally;
- the legitimate business interests of Telstra;
- the interests of access seekers, such as Optus Networks Pty Limited and the other access seekers who participated in the proceeding; and
- the economically efficient operation of a carriage service.

8. The Tribunal has reached the conclusion that it is not satisfied having regard to the matters set out in s 152AH and the objectives in s 152AB that:

- the charge for access to the ULLS of $30 per service per month in the undertakings, based on the averaging of its costs of supplying the ULLS across the four geographic areas, is reasonable;
- the Network Modernisation Provisions in the undertakings are reasonable;
- the PIE II model can be relied upon to estimate accurately Telstra's costs of supplying the ULLS for the periods covered by the undertakings;
- Telstra's estimated network costs represent a reasonable estimate of its projected network costs for the periods covered by the undertakings;
- Telstra's allocation of its ULLS specific costs across ULLS lines only is reasonable with the consequence that the Tribunal is not satisfied that Telstra's estimates of its ULLS specific costs are reasonable;
- the use by Telstra of two values for the WACC in determining its cost of supplying the ULLS is reasonable;

- the calculation and estimate of the WACC by the addition of an amount equal to one standard deviation in order to allow for the alleged asymmetry and the social consequences of errors made in estimating the WACC, for the purpose of determining and estimating Telstra's specific ULLS costs, is reasonable.

9. It follows from these conclusions that the Tribunal is not satisfied, having regard to the matters set out in s 152AH and the objectives in s 152AB, that the terms and conditions specified in the undertakings, in the respects referred to in the Reasons, are reasonable and that the Commission's decision on 25 August 2006 rejecting the undertakings should be affirmed.

10. The decision of the Tribunal is that the decision of the Commission on 25 August 2006 rejecting the two ordinary access undertakings given to it by Telstra Corporation Limited on 23 December 2005 is affirmed.

AUSTRALIAN COMPETITION TRIBUNAL

Telstra Corporation Ltd (No 3) [2007] ACompT 3

TRADE PRACTICES – application pursuant to s 152CE(1) of the *Trade Practices Act* 1974 (Cth) – application for review of decision of Australian Competition and Consumer Commission to reject access undertakings – unconditioned local loop service ("ULLS") – whether monthly charge is reasonable – consistency with standard access obligations – averaging of network costs – retail price parity obligation – universal service obligation – universal service fund – whether averaging promotes the long-term interests of end-users – whether averaging is in the legitimate business interests of access provider – whether averaging is in the interests of persons who have rights to use the ULLS – direct costs of providing access to the ULLS – reasonableness of network modernisation provisions – efficient costs – reasonableness of PIE II model – international benchmarking – allocation of costs – weighted average cost of capital ("WACC")

Trade Practices Act 1974 (Cth): ss 152AB, 152AH, 152AL, 152AR, 152AY, 152BS 152BU(2), 152BV(2), 152CE(1), 152CF(3)
Pts IV, V, XIB, XIC
Telecommunications Act 1997 (Cth)
Telecommunications Competition Bill 2002
Legislative Instruments Act 2003 (Cth): ss 55(2), 55(3)
Telecommunications (Consumer Protection and Service Standards) Act 1999 (Cth): ss 11, 11A, 12D, 154, 155, 157
Telecommunications (Universal Service Levy) Act 1997 (Cth)

Telstra Corporation Limited [2006] ACompT 4, applied
Application by Optus Mobile Pty Limited & Optus Networks Pty Limited [2006] ACompT 8, applied
Application by Vodafone Network Pty Limited & Vodafone Australia Limited [2007] ACompT 1, applied
Sydney International Airport (2000) ATPR 41-754, distinguished
Seven Network Limited (No 4) [2004] ACompT 11, distinguished
Re Queensland Co-Operative Milling Association and Defiance Holdings (1976) 8 ALR 481, applied
Sydney Services Pty Limited [2005] ACompT 7, cited
R v Hunt Ex parte Sean Investments Pty Ltd (1979) 180 CLR 322, applied

FILE No 8 of 2006

RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED AUGUST 2006 IN RESPECT OF ORDINARY ACCESS UNDERTAKINGS SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE UNCONDITIONED LOCAL LOOP SERVICE

TELSTRA CORPORATION LTD (ACN 051 775 556)

Applicant

JUSTICE GOLDBERG (PRESIDENT), MR R DAVEY & PROFESSOR D ROUND
17 MAY 2007
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GENERAL DISTRIBUTION

IN THE AUSTRALIAN COMPETITION TRIBUNAL

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RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED AUGUST 2006 IN RESPECT OF ORDINARY ACCESS UNDERTAKINGS SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE UNCONDITIONED LOCAL LOOP SERVICE

TELSTRA CORPORATION LTD (ACN 051 775 556)

APPLICANT

JUDGE: **JUSTICE GOLDBERG (PRESIDENT), MR R DAVEY & PROFESSOR D ROUND**

DATE OF ORDER: **17 MAY 2007**

WHERE MADE: **MELBOURNE**

THE TRIBUNAL DECIDES THAT:

1. The decision of the Australian Competition and Consumer Commission on 25 August 2006 rejecting the two ordinary access undertakings given to it by Telstra Corporation Limited on 23 December 2005 is affirmed.

GENERAL DISTRIBUTION

IN THE AUSTRALIAN COMPETITION TRIBUNAL

FILE No 8 of 2006

RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED AUGUST 2006 IN RESPECT OF ORDINARY ACCESS UNDERTAKINGS SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE UNCONDITIONED LOCAL LOOP SERVICE

TELSTRA CORPORATION LTD (ACN 051 775 556)

APPLICANT

JUDGE: **JUSTICE GOLDBERG (PRESIDENT), MR R DAVEY & PROFESSOR D ROUND**

DATE: **17 MAY 2007**

PLACE: **MELBOURNE**

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REASONS FOR DECISION

THE TRIBUNAL: JUSTICE GOLDBERG (PRESIDENT), MR R DAVEY and PROFESSOR D ROUND

1. INTRODUCTION

1 Telstra Corporation Limited ("Telstra") has applied to the Tribunal pursuant to s 152CE(1) of the *Trade Practices Act* 1974 (Cth) ("the Act") for a review of a decision of the Australian Competition and Consumer Commission ("the Commission") to reject two ordinary access undertakings given by Telstra to the Commission under s 152BU(2) of the Act.

2 The access undertakings set out the price and certain non-price terms and conditions upon which Telstra undertakes to provide its Unconditioned Local Loop Service. Telstra's Unconditioned Local Loop Service was described in the undertakings as:

> *"…a service for the use of a continuous metallic twisted pair between the Network Boundary at the ULL End Customer Premises and a ULL POI associated with the TCAM serving that ULL End Customer."*

3 The Unconditioned Local Loop Service was declared by the Commission under s 152AL(3) of the Act. Two undertakings were given by Telstra to the Commission on 23 December 2005. They contained substantially the same terms and conditions. The first undertaking was in respect of the period from 1 January 2006 to 30 June 2007. The second was in respect of the period from 1 July 2007 to 30 June 2008. Each of the undertakings provided for a monthly charge of $30 per service. The Commission rejected the two undertakings in its Final Decision published on 25 August 2006 on the basis that it was not satisfied that the price and certain non-price terms and conditions specified in the undertakings were reasonable.

4 The application for review was filed by Telstra on 14 September 2006. The issues before the Tribunal are whether the price and certain non-price terms and conditions of the undertakings are reasonable having regard to certain statutory matters to which we shall refer. Annexure A contains a glossary of terms used in these reasons.

2. PARTIES TO THE APPLICATION

5 The Commission appeared to assist the Tribunal pursuant to s 152CF(3) of the Act, and the following parties were granted leave to intervene in the proceeding:

- Optus Networks Pty Limited ("Optus");
- AAPT Limited ("AAPT");
- Agile Pty Limited ("Agile");
- Chime Communications Pty Limited ("Chime");
- Macquarie Telecom Pty Limited ("Macquarie");
- Primus Telecommunications Pty Ltd ("Primus");
- PowerTel Limited ("PowerTel").

Agile, Chime, Macquarie, Primus and PowerTel ("the other intervenors") were jointly represented. All intervenors currently acquire the Unconditioned Local Loop Service from Telstra. AAPT filed a statement of facts, issues and contentions but took no further part in the proceeding.

3. THE LEGISLATIVE REGIME

6 The telecommunications access regime under Pt XIC of the Act was considered and explained recently by the Tribunal in *Telstra Corporation Limited* [2006] ACompT 4, in *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited* [2006] ACompT 8 and in *Application by Vodafone Network Pty Limited & Vodafone Australia Limited* [2007] ACompT 1. We adopt those considerations and explanations in these reasons and provide the following summary of the provisions of Pt XIC that are relevant to our consideration in this proceeding.

7 Section 152AR of the Act sets out the standard access obligations ("the SAOs") with which an access provider that supplies a declared service must comply. The SAOs set out the manner in which an access provider, if so requested by a service provider, must provide an active declared service. These obligations require an access provider, such as Telstra, to:

- supply an active declared service, in this case the Unconditioned Local Loop Service, to the service provider so that the service provider can provide carriage services and/or content services: s 152AR(3)(a);

- take all reasonable steps to ensure that the technical and operational quality of the service supplied to the service provider (which includes ordering and provisioning) is equivalent to that which the access provider provides to itself: s 152AR(3)(b); and
- take all reasonable steps to ensure that the service provider receives, in relation to the service supplied to it, fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself: s 152AR(3)(c).

(We describe the second and third of these obligations later in these reasons as "the equivalency SAOs").

8 A carrier (or carriage service provider), such as Telstra, who is required to comply with the SAOs must comply with those obligations:

- on such terms and conditions as are agreed between it and an access seeker: s 152AY(2)(a);
- if the carrier (or carriage service provider) and the access seeker cannot reach agreement and the carrier (or carriage service provider) has had an access undertaking accepted by the Commission (or, on review, by the Tribunal), the terms and conditions with which the carrier (or carriage service provider) must comply are, to the extent that they are set out in the undertaking, as set out in the undertaking: s 152AY(2)(b)(i);
- if the carrier (or carriage service provider) and the access seeker cannot reach agreement and the carrier (or carriage service provider) has had an access undertaking accepted by the Commission (or, on review, by the Tribunal) but the undertaking does not specify terms and conditions about a particular matter, the terms and conditions with which the carrier (or carriage service provider) must comply are to be determined by the Commission acting as an arbitrator and its determination on the arbitration must be consistent with the SAOs and any operative undertaking: s 152AY(2)(b)(ii); and
- if there is no undertaking, on such terms as the Commission acting as an arbitrator may determine: s 152AY(2)(b)(iii).

9 A carrier (or carriage service provider) may submit an ordinary access undertaking to the Commission under which it undertakes to comply with the terms and conditions specified in the undertaking in relation to the applicable SAOs: s 152BS(1). The Commission must accept or reject the undertaking: s 152BU(2), but it must not accept an undertaking unless it is satisfied that:

- the undertaking is consistent with the SAOs applicable to the carrier or provider: s 152BV(2)(b); and
- the terms and conditions specified in the undertaking are reasonable: s 152BV(2)(d).

10 The sections of the Act critical to the Commission's decision to accept or reject an undertaking, and any review of the Commission's decision by the Tribunal, are ss 152AH and 152AB. Section 152AH(1) sets out matters to which regard must be had by the Commission (and by the Tribunal on review) in determining whether particular terms and conditions of an access undertaking are reasonable:

> *"(a) whether the terms and conditions promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services;*
>
> *(b) 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;*
>
> *(c) the interests of persons who have rights to use the declared service concerned;*
>
> *(d) the direct costs of providing access to the declared service concerned;*
>
> *(e) the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility;*
>
> *(f) the economically efficient operation of a carriage service, a telecommunications network or a facility."*

Section 152AH(2) provides that subsection (1) does not, by implication, limit the matters to which regard may be had in determining whether the terms and conditions specified in the undertaking are reasonable.

11 Section 152AB(2) provides, relevantly, that in determining whether the terms and conditions of an undertaking promote the long-term interests of end-users of carriage services or services supplied by means of carriage services ("listed services"), regard must be had by

the Commission (and by the Tribunal on review) to the extent to which the terms and conditions are likely to result in the achievement of the following objectives:

> *"(c) the objective of promoting competition in markets for listed services;*
>
> *(d) the objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end-users;*
>
> *(e) the objective of encouraging the economically efficient use of, and the economically efficient investment in:*
>
> *(i) the infrastructure by which listed services are supplied; and*
> *(ii) any other infrastructure by which listed services are, or are likely to become, capable of being supplied."*

Section 152AB(3) provides that subsection (2) is intended to limit the matters to which regard may be had. Subsequent subsections of s 152AB expand upon the manner in which the Commission (and the Tribunal on review) is to have regard to those objectives.

12 Where in these reasons we refer to the "reasonableness" of a term or condition, we use the expression as shorthand to describe and explain the task that is committed to us by ss 152AH and 152AB. Section 152AH(1) does not confine the notion of reasonableness articulated in s 152BV(2)(d) because of the provision in s 152AH(2) and it is not exhaustive of the matters to which regard may be had. Nevertheless, when considering whether a term or condition (or matters such as a method or means used to arrive at a particular term or condition) is reasonable, we pay particular regard to the matters specified in s 152AH(1) and the objectives set out in s 152AB. We are not considering the reasonableness of the term or condition (or the method or means used to arrive at the term or condition) in the abstract, unrelated to the matters specified in s 152AH(1) and the objectives set out in s 152AB: *Application by Vodafone Network Pty Limited & Vodafone Australia Limited* (supra) at par [12].

13 In determining whether the terms and conditions of an access undertaking are reasonable, there are no absolute answers, nor is there necessarily only one correct approach: *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited* (supra) at par [15]; *Telstra Corporation Limited* (supra) at pars [63] and [67].

4. THE UNCONDITIONED LOCAL LOOP SERVICE

14 The Commission's Final Decision provides the following succinct description (which we adopt) of the Unconditioned Local Loop Service:

> *"... a service for access to unconditioned cable, usually a copper wire pair, between an end user and a telephone exchange. The ULLS essentially gives an access seeker the use of the copper pair without any dial tone or carriage service. This allows the access seeker to use its own equipment in an exchange to provide a range of services, including traditional voice services and high speed internet access, to the end-user."*

15 The Commission's Final Decision also describes Telstra as the predominant supplier of the Unconditioned Local Loop Service and describes the declared service as being:

> *"... 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 potentially be used to provide voice services more efficiently using voice over IP and DSL technologies. Possible services include 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 traditional local, STD and IDD call services in competition with Telstra."*

The Unconditioned Local Loop Service is an input that access seekers can use to provide retail fixed line services in competition with Telstra in retail markets for telecommunications services.

16 There are differences between the Commission's description of the Unconditioned Local Loop Service which it has declared and Telstra's description of the Unconditioned Local Loop Service which it supplies. We consider these differences later in these reasons. For convenience we generally refer to both descriptions by the acronym "ULLS".

5. THE DECLARATION OF THE ULLS

17 Where an eligible service (that is, a listed carriage service within the meaning of the *Telecommunications Act* 1997 (Cth) or a service that facilitates the supply of such a service) is supplied by a carrier (or carriage service provider), such as Telstra, the Commission may declare the service if it is satisfied that the making of the declaration will promote the long-term interests of end-users of carriage services or of services provided by means of carriage services: s 152AL of the Act.

18 The Commission first declared the ULLS on 11 August 1999 varying that declaration on 18 May 2000. The Commission again declared the service on 28 July 2006 to take effect from the date of its gazettal pursuant to s 152AL(5) and to expire on 31 July 2009. That

declaration was published in Gazette No GN. 31 of 9 August 2006. The ULLS was described in the declaration in the following terms:

> *"The unconditioned local loop service is the use of unconditioned communications wire between the boundary of a telecommunications network at an end-user's premises and a point on a telecommunications network that is a potential point of interconnection located at or associated with a customer access module and located on the end-user side of the customer access module."*

The declaration included the following definitions:

> *"***boundary of a telecommunications network** *is the point ascertained in accordance with section 22 of the* Telecommunications Act 1997*;*
>
> **communications wire** *is a copper based wire forming part of a public switched telephone network;*
>
> **customer access module** *is a device that provides ring tone, ring current and battery feed to customers' equipment. Examples are Remote Subscriber Stages, Remote Subscriber Units, Integrated Remote Integrated Multiplexers, Non-integrated Remote Integrated Multiplexers and the customer line module of a Local Access Switch;*
> *…"*

6. TELSTRA'S UNDERTAKINGS

19 As noted in par [3] above, Telstra gave to the Commission two undertakings in relation to the ULLS. Telstra said it gave two undertakings:

> *"… to maximise the prospect of an undertaking being accepted. The Commission may have been or the Tribunal may now for example be satisfied that the terms and conditions of the Undertakings are reasonable in respect of 2006/07 but not in respect of 2007/08. In those circumstances, if one undertaking covered the entire period, it would likely be rejected. However, the existence of two Undertakings may lead to the acceptance* [of] *one of the Undertakings."*

20 The second undertaking was in substantially identical terms to the first undertaking save for its commencement and duration. It is to come into operation on 1 July 2007 and to continue, subject to certain provisions not relevant for present purposes, until 30 June 2008.

21 Each undertaking consisted of Recitals, Operative Provisions and three Attachments (A, B and C). The following paragraphs set out, or describe, the parts of the Recitals, Operative Provisions and Attachments that are relevant to our consideration of their terms and conditions.

22 Recital B to each undertaking stated that:

> *"Telstra gives this undertaking pursuant to Division 5 of Part XIC of the* Trade Practices Act *1974 (Cth) ("**TPA**") in relation to the Unconditioned Local Loop Service (the "**Declared Service**") which was declared by the ACCC under section 152AL(3) of the TPA".*

23 Recital C stated that the terms and conditions specified in the undertaking principally related to matters of pricing and did not cover other matters relating to the supply of the service upon which Telstra and an access seeker must reach agreement prior to the supply of the service.

24 Clause 2 of the first undertaking set out the period of the undertaking in the following terms:

> *"**2 Commencement and Duration***
>
> *2.1 This Undertaking comes into operation upon the later of:*
>
> *(a) acceptance of the Undertaking by the ACCC under Division 5 of Part XIC of the TPA; and*
>
> *(b) 1 January 2006,*
>
> *and continues, subject to paragraph 3.2(b), until the earlier to occur of:*
>
> *(c) 30 June 2007; or*
>
> *(d) termination or withdrawal in accordance with the TPA.*
>
> *2.2 For the avoidance of doubt, this Undertaking (including, without limitation, any prices in this Undertaking) has no effect in respect of any services that:*
>
> *(a) have been supplied by Telstra to an Access Seeker prior to the date on which the Undertaking is accepted by the ACCC under Division 5 of Part XIC of the TPA; or*
>
> *(b) are being supplied by Telstra to an Access Seeker under an existing agreement on the date on which the Undertaking is accepted for as long as that agreement remains on foot."*

Clause 2 of the second undertaking was in identical terms save that the commencement date in cl 2.1(b) was 1 July 2007 and the termination date in cl 2.1(c) was 30 June 2008.

25 Clause 3 of each undertaking was in the following terms:

> *"**3 Undertaking Terms and Conditions***
>
> *3.1 Telstra undertakes to the ACCC that during the period this Undertaking is in effect pursuant to clause 2.1 it will comply with the terms and conditions specified in Attachments A, B and C of this Undertaking in relation to the standard access obligations applicable to Telstra in respect of the Declared Service.*
>
> *3.2 For the avoidance of any doubt, this Undertaking:*
>
> *(a) does not specify all the terms and conditions on which Telstra will comply with the standard access obligations that are applicable to it in respect of the Declared Service referred to in clause 3.1, but only some of them, and therefore does not constitute an offer by Telstra to provide the Service to an Access Seeker; and*
>
> *(b) does not apply to the Declared Service to the extent that there are no standard access obligations applicable to Telstra in respect of the Declared Service for reasons including, without limitation, the granting of an exemption by the ACCC under section 152AT of the TPA in respect of the Declared Service, the variation or revocation of a declaration by the ACCC under section 152AO of the TPA in respect of the Declared Service or the expiry of a declaration in accordance with the TPA or a determination by the Regulator."*

26 Attachment A of the first undertaking contained a Service Schedule which provided, *inter alia*:

> *"**2 Service Description***
>
> ***Telstra Unconditioned Local Loop Service***
>
> *2.1 The following service description is provided for Telstra Unconditioned Local Loop Service and applies to the provision of the Telstra Unconditioned Local Loop Service by Telstra to the Access Seeker.*
>
> *2.2 Telstra Unconditioned Local Loop Service is a service for the use of a continuous metallic twisted pair between the Network Boundary at the ULL End Customer Premises and a ULL POI associated with the TCAM serving that ULL End Customer.*
>
> *2.3 Telstra Unconditioned Local Loop Service will support a connection with DC continuity."*

27 Clause 4 of Attachment A, which dealt with facilities access, noted, in accordance with Recital C, that facilities access was not a matter dealt with by the undertakings and that an access seeker would need to enter into such facilities access arrangements with Telstra as were necessary in order for it to connect its network to the ULLS at the ULLS point of interconnection ("POI").

28 Clause 6 related to Network Modernisation and provided:

> *"6.1 The Access Seeker agrees that:*
>
> *(a) Telstra has the right to maintain and upgrade its Network:*
>
> *(b) provision of the Telstra Unconditioned Local Loop Service does not prevent, limit or restrict Telstra from maintaining or upgrading its Network; and*
>
> *(c) the maintenance and upgrade of Telstra's Network includes remediation, reconfiguration, enablement, augmentation, maintenance and repair of the Network (including the removal, rearrangement, replacement or decommissioning (for example with fibre optic cable) of the continuous metallic pair used for the supply of the Telstra Unconditioned Local Loop Service to the Access Seeker) ("**Network Upgrades**").*
>
> *6.2 The Access Seeker acknowledges that:*
>
> *(a) any such Network Upgrade by Telstra may include the installation of TCAMs closer to ULL End Customers than a Telstra exchange building;*
>
> *(b) any such Network Upgrade may require:*
>
> *(i) the truncation of Telstra Unconditioned Local Loop Service provided from Telstra exchange buildings;*
>
> *(ii) the establishment by Access Seekers of a new ULL POI or the relocation by Access Seekers of ULL POIs from one point to another (such as from a Telstra exchange building to the vicinity of relevant TCAMs); and/or*
>
> *(iii) the alteration of deployment classes of Authorised Equipment used by Access Seekers on Telstra Unconditioned Local Loop Service; and*
>
> *(c) a Network Upgrade may result in the Telstra Unconditioned Local Loop Service no longer being able to be supplied or the quality of the Telstra Unconditioned Local Loop Service (or any services supplied by Access Seekers to their ULL End Customers using the Telstra Unconditioned Local Loop Service) being adversely affected; and*

(d) where a Network Upgrade does not result in the truncation of a Telstra Unconditioned Local Loop Service provided to the Access Seeker, but requires the alteration of the deployment class of Authorised Equipment used on the Telstra Unconditioned Local Loop Service, then subject to the required alteration being made to the deployment class, the Access Seeker may continue to access Telstra Unconditioned Local Loop Service.

6.3 Where a Telstra Unconditioned Local Loop Service has been activated or Telstra has received a ULLS Request (as that term is defined in the ULL Ordering and Provisioning Code) and:

(a) the Network Upgrade will require the Access Seeker to take particular action in order to continue to use the Telstra Unconditioned Local Loop Service (such as that described in clause 6.2(b)); or

(b) the Network Upgrade will result in the Telstra Unconditioned Local Loop Service no longer being able to be supplied,

Telstra will provide the Access Seeker with notice of the Network Upgrade. The type of notice given and the length of notice period given in the Network Upgrade notice will vary depending on the type of Network Upgrade, but in the case of Network Upgrades other than Emergency Network Upgrades, Telstra will provide the Access Seeker with not less than 15 weeks' prior notice of the Network Upgrade.

6.4 Where:

(a) a Network Upgrade notice requires the Access Seeker to take particular action (such as that described in clause 6.2(b)) in order to continue to use the Telstra Unconditioned Local Loop Service and the Access Seeker fails to do so within the time specified in the notice; or

(b) the Network Upgrade is one that will result in a Telstra Unconditioned Local Loop Service no longer being able to be supplied,

Telstra has the right to terminate that Telstra Unconditioned Local Loop Service and the Access Seeker must comply with any notice from Telstra for the Access Seeker to submit a Handback (as that term is defined in the ULL Ordering and Provisioning Code)."

29 Attachment B of the first undertaking contained charges for the provision of the Telstra ULLS and provided, *inter alia*:

*"**2 Charges for Telstra Unconditioned Local Loop Service***

2.1 The charges payable by the Access Seeker to Telstra for Telstra Unconditioned Local Loop comprise:

*(a) a once only charge payable at connection ("**connection charge**") (although this charge is not a matter dealt with by this Undertaking);*

(b) a monthly charge; and

(c) charges for operational aspects of the service such as service qualification inquiries and order withdrawals (although these charges are not a matter dealt with by this Undertaking).

2.2 The charges payable by the Access Seeker to Telstra for Telstra Unconditioned Local Loop Service are geographically averaged.

3 Monthly Charge

3.1 The monthly charge for each Telstra Unconditioned Local Loop Service is set out in Table x167.1. The monthly charge depends upon whether the Telstra Unconditioned Local Loop Service is connected at an IRIM/RIM/CMUX or an RSS/RSU."

Table x167.1 was in the following form:

Location of ULL POI	***Monthly Charge***
	1 January 2006 to 30 June 2007
RSS/RSU	*$30 per month*
IRIM/RIM/ CMUX	*Not dealt with by this Undertaking given the limited demand at this point*

30 The charges for the period of the second undertaking were in identical terms save that the words "given the limited demand at this point" did not appear in Table x167.1 of the second undertaking.

31 Attachment C to each undertaking was entitled "*Standard Access Obligations*". It provided that Telstra would comply with the SAOs in the following terms:

"1.1 Insofar as a Service, or part of a Service, is a Declared Service, then Telstra will, as required under Part XIC of the TPA, treat the Access Seeker on a non-discriminatory basis as required by the standard access obligations in relation to the supply of that Service or that part of the Service, including but not limited to, if requested by the Access Seeker:

(a) taking all reasonable steps to ensure that the technical and operational quality of that Service or part of the Service, is equivalent to that which Telstra provides to itself; and

> *(b) taking all reasonable steps to ensure that the Access Seeker receives, in relation to that Service or that part of the Service, fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which Telstra provides to itself."*

7. THE COMMISSION'S REASONS FOR REJECTING THE UNDERTAKINGS

32 Having assessed the key components of the undertakings against the matters set out in s 152AH(1), the Commission was not satisfied that the terms and conditions specified in the undertakings were reasonable.

33 More particularly, it was not satisfied that Telstra's estimates of its network costs based on its PSTN Ingress and Egress II Model ("the PIE II model") were reasonable because it had not discharged the onus on it to demonstrate the reasonableness of the model and its underlying assumptions. Thus, the Commission concluded that Telstra had failed to demonstrate that its costs were efficient.

34 Nor was the Commission satisfied that Telstra's proposed averaged ULLS charge would be reasonable because the averaged charge would not reflect the costs of the ULLS in different geographic areas. It was of the view that this would adversely affect competition in the markets for basic telecommunications and broadband services and would distort usage and investment decisions, resulting in the inefficient use of, and investment in, telecommunications infrastructure.

35 Focusing on what it considered to be the high weighted average cost of capital ("WACC") values used by Telstra to estimate its network costs, the Commission expressed concerns with Telstra's reliance on Professor Robert Bowman's methodology to arrive at those values.

36 In relation to the specific costs that Telstra claimed to incur in the supply of its ULLS, the Commission considered the most significant issue to be the appropriate cost recovery base. It concluded that:

> *"Even if the ACCC accepted Telstra's claims in relation to the appropriate cost pool, the recovery of specific costs over all CAN lines or all ADSL* [asymmetric digital subscriber line] *lines would result in a per service charge substantially below that proposed by Telstra."*

37 Emphasising that it considered that the undertakings only covered certain forms of the declared services, the Commission formed the view that the undertakings, insofar as they addressed relevant provisions, were consistent with Telstra's SAOs.

38 Commenting on the network modernisation provisions in the undertakings (par [28] above), the Commission noted that the issues surrounding network modernisation were inherently complex and considered that such clauses would:

> *"more usually be determined by bilateral commercial negotiation or by agreed operational procedures through self-regulatory mechanisms."*

39 The Commission concluded that the proposed price and non-price terms and conditions contained in the undertakings:

- were unlikely to promote the long-term interests of end-users as they would not promote competition and encourage the economically efficient use of, and investment in, infrastructure;
- resulted in Telstra recovering more than was necessary to promote its legitimate business interests;
- would harm the interests of access seekers and the persons who had rights to use the ULLS;
- exceeded the direct cost of providing access;
- did not have a material effect on the operational and technical requirements necessary for the safe and reliable operation of telecommunications services; and
- were not likely to facilitate the economically efficient operation of the ULLS.

Accordingly, the Commission was not satisfied that the terms and conditions specified in the undertakings were reasonable.

8. ISSUES

40 The principal issues for our consideration are:

- whether the undertakings are consistent with the SAOs applicable to Telstra: s 152BV(2)(b); and

- whether the terms and conditions specified in the undertakings are reasonable: s 152BV(2)(d).

41 Deciding whether the terms and conditions specified in the undertakings are reasonable includes a consideration of the following key issues:

- whether Telstra's proposed monthly $30 per service charge for the ULLS is reasonable; and
- whether the network modernisation provisions are reasonable.

42 A consideration of the reasonableness of the monthly $30 per service charge raises for consideration the following significant issues:

- whether it is reasonable for Telstra to rely on the PIE II model to estimate the network costs that provide the basis for the $30 charge;
- whether the assumptions made, and the method used, by Telstra in arriving at its WACC are reasonable and, in particular, whether its:
    - use of two WACCs, one to determine the ULLS network costs and another to determine its ULLS specific costs, is reasonable; and
    - increase of a number of input parameters by one standard deviation to take account of claimed asymmetric social consequences of errors in setting the WACC, is reasonable;
- whether the approach taken by Telstra to determine its ULLS specific costs is reasonable and, in particular, whether:
    - it is reasonable for Telstra to rely on the Specific Costs Model ("the SC model") it created for the purposes of developing the undertakings; and
    - what it refers to as its Specific Cost Calculations ("the SC Calculations") and estimates of its actual costs and its method of allocating those costs are reasonable; and
- whether, as claimed by Telstra, certain touchstones, namely:
    - historic and current cost estimates derived from Telstra's record keeping rules accounts ("the RKR accounts");

- an estimate of its costs derived from a model developed in 1998-1999 by NERA Economic Consulting ("NERA") for the Commission and modified by the Commission in 2000 ("the NERA model"); and
- international benchmarks,

demonstrate the reasonableness of the $30 charge.

The issues listed above are by no means the only issues addressed in our reasons, nor are they the only issues that were addressed during the course of the review.

9. CONSISTENCY WITH THE STANDARD ACCESS OBLIGATIONS

43 The SAO imposed on Telstra under s 152AR(3)(a) is to supply "an active declared service" to service providers. The Commission declared the ULLS a "declared service" pursuant to s 152AL. We must not accept Telstra's undertakings unless we are satisfied that they are consistent with the SAOs that are applicable to Telstra: s 152BV(2)(b). In deciding whether we might be so satisfied, we were faced with the following issues:

(a) whether the undertakings complied with the obligation in s 152AR(3)(a) to supply an active declared service, the ULLS, or whether the undertakings were given in relation to a service, the Telstra ULLS, which was different from the ULLS as declared and so limited in scope as to preclude us from being satisfied, as required by s 152BV(2)(b), that the undertakings were consistent with the SAOs; and

(b) whether either of the equivalency SAOs (s 152AR(3)(b) and s 152AR(3)(c): par [7]) impose an obligation on Telstra to inform a service provider to whom it supplies the ULLS of a network upgrade.

44 The issue in par [43(a)] arises because the description of the ULLS, which is the subject of the Commission's declarations is different from, and not co-extensive with, the description of the ULLS which is the Telstra service, the subject of the undertakings. Specifically:

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

- the undertakings do not specify prices for the ULLS where the end-user is connected to IRIM/RIM/CMUX units and therefore do not cover connections to any of these types of network nodes.

Nothing turns on these differences as the ULLS supplied by Telstra falls within the description of the ULLS in the declarations. Telstra's ULLS answers the description of the ULLS in the declared service in the following respects:

- a continuous metallic twisted pair is an unconditioned communications wire;
- the use of that metallic twisted pair between "the Network Boundary at the ULL End Customer Premises and a ULL POI [point of interconnection] associated with the TCAM serving that ULL End Customer" as described in the undertakings, is a use between "the boundary of a telecommunications network at an end-user's premises and a point on a telecommunications network that is a potential POI located at or associated with a customer access module and located on the end-user's side of the customer access module" as described in the declarations; and
- although the undertakings do not deal with the charge for a service with ULL POIs which connect with IRIM, RIM or CMUX units, they do deal with services in which ULL POIs connect with RSSs and RSUs so that there is still a use as described in the declarations.

45 The issue in par [43(b)] arises because of the contention that the Network Modernisation Provisions contained in the undertakings are not consistent with Telstra's obligation under s 152AR(3)(b) to take all reasonable steps to ensure that the technical and operational quality of the ULLS is equivalent to that which Telstra supplies to itself. Optus argued that in order for Telstra to meet its obligations, Optus would need to be given notice of all the details of network modernisation that would materially affect its operations at the same time as Telstra became aware of such matters, in order to allow it to respond at the same time, and in an equivalent manner, as Telstra. Optus contended that the Network Modernisation Provisions (par [28]) failed to provide such notice and instead provided that access seekers may only be provided with fifteen weeks notice.

46 We do not consider that the equivalency SAOs (subs 152AR(3)(b) and (c)) impose an obligation on Telstra to inform a service provider of a network upgrade that would impact on

the provision of an active declared service. The subject-matter covered by those subparagraphs relates to matters not directly involved in the fact of notification of a network upgrade. We adopt, for the purpose of the argument, the definition of "Network Upgrades" contained in cl 6.1 of the Service Schedule which is Attachment A to the undertakings (par [28] above). Insofar as that definition is relevant to a notification by Telstra of a Network Upgrade, the notification does not deal with or encompass components of the technical and operational quality (including ordering and provisioning which precede the supply of the service) of the service "supplied" to the service provider but rather relates to a forewarning or notification of an interruption, alteration or change to that service. Further, it does not deal with or encompass components of fault detection, handling or rectification of the service of a technical and operational quality or the timing of such fault detection, handling and rectification of the service. The reference to "timing" in s 152AR(3)(c) is a reference to the timing of the fault detection, handling and rectification of the service; it is not a reference to the timing of the giving of any notice of any matter by an access provider to a service provider.

47 Put shortly, the equivalency SAOs do not give rise to any obligation on the part of Telstra to give any particular type or period of notice of any Network Upgrades that will affect the provision of the ULLS. To that extent, and in that respect, the undertakings are consistent with the SAOs applicable to Telstra. They do not contain any provision relating to the manner or period of notification of any Network Upgrades which impinge upon, or are inconsistent with, those obligations.

48 It is necessary to distinguish between the nature, content and effect of any Network Upgrade and the period of notification to be given to a service provider of any such proposed Network Upgrade. The former is covered by the equivalency obligations contained in subss 152AR(3)(b) and (c), the latter is not so covered.

49 It is of course a separate and further enquiry whether the provisions in the undertakings relating to network modernisation – particularly in relation to the period of notification of any proposed Network Upgrades – are reasonable having regard to the matters specified in s 152AH and the objectives in s 152AB.

50 In any event, we are satisfied that the provisions of the undertakings, including the Network Modernisation Provisions, are consistent with the SAOs that are applicable to Telstra. There is no provision in the undertakings which inhibits or prevents Telstra from:

- ensuring that the technical and operational quality of the ULLS it supplies (including ordering and provisioning) is equivalent to that which Telstra provides to itself; or
- ensuring that service providers receive, in relation to the ULLS it supplies, fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which Telstra provides to itself.

51 For the reasons given above, we do not accept Optus' submission that in order for the Network Modernisation Provisions in the undertakings to be consistent with the SAOs, Optus would need to be given notice of all of the details of any network modernisation that would materially affect its operations, and allow it to respond at the same time, and in an equivalent manner, as Telstra becomes aware of such matters. We do not accept that such notification is part of the technical and operational quality of the service supplied by Telstra to itself. The notification provision contained in the undertakings (cl 6.2, par [28] above) is not, in its terms, inconsistent with any of the SAOs.

52 We also do not accept the submission of the other intervenors that s 152BV(2)(b) requires us to reject an undertaking which contains Network Modernisation Provisions unless we are satisfied that Telstra will, in every instance, exercise the Network Modernisation Provisions in a way which is consistent with the obligation under s 152AR(3)(b). As noted earlier, we do not accept that the notification provision in the Network Modernisation Provisions is covered by s 152AR(3)(b) but we accept that the nature of any Network Upgrade may well fall within the terms of ss 152AR(3)(a) and (b). The submissions of the other intervenors misconstrue the terms of s 152BV(2)(b) which requires us to compare the terms of the undertakings with the SAOs and determine whether there are any inconsistencies between them. It is the nature of the obligation undertaken by Telstra which is relevant, not whether it will in fact perform that obligation on every occasion in the future when it is required to do so. If the terms of the undertakings are consistent with the SAOs then our enquiry under s 152BV(2)(b) is at an end. We are not required to go further and determine, that is, predict, whether Telstra will, in fact, in the future carry out and implement the obligations it has undertaken to perform.

10. AVERAGING OF NETWORK COSTS

53 One of the principal matters for our determination is whether Telstra's charge of $30 per service per month for access to the ULLS is reasonable. In determining whether that charge is reasonable, we must have regard to the matters set out in s 152AH and the objectives set out in s 152AB. Whether that charge is reasonable requires us to look at the method by which the charge is derived and to determine whether the method is, in all the circumstances, reasonable. We must therefore assess the method adopted to derive the ULLS charge by reference to the same matters set out in ss 152AH and 152AB.

54 Telstra's principal contention in relation to the monthly charge for access to its ULLS was that the charge should be averaged across four bands or areas, namely:

- Band 1 – central business districts ("CBDs");
- Band 2 – metropolitan;
- Band 3 – provincial;
- Band 4 – rural,

to reflect the retail price parity obligation ("RPPO") (section 10.2 below) faced by it in relation to line rental services at the retail level, so that it can recover the efficient costs of its investment in its Customer Access Network ("CAN"). Although Telstra puts its contention in this form, the contention is more accurately expressed in the following form – the monthly charge for access to its ULLS should be set on the basis that it recovers no more than the efficient costs of the supply of the ULLS in all geographic areas and that this charge is based on the average of the costs across those four areas to reflect the RPPO faced by Telstra in relation to line rental services at the retail level, so that it can recover the efficient costs of its investment in its CAN.

10.1 THE BASIS OF TELSTRA'S $30 CHARGE

55 We turn to a consideration of averaging having regard to the particular matters set out in s 152AH and the objectives in s 152AB. Telstra's proposal is to implement a uniform ULLS monthly access charge across the four geographic areas it has identified, based on the average of its estimated efficient costs of supplying the ULLS in these four areas. When we use the expressions "averaging" or "averaged", we use them as shorthand to refer to Telstra's geographic averaging of its costs and to the consequent uniform ULLS monthly access charge across the four areas. Similarly, when we use the expressions "de-averaging" or "de-averaged", we are using them as shorthand to refer to the costs of the supply of the ULLS

to each of the four areas and to the practice of charging different amounts for access to the ULLS Telstra supplies in each of the four bands or areas.

56 The issue of averaging arises because the cost of the ULLS which Telstra supplies varies between the four bands or areas. Telstra has estimated its costs of supplying the ULLS in each of the four bands or areas and says that the cost of supplying the ULLS increases successively from one band to the next, with the cost of supplying an ULLS in Band 1 being the lowest and the cost of supplying an ULLS Band 4 being the greatest.

57 The material before us showed that there are two separate areas in which averaging could most conveniently be considered. The parties considered the impact of averaging in urban areas (in which they included bands 1 and 2) and in rural areas (in which they included bands 3 and 4). We follow the same path, recognising that Telstra's cost analysis is broken down into the four bands or areas.

58 In order to set a uniform charge for the ULLS that just recovers the cost of providing the service across all of these bands, a charge must be set that reflects the average cost of providing the service across the whole of the country. In other words, above-cost charges must be set for the ULLS in some areas in order to generate sufficient revenues to cross-subsidise below-cost charges for the ULLS in other areas. Based on Telstra's estimates of providing the ULLS in each of the four bands, averaged access charges for the ULLS would be above the cost of providing the service in the CBD and metropolitan bands, but below the cost of providing the service in the provincial and rural bands. Telstra argued that averaged access charges must be set for the ULLS in order to generate, and preserve, a cross-subsidy from CBD/metropolitan bands to provincial/rural bands.

59 Telstra has derived its monthly charge of $30 per service on the basis that the monthly charge will recover no more than its costs of supplying the ULLS and a reasonable return of, and return on, capital employed in making the service available. Telstra's cost estimates are based on the following elements:

- ULLS network costs;
- ULLS specific costs; and

- an adjustment for the amount Telstra receives from the Universal Service Fund ("USF") as a result of its Universal Service Obligation ("USO").

Based on a number of inputs and assumptions to which we refer later in these reasons, including using a lower and a higher WACC value, Telstra has estimated the averaged costs of supplying its ULLS during the periods covered by the undertakings as set out in the table below:

	Lower value 1/1/06 - 30/6/06	Higher value 1/1/06 - 30/6/06	Lower value 1/7/06 - 30/6/07	Higher value 1/7/06 - 30/6/07	Lower value 1/7/07 - 30/6/08	Higher value 1/7/07 - 30/6/08
Network costs	$24.95	$34.97	$27.47	$38.37	$28.62	$40.26
plus specific costs	$5.65	$5.99	$3.59	$3.90	$2.67	$2.91
less USO adjustment	$0.31	$0.31	$0.29	$0.29	$0.26	$0.26
Total	$30.29	$40.65	$30.77	$41.98	$31.03	$42.91

The network costs described in this table have been estimated by reference to Telstra's PIE II model while the specific costs have been estimated by reference to the SC Model and the SC Calculations. We shall return to these cost estimates later in these reasons.

60 In the case of the lower-value cost estimates outlined in par [59] above, the averaged costs may be contrasted with Telstra's estimates of its efficient lower-value network costs per ULLS per month for each of the four bands based on its PIE II model:

	1/7/05-30/6/06	**1/7/06-30/6/07**	**1/7/07-30/6/08**
Band 1	$[X]	$[X]	$[X]
Band 2	$[X]	$[X]	$[X]
Band 3	$[X]	$[X]	$[X]
Band 4	$[X]	$[X]	$[X]
Averaged cost	$24.95	$27.47	$28.62

Telstra's estimates of its efficient higher-value network costs per ULLS per month for each of the four bands were:

	1/7/05-30/6/06	1/7/06-30/6/07	1/7/07-30/6/08
Band 1	$[X]	$[X]	$[X]
Band 2	$[X]	$[X]	$[X]
Band 3	$[X]	$[X]	$[X]
Band 4	$[X]	$[X]	$[X]
Averaged cost	$34.97	$38.37	$40.26

Telstra averaged its lower-value and higher-value network cost estimates using the following weights:

	05/06	06/07	07/08
Band 1	[X]%	[X]%	[X]%
Band 2	[X]%	[X]%	[X]%
Band 3	[X]%	[X]%	[X]%
Band 4	[X]%	[X]%	[X]%

61 Telstra accepted that if there was no RPPO imposed on it, fully de-averaged ULLS charges would be a sensible policy from an economic perspective. It contended that the RPPO, in effect, required it to charge the same price for line rental services at the retail level in all areas. (This contention is an over-simplication of the content of the RPPO and does not take into account the consequence of bundling line rental services with other services. We return to this issue later in these reasons). According to Telstra, a policy of fully de-averaged ULLS charges would allow both retail and wholesale prices to reflect costs in accordance with standard economic principles. But, it submitted, where an RPPO existed, de-averaged ULLS charges encouraged "cream-skimming" by access seekers with the effect that the costs of its CAN would not be recovered and competitive activity in rural areas would be discouraged. By contrast, averaging of ULLS charges assisted in matching the structure of retail and wholesale prices.

62 Cream-skimming, as explained by Telstra, occurs when access seekers take advantage of the arbitrage opportunity that exists if cost-based charges are set for the ULLS (a key input into the provision of a retail line rental service) in urban areas in circumstances where Telstra needs to set above-cost prices for retail line rental services in these areas in order to meet its RPPO. If access seekers chose only to operate in urban areas, they would be able to set prices for the retail line rental services they offer that reflect the cost of providing the service

in these areas if they were able to acquire the ULLS for de-averaged charges. However, given such retail prices would be cost-based, they would necessarily be below the above-cost prices for the retail line rental services set by Telstra in order to comply with its RPPO. If Telstra chose to respond by lowering its own retail prices towards its cost of production, it would therefore reduce the above-cost revenue it would receive from providing retail line rental services in urban areas. In turn, this would undermine its ability to fund the cross-subsidy arrangement it believes is necessary to meet the RPPO in rural areas. Alternatively, Telstra could choose not to respond to competition and retain above-cost prices for retail line rental services in urban areas. If it did so, it would be expected to lose most (if not all) of its retail line rental customers in urban areas. Telstra argued that under either strategy it would no longer be able to earn sufficient revenues in total to recover the efficient costs of its CAN.

10.2 TELSTRA'S RETAIL PRICE PARITY OBLIGATION (RPPO)

63 The RPPO arises in the following circumstances. Under cl 19A of the *Telstra Carrier Charges – Price Control Arrangements, Notification and Disallowance Determination No. 1 of 2005 (as amended by the Telstra Carrier Charges – Price Control Arrangements, Notification and Disallowance Determination No. 1 of 2005 (Amendment No. 1 of 2006))* ("the Price Control Determination"), Telstra must offer "basic line rental services" to residential, charity and business end-users, in non-metropolitan areas, at the same or a lower price and on the same price-related terms it offers to such end-users in metropolitan areas. Further, Telstra must offer "basic line rental services" within a bundle in all non-metropolitan areas at the same or lower price and on the same price-related terms as it offers "basic line rental services" in a comparable bundle in metropolitan areas.

64 For the purposes of cl 19A:

- "metropolitan area" means the inter-carrier charge area for Sydney, Melbourne, Brisbane, Perth or Adelaide;
- "non-metropolitan area" means any area of Australia other than a metropolitan area;
- "price-related terms" means terms relating to price or a method of ascertaining price;
- "basic line rental service" means a line rental supplied in conjunction with a service supplied to a customer in order to comply with the requirement to provide

> pre-selection under a determination made by the Australian Communications and Media Authority under Part 17 of the *Telecommunications Act* 1997, other than a line rental in respect of which the customer contractually agrees not to exercise the right to pre-select in favour of a carriage service provider other than Telstra.

(The Price Control Determination is made pursuant to ss 154(1), 155(1) and 157(1) of the *Telecommunications (Consumer Protection and Service Standards) Act* 1999 (Cth) ("the TCPSS Act")).

65 It was accepted that at the present time, and on the date of the Price Control Determination, Telstra's basic line rental services were those supplied under Telstra's HomeLine Part and BusinessLine Part services.

66 The consequence is that Telstra is required to provide its HomeLine Part and BusinessLine Part line rental services in non-metropolitan areas at the same or a lower price, and on the same price-related terms, as it offers these services to customers in metropolitan areas. These two services are unbundled services. HomeLine Part service is defined by Telstra in the terms and conditions on which it offers its Basic Telephone Service. The HomeLine Part service is available where a customer does not preselect Telstra for long-distance calls, international calls and calls to mobile numbers. A subscriber to the HomeLine Part service obtains:

- connection to Telstra's Public Switched Telephone Network ("PSTN");
- the ability to make and receive certain types of calls, basically local calls;
- a telephone number;
- a free listing of the telephone number in a telephone directory.

A subscriber to the HomeLine Part service who wishes to make long-distance calls, international calls or calls to mobile numbers must either preselect a carrier other than Telstra for these calls or use an override code to select Telstra, in which case further charges will be incurred.

67 The BusinessLine Part service is in similar terms but applies to business end-users rather than residential.

68 Telstra also supplies line rental services as a part of bundles that include various calling services (such as fixed-to-mobile calls, long distance calls and international calls). However, the RPPO requirement in the Price Control Determination does not apply to these line rental services when they are supplied as part of a bundle of services so long as the line rental service supplied in these bundles is not a "basic line rental service" as described in par [64] above.

10.3 TELSTRA'S UNIVERSAL SERVICE OBLIGATION (USO) AND THE UNIVERSAL SERVICE FUND (USF)

69 Underpinning Telstra's argument for the averaging of charges was its proposition that it needed to subsidise the provision of telecommunications services in rural areas in Australia because of its RPPO. It was accepted that the cost of providing these services in provincial and (especially) rural areas was significantly higher than in urban areas, and that Telstra was required to provide line rental services in provincial and rural areas, and to end-users, that were unprofitable.

70 The need to subsidise the provision of telecommunications services in rural areas raises for consideration Telstra's USO which in turn gives rise to a consideration of what Telstra receives from the USF.

71 The USO is described in s 9(1) of the TCPSS Act in the following terms:

> *"For the purposes of this Act, the* **universal service obligation** *is the obligation:*
>
> *(a) to ensure that standard telephone services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business; and*
>
> *(b) to ensure that payphones are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business; and*
>
> *(c) to ensure that prescribed carriage services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business."*

Telstra is subject to the provisions of the USO by virtue of the provisions of ss 11, 11A and 12D of the TCPSS Act.

72 The USF arises through the imposition of a levy upon industry participants (telecommunications carriers), including Telstra, under the *Telecommunications (Universal Service Levy) Act* 1997 (Cth). At the present time, Telstra is the only universal service provider. The levy is assessed, collected, recovered and distributed under Div 13 of the TCPSS Act. The amount of the subsidy to be paid to a universal service provider in relation to its USO is determined by the Minister for Communications, Information Technology and the Arts under Div 9 of the TCPSS Act: s 16. The TCPSS Act does not, however, set out any mechanism or formula by reference to which the subsidy to Telstra is to be determined, nor is the subsidy linked to Telstra's costs in fulfilling its USO. The Minister may take advice from the Australian Communications and Media Authority. On 21 June 2005, the Minister set the subsidies for the financial years 2005/2006, 2006/2007 and 2007/2008.

73 Telstra takes into account the amount of the subsidy it receives when calculating its ULLS charge but it contends that the subsidy does not provide for full recovery of the deficit incurred in serving end-users to whom it provides a service at a loss.

74 The Commission submitted that Telstra had not provided any evidence to suggest that the USF would be incapable of meeting any cost shortfall that would exist in rural areas for an efficient forward-looking network. The Commission also submitted that in order to determine whether the ULLS charge proposed by Telstra was reflective of its efficient costs, the USF subsidy should be calculated by reference to the subsidy that Telstra would receive if a forward-looking network were built. The Commission argued that Telstra's actual subsidy was irrelevant. We do not accept this line of reasoning. The fact is that the Minister has already set the USF subsidies for the periods covered by the undertakings. The proposition that we have to consider, whether Telstra's costs underpinning its proposed monthly charges are efficient costs, does not mean that we have to undertake a hypothetical exercise to determine the appropriate amount of the USF subsidy during the periods of the undertakings. The existence of issues in relation to Telstra's costs, whether they are efficient costs and whether the PIE II model accurately estimates efficient ULLS network costs, does not mean that we should disregard the USF subsidies actually fixed by the Minister in relation to the periods covered by the undertakings.

10.4 THE AVERAGING ISSUE

75 Telstra supported its case for averaging by relying on the report of Professor David Sappington, an eminent expert in the field of economics and regulatory policy in the telecommunications industry.

76 Professor Sappington's conclusions, in summary, were that uniform ULLS charges:

- were consistent with, and helped to mitigate the deleterious effects of, the RPPO;
- would limit cream-skimming in urban areas that undermined the RPPO;
- could enhance competitive activity in rural Australia and help to limit the operation of inefficient suppliers in urban areas;
- could help to support a low uniform charge for an unbundled basic access service throughout Australia; and
- constituted a reasonable policy in Australia as long as Telstra continued to face the RPPO.

77 Professor Sappington's analysis was based upon three explicit assumptions:

- Telstra was required to charge the same price for unbundled basic access services to residential (and business) end-users throughout Australia;
- the price that Telstra charged for unbundled basic access services to residential end-users could exceed Telstra's unit production cost in urban areas but often was below Telstra's unit production cost in rural areas; and
- Telstra's efficient unit cost of producing the ULLS was generally higher in rural areas of Australia than in urban areas.

78 It appears that there was a fourth assumption underpinning some of Professor Sappington's analysis, namely, that uniform ULLS access charges, or averaging, is only effective to mitigate the effects of the RPPO and avoid the consequences of cream-skimming when new entrants in urban areas, or retail competitors of Telstra in urban areas, are precluded from investing in alternative urban networks, or if it is not technically or commercially feasible for competitors to roll out alternative urban networks.

79 There was no material placed before us to the effect that bypass, whether efficient or inefficient, by access seekers would not be possible. Indeed there was some evidence to the contrary, namely, that bypass of Telstra's network was possible. In its response in July 2006 to the Commission's Position Paper, *A Strategic Review of the Regulation of Fixed Network Services*, Telstra stated that:

> *"In these CBDs* [the central business districts of Sydney, Melbourne, Brisbane, Adelaide and Perth], *there are multiple competing fixed and wireless access networks that provide effective competitive infrastructure to Telstra's network."*

Further, Optus pointed to the fact that bypass of Telstra's existing network had already occurred to some extent. In the Commission's report, *Telecommunications Infrastructure in Australia 2004* (June 2005), it was noted that the traditional copper network accounted (in 2004) for 87.2% of subscriber connections and that other technologies (such as Hybrid Fibre-Coaxial Cable ("HFC") – 11.86% and optical fibre – 0.6%) accounted for the remainder.

80 The Commission also noted in its *Final Determination on its Declaration Inquiry for the ULLS, PSTN OTA and CLLS* (July 2006) that a number of local access networks based on microwave, fixed wireless, optical fibre and satellite technologies had emerged in recent years. It identified the alternative network infrastructure in place in capital cities as of June 2004 and said they were mostly in discrete geographic areas. It observed:

> *"While these networks may have the technical capability to deliver services that are, to a degree, substitutable for those offered via Telstra's copper customer access network (CAN), most of these networks are located in discrete geographic areas. For instance, optical fibre networks are mostly located in central business district (CBD) areas and are targeted toward corporate customers. Some fibre-based and/or HFC networks are also deployed in certain regional areas such as the ACT and some regional cities in Victoria, NSW and other areas. Many of the wireless networks that have*

been developed recently are targeted at end-users in regional and remote areas."

We also note, and take into account, the following observation of the Commission:

"In addition, the mere existence of alternative networks does not necessarily indicate that there is effective competition in particular areas. Effective competition will depend on factors including, but not limited to, the height of barriers to entry, competitors' wholesale and retail market concentration levels, and the prices and costs of services provided. Hence, it is when conditions for competitive new entry exist and there is evidence of effective competition in an appropriately defined market (or the prospect of this in a clearly defined time-frame) that removal of regulation should be considered.

Therefore, in addition to the evidence that shows alternatives are fragmented, the Commission has not received any evidence that these alternative networks actually constrain Telstra's prices and behaviour. Instead, it appears that Telstra generally has a large degree of market power in originating and terminating voice calls, as well as the provision of fixed services more generally."

81 The significance of the existence, or possibility, of bypass, whether it be efficient or inefficient, is that Telstra's rationale for averaged ULLS access charges is undermined if new entrants or retail competitors in urban areas can bypass the Telstra network and avoid having to pay the averaged ULLS charge. To the extent that bypass of the CAN is significant in urban areas, there will be less users of the CAN in urban areas from which Telstra can extract above-cost revenues through its pricing of retail line rental services. In this situation, Telstra's ability to subsidise the losses incurred in rural areas with the excess of revenue over cost obtained in urban areas will be lost (or significantly diminished) and the consequence will be similar to that which Telstra contends will occur as a result of cream-skimming.

82 Telstra submitted that no compelling case had been made that inefficient bypass would be widespread under averaging or that the risk of such bypass told against averaging. It relied upon the views expressed by CoRE Research that entry into the market, even if subsidised, would not occur unless it was efficient and that entrants would make efficient build versus buy decisions. There is some merit in this submission as there is in the other submissions advanced by Telstra as to why the risk of bypass did not totally undermine its arguments in support of averaging. Nevertheless, as noted earlier, there was some evidence before us that bypass had occurred.

83 However, the reasons for that bypass, specifically whether they were cost-driven or demand-driven, were never articulated. We cannot be confident what the drivers of bypass might be, nor the quantum of bypass, should demand-side signals change, as would be the case with an averaged access charge which would be higher than hitherto had existed in urban areas.

84 One of Professor Sappington's basic propositions was that de-averaged ULLS charges, coupled with the RPPO, would enable inefficient competitors to thrive in urban areas while precluding the operation of efficient competitors in rural areas.

85 Professor Sappington noted that, under de-averaging, the price structure imposed by the RPPO encouraged competitors to service end-users in urban areas of Australia and discouraged competitive activity in rural areas. He observed that even a competitor with a cost structure similar to Telstra's could service end-users profitably in urban areas by charging a lower price than Telstra charged, as Telstra's price is set at an above-cost level in urban areas in order to help finance the below-cost pricing that is implemented in rural areas to comply with the RPPO.

86 Professor Sappington considered that, in theory, Telstra could lower the price it charged for unbundled basic access services in urban areas to match the price charged by competitors, but under the RPPO, this price reduction would require an identical price reduction in rural areas, which together would reduce Telstra's earnings unduly. He considered that Telstra might conceivably reduce the prices it charged for bundled telecommunications services in urban areas only, leaving the price of unbundled basic access unchanged throughout Australia. Telstra might then consider raising the prices of bundled services in rural areas to offset the revenue reduction resulting from the lower prices of bundled services in urban areas. However, Professor Sappington noted that rural end-users could avoid the high prices for Telstra's bundled services in rural areas by purchasing basic access from Telstra (at the RPPO price) and securing any additional desired services from competitors.

87 It was critical to Professor Sappington's analysis that the typical discipline of competitive markets, whereby prices were driven to the level of costs so that prices for retail line rental services would be set at levels that reflected the de-averaged costs of providing

these services, could not influence Telstra's pricing because of the RPPO. He contended that once Telstra's prices for basic access services, were precluded from reflecting the de-averaged costs of producing those services, it was best to set wholesale charges for the ULLS that similarly departed from the de-averaged costs of producing the wholesale services.

88 Professor Sappington noted that in the report *Averaging vs. De-averaging*, provided to the other intervenors by Marsden Jacob Associates, it was suggested that uniform charges would enable Telstra to achieve a competitive advantage that would allow it to undercut its urban competitors and capture greater market share. This suggestion is not warranted if you accept Professor Sappington's thesis that averaging of charges is necessary to enable Telstra to subsidise its rural services, having regard to the RPPO. Professor Sappington noted that the RPPO prevented Telstra from reducing the price it charged for unbundled basic line access in urban areas of Australia without implementing the same price reduction in rural areas. Therefore, Professor Sappington argued, Telstra was not at liberty to engage in the selective price cutting in urban areas that Marsden Jacob Associates appeared to envision. This is not necessarily correct. Telstra might not be at liberty to engage in selective price cutting of the retail line rental service which is subject to the RPPO, but it is at liberty to engage in selective price cutting in urban areas in relation to bundled products which are not subject to the RPPO. This proposition also applies to any other line rental service which is not subject to the RPPO.

89 However, Marsden Jacob Associates might be correct in their suggestion if the position is that Telstra is able, by reference to other services provided over its CAN, to accumulate profits from the provision of those services which enable it to subsidise rural services thereby releasing its urban charges from the need to subsidise rural services.

11. DOES AVERAGING PROMOTE THE LONG-TERM INTERESTS OF END-USERS?

90 The answer to this question requires us (s 152AB(2)) to have regard to the extent to which averaging is likely to result in the achievement of the objective of:

- promoting competition in markets for listed 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 listed services are supplied; and
    - any other infrastructure by which the listed services are, or are likely to become, capable of being supplied.

91 We turn first to the objective of promoting competition in markets for listed services.

11.1 THE MEANING OF PROMOTING COMPETITION IN S 152AB(2) OF THE ACT

92 The ULLS can be used to provide a range of telecommunications services, including fixed-line voice services (such as the provision of line rental, local call and long distance call services) and broadband internet services. We consider the markets for these services to be the relevant markets within which to determine whether averaging is likely to promote competition.

93 Telstra argued that averaging was likely to promote competition in urban areas as de-averaged charges for the ULLS, in the face of the RPPO, would prevent Telstra from competing with access seekers in urban areas, even if it was equally as efficient as, or more efficient than, access seekers, because of the existence of cream-skimming.

94 Telstra also argued that averaging would be likely to promote competition in rural areas because access seekers could obtain access at charges less than cost and so compete in an area otherwise not open to them. If charges were de-averaged, competition would be unlikely to occur in rural areas. Even an efficient access seeker would be unable to compete as retail prices would be held below cost by Telstra's obligation to meet its RPPO. Put shortly, Telstra contended that de-averaged charges encouraged inefficient competition in low cost urban areas and inhibited or prevented efficient competition in high cost rural areas. Averaged charges avoided these consequences because, as long as Telstra must meet its RPPO, they were the only means for encouraging efficient infrastructure-based competition in rural areas.

95 It is important to remember that in this context we are considering the likelihood of the promotion of "competition", not the promotion of competitors. We are concerned with

the process of competition and whether effective competition is likely to be promoted. We are not concerned to determine whether particular market outcomes will be achieved by averaging.

96 In the context of determining whether to declare a service under Pt IIIA of the Act, the Tribunal stated in *Sydney International Airport* [2000] ATPR 41-754 at 40,775 (par [106]):

> *"The Tribunal does not consider that the notion of "promoting" competition in s 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of "promoting" competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration."*

That observation was made in the context of s 44H(4)(a) which at the time of the decision required the Minister to be satisfied that "access … would promote competition …". That subsection (amended by the *Trade Practices Amendment (National Access Regime) Act 2006* (Cth)) now requires the Minister to be satisfied that "access … would promote a material increase in competition …". We consider, with one qualification, that that observation applies to the meaning of "promoting competition" in s 152AB(2)(c) of the Act: *Seven Network Limited (No 4)* [2004] ACompT 11 at [124]. The qualification is that pursuant to s 44H(4)(a) (before its amendment) the Minister (and the Tribunal on review) had to be satisfied that access or increased access "would promote competition" in a market, whereas pursuant to s 152AB(2) we must have regard to "the extent to which" the term or condition is likely to result in the achievement of the objective of promoting competition in relevant markets. The difference in language recognised the different legislative regimes in Pt IIIA and Pt XIC. Section 44H(4)(a) (before its amendment) did not require a consideration of the extent to which access or increased access would promote competition in a market. Now s 44H(4)(a) requires the Minister (and the Tribunal on review) to be satisfied that access or increased access would promote a material increase in competition in a market. When, for example, s 152AB(2)(c) directs the Commission (and the Tribunal on review) to have regard to the extent to which averaging is likely to result in the achievement of promoting competition in rural areas, the Commission (and the Tribunal on review) must consider the

extent of the competitive impact of averaging in rural areas and the likelihood of that extent, not only the improvement of the environment for competition.

97 Competition is a process, rather than a situation: *Re Queensland Co-Operative Milling Association and Defiance Holdings* (1976) 8 ALR 481 at 514-515. It is the way in which firms interact, and respond to each other, to ensure they best achieve their individual objectives. Under traditional economic theories of the firm, firms are normally considered to operate with the objective of maximising profits. In general, it is assumed that firms with this objective will compete to win market share from each other. In turn, competition between firms in this way is desirable from a consumer perspective because it creates incentives for firms:

- to lower their prices towards their costs of production in order to attract more consumers to their business so that they can expand their market share; and
- to seek greater productive efficiencies (now and over time) so that they may lower their costs of production. In turn, this enables them profitably to lower prices for consumers in ways that will attract more consumers to their business in order to increase their share of the market.

98 It is in the interests of consumers that efficient producers of services survive the process of competition as they ensure that a given service can be profitably produced at the lowest possible cost. In turn, efficient producers are able profitably to provide services to consumers at lower prices. The process of competition allows efficient suppliers to survive and displace less efficient suppliers in well functioning markets. Inefficient suppliers will produce their services at a higher cost than their rivals. They will be unable profitably to lower the prices they set for consumers to the same level as more efficient producers, with the consequence that they will be unable to win consumers and will therefore be forced out of the market. If, however, efficient suppliers are unable for other reasons to remain in the market, prices will not reduce to levels consistent with the costs of the efficient suppliers.

99 Accordingly, we believe it is important not to confuse the objective of promoting competition with the outcome of ensuring the greatest number of competitors. That is, the Act aims to promote competition because of the benefits that result from the *process* of competition, such as lower prices for consumers and the displacement of inefficient suppliers

by efficient suppliers of services. As the Tribunal observed in *Sydney International Airport* (supra) at par [108]:

> *"The Tribunal is concerned with furthering competition in a forward looking way, not furthering a particular type or number of competitors."*

(See also *Sydney Services Pty Limited* [2005] ACompT 7 at par [136]).

100 Whether averaging will promote competition in the relevant markets for listed services depends upon whether averaging will enable efficient suppliers to operate in dependent markets. The aim is not to ensure that the greatest number of competitors – irrespective of their level of efficiency – can enter and successfully remain in relevant markets. Rather, it is to ensure the existence of the conditions necessary to promote effective competition.

101 We agree with Telstra's proposition that it is just as important that it is able to compete on the basis of its own efficiencies in telecommunications markets as it is that other competitors are able to compete on the basis of their own efficiencies in these markets.

11.2 IS AVERAGING LIKELY TO PROMOTE COMPETITION IN MARKETS FOR LISTED SERVICES IN URBAN AREAS?

102 The Commission argued that averaging would not promote competition in the markets for listed services in urban areas because averaged charges would be higher in urban areas than de-averaged charges. This would increase the cost of the ULLS to access seekers choosing to compete in urban areas (relative to that under de-averaged charges) and their ability to compete in urban areas would be reduced.

103 The Commission argued that this was particularly the case where the marginal cost to Telstra of providing equivalent services to end-users remained the same, regardless of what charging structure was adopted in the undertakings. The increase in marginal cost to access seekers as a consequence of the averaged ULLS charges would put them at a competitive disadvantage with Telstra.

104 The Commission and Optus argued that averaging might discourage access seekers from making investments in the infrastructure necessary to provide retail services using the ULLS in preference for other wholesale products offered by Telstra that would involve less

investment. Optus also argued that the negative impact on the margins and commercial returns of Telstra's competitors resulting from averaging would discourage investment in ULLS-based infrastructure (such as DSLAMs), causing a further decline in competition in the long term.

105 Optus contended that in order to use the ULLS, access seekers must incur a significant one-off capital outlay and recurring operating costs in addition to monthly access payments to Telstra, including the capital costs of installing DSLAM equipment in Telstra exchanges and the costs required to connect that equipment to the network. It argued that access seekers' margins were highly sensitive to ULLS access charges, and significant negative margins would be incurred if access charges were averaged. In addition, it said the payback period on ULLS investments would increase by more than [X]%.

106 The other intervenors relied upon the report by Marsden Jacob Associates, *Averaging vs. De-averaging*, which stated:

> *"Entrants have built their business cases under the assumption that price will remain de-averaged (at least in the short to medium run). Any sudden changes to regulatory sentiment would therefore cause serious disruption in the market.*
>
> *Averaging of the ULL price may force some access seekers to pass on increased costs to end users, face a squeeze on their margins or ultimately exit the market if competitive margins are completely eroded."*

107 Telstra argued that while averaging would lead to higher access charges in urban areas than would occur under de-averaging, this did not mean the process of competition would be undermined. It did not believe that averaging necessarily meant that the ability of all service providers – including Telstra and its competitors – to compete in these markets was inhibited.

108 Telstra responded to the argument that averaged charges for the ULLS might lead access seekers to use alternative products that involved less infrastructure investment by submitting that:

- investment in both the ULLS and alternative products involved some degree of sunk costs, although the extent might differ depending on the technologies deployed; and

- averaging would not alter the balance between these types of investment in a way that would alter the degree of competition.

109 We accept that an increase in Telstra's ULLS charges is akin to an increase in production costs for access seekers wishing to utilise the ULLS to provide services to end-users. We also accept that Telstra's proposed averaged ULLS charges would be higher than de-averaged charges in urban areas. The higher the averaged charge, the higher the production costs for access seekers wishing to use the ULLS to provide services to end-users. This means that when acquiring the ULLS in urban areas, access seekers will pay a charge that is above Telstra's cost of providing access to it.

110 We do not consider, however, that this necessarily means access seekers will be unable to compete with Telstra to provide fixed-line telecommunications services (including broadband internet services) to end-users in urban areas using the ULLS. In order for access seekers to compete with Telstra using the ULLS, they will need to be able to set retail prices that enable them to recover the cost of the ULLS and any additional costs they incur when providing retail services to end-users. In normal circumstances, one would expect an access seeker could only compete if Telstra's ULLS charges reflected its costs of providing the service and if the access seeker were at least as efficient as Telstra in performing the other stages of the production process necessary to provide services to end-users. If (as would be the case in urban areas were Telstra to average its ULLS charges) the ULLS charges were above Telstra's costs of providing the service, then Telstra would be able to reduce the price of retail line rental services to end-users below the price an access seeker could offer on account of it facing a lower cost than the access seeker pays for the ULLS.

111 However, in circumstances where Telstra must set prices for retail line rental services at above-cost levels in urban areas in order to subsidise below-cost pricing in rural areas, Telstra may not be able to reduce retail prices towards its cost of providing the service in urban areas if it sets averaged ULLS charges. This is because doing so would deprive it of the above-cost revenues it would need to recover the total costs of its CAN. In this context, therefore, Telstra may be forced to price retail line rental services as if it faced the same average costs in all areas. Where that is the case, access seekers may still be able to compete in urban areas if the ULLS charges are averaged. Provided access seekers are at least as efficient as Telstra at the non-ULLS stages of production of fixed-line retail services, they

should be able to compete with Telstra if it is forced to set retail prices that reflect average costs in all areas.

112 This proposition may be illustrated by an example. Assume that the cost of the ULLS line in urban areas is $10, while the cost of the ULLS line in rural areas is $60. Assume also that the averaged cost of the line is $30 and that the other costs involved in providing line rental services to end-users is $10 per line. If Telstra were required to set a uniform price for retail line rental services that just recovers the costs of providing these services, it must set its price at $40 per line in all areas (the average line cost of $30 plus the additional cost of $10 per line). In this environment if Telstra set averaged access charges for access seekers that reflected the average cost of providing the service in all areas, the ULLS charge would be $30 per service. If access seekers were equally (or more) efficient at the other stages of production as Telstra, they should be able to match Telstra's line rental price of $40 per service. This would be the case even if access seekers sought only to operate in urban areas. While Telstra would face a lower cost of providing line rental services in urban areas of $20 per service (the $10 underlying per line cost plus $10 in other costs), Telstra could not reduce its price to this level without making an overall loss across all line rental services it produced in all areas. This is because any reduction in the price of retail line rental services in urban areas would push its average price below average cost such that its total revenues did not cover total costs.

113 To the extent that Telstra must set above-cost prices for retail line rental services in urban areas in order to cross-subsidise below-cost prices for retail line rental services in rural areas, it is likely that it would be limited in its ability to set retail prices for services in urban areas that can be provided using the ULLS in a way that would undermine the ability of equally efficient access seekers to compete with it.

114 However, it is not clear whether Telstra needs to set above-cost prices for retail line rental services in urban areas in order to recover the losses it makes from setting below-cost prices for retail line rental in rural areas. The material before us does not enable us to determine whether Telstra makes sufficient above normal profits from the provision of services over its CAN, other than line rental, to balance any losses it may make from the provision of below-cost retail line rental services. If Telstra did earn such above normal profits from the provision of other services over its CAN, it might be able to reduce the price

of retail line rental services in urban areas closer to its costs of production by using the above normal profits to cover the losses it might make from setting below-cost prices for retail line rental services in rural areas. If this were the case, Telstra might be able to set prices for retail line rental in urban areas below those which an access seeker might charge if ULLS charges were averaged and if the access seeker were equally, or more, efficient than Telstra in the non-ULLS, stages of the production process for fixed-line retail services. If this were to be the case, it is possible that the averaged ULLS charges could be used by Telstra to inhibit the ability of efficient competitors to compete with it over the provision of fixed-line retail services in urban areas.

115 Overall, we are not satisfied that averaged ULLS charges would be likely to prevent access seekers that were at least as efficient as Telstra at the non-ULLS stages of the production process for fixed-line retail services in urban areas from being able to compete with Telstra in urban areas. The extent to which the averaged charges would prevent efficient access seekers from competing with Telstra in urban areas would be likely to depend on whether Telstra earns above normal profits from services other than the line rental that it provides over its CAN. There is insufficient material before us to enable us to reach any definitive conclusion on this issue.

116 However, it does not follow that if Telstra did not have above normal profits available to it from the provision of other CAN services to subsidise prices for retail line rental services in urban areas, averaging would actually promote the ability of equally efficient access seekers to compete with it in retail markets in urban areas. Averaging may not inhibit the ability of efficient access seekers to compete with Telstra in retail markets, but that does not mean it enhances their ability to compete. In such a scenario, averaging would neither promote nor diminish competition in urban markets. Accordingly, we do not consider averaging is likely to promote the ability of efficient access seekers to compete in markets for listed services in urban areas to any significant extent.

11.2.1 Would increased ULLS charges resulting from averaging lead to less infrastructure-based competition in urban areas?

117 There are a number of Telstra's wholesale services which an access seeker might use as an alternative to the ULLS to provide services to end-users. There is access to the line sharing service ("LSS"), wholesale line rental ("WLR") services, the local carriage service

("LCS"), the PSTN originating and terminating access ("PSTN OTA") services, and wholesale asymmetric digital subscriber line ("ADSL") services. Access to these services can involve differing levels of infrastructure investment by access seekers. In particular, while the ULLS and LSS require access seekers to deploy significant amounts of their own infrastructure (such as DSLAMs) at Telstra's exchanges, other services – such as WLR and wholesale ADSL services – require a lesser amount of infrastructure investment.

118 Other things being equal, if, as a result of averaging, ULLS charges were to increase in urban areas, the charge relative to Telstra's alternative wholesale services would increase. In turn, given that the ULLS charge represents a cost for access seekers, the relative cost of providing retail services to end-users using the ULLS (as compared to the alternatives) will therefore increase. As a consequence, access seekers may find it more profitable to provide retail services to end-users in urban areas using one (or more) of the alternatives. While the exact extent of substitution between the ULLS and the alternatives will depend on the cross-price elasticity of demand for these services, we accept that it is likely that a higher relative ULLS charge resulting from averaging will be likely to lead access seekers to use less of the ULLS and more of the alternatives.

119 Subject to access seekers not acquiring more of the LSS as an alternative to the ULLS, less use of the ULLS may lead to less infrastructure investment by access seekers. To the extent that there was less take up of the ULLS and more take up of alternative wholesale services that involved a lesser level of infrastructure investment, we accept this may reduce the extent of competition between access seekers and Telstra over those stages of the production process to which the infrastructure investment would have related. In turn, this may reduce the areas of service provision over which access seekers can compete with Telstra.

120 This need not necessarily be an inefficient outcome. To the extent that the alternative wholesale services were priced at averaged cost-based levels, an averaged ULLS charge may prevent inefficient use of, and investment in, the infrastructure by which fixed-line telecommunications services are provided to end-users.

11.2.2 Can Telstra compete in urban areas if it sets cost-based de-averaged access charges for the ULLS?

121 As we noted earlier (par [93]), Telstra argued that de-averaged ULLS charges, in the face of the RPPO, would prevent Telstra from competing with access seekers in urban areas. We have found that, in principle, de-averaged charges for the ULLS could establish an arbitrage opportunity for potential access seekers in urban areas which could have the effect of reducing the price of retail line rental services towards their costs of production in urban areas. While Telstra could choose to respond to any move by access seekers who sought to reduce the price of retail line rental services towards cost in urban areas by lowering its own prices of retail line rental services not subject to the RPPO in these areas, doing so would deprive it of (at least some) above-cost revenues it gains from its pricing of retail line rental services in these areas. As a consequence, it may be limited in the extent to which it can cross-subsidise below-cost pricing of retail line rental services in rural areas if access seekers use de-averaged charges for the ULLS to enter urban areas for the provision of fixed-line telecommunications services.

122 In principle, therefore, it is possible that cost-based de-averaged access charges for the ULLS could prevent Telstra from responding to competition from access seekers in urban areas in a way that would enable it to recover the costs of its CAN. In that sense, therefore, the existence of the RPPO might bring about a result that Telstra can only compete to provide fixed-line telecommunications and broadband internet services to end-users in urban areas if it is prepared to incur a loss across the entirety of the services it provides over its CAN.

123 We do not, however, consider that this means that Telstra would find competing in urban areas to be unprofitable. So long as the access charge for the ULLS in urban areas is cost-based, and Telstra is at least as efficient as access seekers in the other stages of the production process necessary for the provision of fixed-line telecommunications services, Telstra should not need to reduce its price for retail line rental services below its cost of production in urban areas. Accordingly, when viewed in isolation, cost-based ULLS charges in urban areas should not make the provision of retail services in these areas loss-making for Telstra. For so long as Telstra continues to make a normal (or greater) profit from the provision of retail line rental services in a particular area, it will continue to have an incentive to compete for end-users in that area. It is the pricing of retail line rental services in rural

areas that is argued to be unprofitable. Even if this continues to be the case, and competition in urban areas prevents Telstra from fully recovering this loss from its pricing in urban areas, Telstra will still have an incentive to compete in urban areas for so long as its pricing of retail line rental services in these areas is profitable.

124 Telstra would only be expected to choose not to compete in urban areas if any price decreases for retail line rental services in urban areas forced it to decrease its prices for retail line rental services in rural areas. This is because such a price decrease in rural areas would have the effect of increasing its losses in rural areas. We do not consider that Telstra will necessarily need to reduce the price of retail line rental services in rural areas if it responds to competition in urban areas by reducing its price of retail line rental services in urban areas. As indicated in pars [65]-[66] of this Decision, the RPPO only formally applies to a limited range of Telstra's line rental service offerings. Telstra should have considerable freedom to respond to competition in urban areas through the use of unregulated service offerings. So long as it does not reduce the price of the limited number of line rental products that are subject to the RPPO, it should not need to reduce the price of retail line rental services in rural areas as a result of any response it makes to competition in urban areas.

125 Overall, we consider that Telstra will be able to continue to compete in urban areas if it is forced to set cost-based de-averaged charges for the ULLS. While such charges may prevent Telstra from extracting above normal profits to balance losses it may make in rural areas as a result of the RPPO, this does not mean urban areas will, of themselves, be unprofitable.

126 It follows from this analysis that we do not accept Telstra's submission that averaging is likely to promote competition in urban areas.

11.2.3 CONCLUSION ON WHETHER AVERAGING IS LIKELY TO PROMOTE COMPETITION IN MARKETS FOR LISTED SERVICES IN URBAN AREAS

127 Competition is likely to be promoted in a market when the conditions or environment for improving competition in that market are enhanced. Competition will be enhanced when firms that are efficient in providing given services are able to recover their costs and survive in a given market. It is equally as important that Telstra be able to compete to provide

fixed-line retail services to end-users if it is efficient in doing so as it is that efficient access seekers are able to compete.

128 We accept that, under certain circumstances to which we have referred, Telstra may not be able both to compete with access seekers in urban areas and to recover the overall costs of its investment in the CAN if it sets cost-based de-averaged charges for the ULLS in urban and rural areas. Cost-based de-averaged charges for the ULLS should not, however, make competing in urban areas unprofitable if Telstra is at least as efficient as access seekers in the provision of other non-ULLS stages of the production process for fixed-line services. Telstra has already made its investment in the CAN and, provided it is at least as efficient as its rivals, we consider it would continue to seek to compete in urban areas even if de-averaged charges were set for the ULLS. It follows that we do not consider averaging is likely to promote Telstra's ability to compete on the basis of its own efficiencies in urban markets. It will be likely to compete on the basis of its own efficiencies in urban markets in the presence of either averaged or de-averaged ULLS charges.

129 Averaged charges for the ULLS would not necessarily prevent efficient access seekers from competing in urban areas. To the extent Telstra was unable to recover losses it made from setting below-cost prices for retail line rental services in rural areas from services provided over the CAN, other than retail line rental services provided in urban areas, it would be limited in the extent to which it could reduce prices for retail line rental services in urban areas to take advantage of any difference between the charge for the ULLS and the cost of the ULLS in urban areas. While efficient access seekers may be unable to compete on their merits in urban areas if averaged ULLS charges were set and Telstra sought to use above normal profits gained from the provision of other CAN services to cross-subsidise retail prices in urban areas, we do not consider that we have sufficient material before us to reach a view that Telstra has such above normal profits available to it to use for such a purpose. For the reasons outlined in pars [110] to [116] above, we are not satisfied that averaged charges for the ULLS would prevent efficient access seekers from competing in urban areas.

130 This is not to say that we consider that averaging is likely to achieve the objective of promoting competition by enhancing the ability of efficient access seekers to use the ULLS to compete in urban retail markets. Averaging will not bring about a result that the competitive environment for the supply of retail services provided using access to the ULLS in urban

areas will be enhanced, improved or changed in a way which provides a positive boost for the competitive environment.

131 We accept that an increase in ULLS charges as a result of averaging may lead access seekers to use less of the ULLS and more of alternative wholesale products available to them than they would use under de-averaged charges. We also accept this may lead to less infrastructure investment by access seekers.

132 Overall, therefore, we do not consider that averaged ULLS charges are likely to promote competition in urban areas.

11.3 IS AVERAGING LIKELY TO PROMOTE COMPETITION IN MARKETS FOR LISTED SERVICES IN RURAL AREAS?

133 Telstra submitted that while there had been some ULLS take-up in Bands 3 and 4 (regional and rural areas), the ULLS was generally not viable with de-averaged ULLS charges since the de-averaged ULLS charges in regional and rural areas were substantially above the prices for retail line rental services. The existence of the RPPO meant that averaged ULLS charges were the only means for encouraging efficient infrastructure-based competition in rural areas. Telstra argued that if access seekers were more efficient than Telstra in the supply of fixed voice and broadband services in rural areas, averaged ULLS charges would allow them to compete with Telstra's regulated retail prices. Telstra said that such competition would not be possible with de-averaged ULLS charges.

134 The Commission submitted that Telstra's arguments were mere assertion and that the evidence showed that regardless of the structure or level of ULLS charges, demand for the ULLS in rural areas would be minimal because of the technical limitations of the ULLS and the high capital costs of installing competitors' infrastructure in these areas.

135 The Commission pointed out that the ULLS is often sought by access seekers in order to provide xDSL services to end-users but the ability of the ULLS to provide xDSL services to end-users was dependent on the length of the copper wires that comprise the ULLS. The Commission referred to a report prepared by Frontier Economics, *Telstra's ULLS Undertaking – Impact of Average ULLS Charges on Promotion of Competition*, which stated, in relation to xDSL services provided over the ULLS, that:

> *"The speed of service delivery deteriorates as the distance of the customer from the exchange increases. ... The rate at which speed deteriorates with customer distance from the exchange varies with the form of DSL technology used. In general however the speed falls significantly when customers are more than 2 km from the exchange and it is not technically possible, using xDSL technology, to ensure 'broadband' speeds when customers are located more than approximately 5-6 km from the exchange."*

The Commission contended that the length of copper wire was, on average, longer in rural areas than in urban areas, and, in many cases, would result in data transmission being of insufficient speed to satisfy end-users.

136 On this basis, the Commission concluded that if access seekers were unable to use the ULLS to provide broadband services in rural areas, they would be severely constrained in their ability to earn sufficient revenues to cover their costs of capital should they choose to provide services using the ULLS in these areas. It followed, the Commission said, that we could not be satisfied that the imposition of ULLS charges in rural areas that was below the efficient cost of supplying the ULLS would have any material impact on competition in rural areas.

137 Optus submitted that technical limitations inhibited the effectiveness of using the ULLS to provide xDSL services in rural areas and contended that many rural areas might be more efficiently served by other technologies, including WiMAX and satellite communications.

138 Optus contended that even if an averaged charge of $30 was set for the ULLS, access seekers would not find it cost-effective to provide retail services to end-users in rural areas. It relied on the Frontier Economics report which estimated the total incremental monthly cost per customer at a minimum of $161 (including a $30 ULLS charge), compared to $120 average monthly retail revenue. Frontier concluded that:

> *"In regional areas (bands 3 and 4), Telstra's proposed charge is also not likely to promote competition by facilitating new investment by access seekers. Cost information supplied by Optus provides strong support for the notion that the ULL charge will simply have no influence on the likelihood of competitive entry in these areas. Entry is simply too costly relative to the benefits obtainable."*

139 Telstra responded to the Commission and Optus by contending that:

- there was no credible evidence that xDSL technology was ineffective beyond 5 km of an exchange; and
- Frontier Economic's conclusion regarding xDSL technology capabilities in rural areas appeared to be based on Optus' opinion.

140 However, the limitations on xDSL technology were accepted by Telstra's Chief Technology Officer, Dr Hugh Bradlow who said that:

> *"The limitation of DSL technology is that it can only be offered where the customer's premises are within a certain distance from the local telephone exchange. This distance depends on the type of copper cable, (e.g. its thickness) which is used to connect the customer to the exchange."*

141 Telstra said that there was evidence before the Tribunal that there had been take up of the ULLS in Band 4 under de-averaged charges and that WiMAX was not best-in-use technology. Mr Ashwini Pradhan, the Product Manager for the ULLS in the Broadband Access Solutions Team at Telstra, said that there had been take-up of the ULLS in Band 3 by [X] access seekers and in Band 4 by [X] access seeker. He noted that although this take-up was not significant, it was not immaterial. The take-up of ULLS services in operation in Band 3 at 30 June 2006 was around [X]% of Telstra's total ULLS demand as at May 2006.

142 In relation to Telstra's contention that WiMAX is not best-in-use technology, Dr Bradlow said that there were no large scale deployments of WiMAX existing as at August 2006 and that there was very little operating data available from real operating experience about its actual performance. He also observed that because lower frequencies had greater maximum transmission ranges for rural applications, there were significant coverage and cost advantages in operating High Speed Down Link Packet Access ("HSDPA") (another form of wireless technology) rather than WiMAX.

143 While Dr Bradlow's evidence demonstrated that WiMAX may not be a superior means of providing broadband telecommunications services in rural areas, he did not support the claim that the ULLS is capable of providing xDSL services to end-users located more than 5 km from an exchange.

144 Although averaging of ULLS charges opens the door for access seekers who are more efficient than Telstra in supplying broadband services and fixed voice services in rural areas to compete with Telstra's regulated retail prices, we have to take into account the extent to which averaging is likely to result in the promotion of competition in markets for listed services during the periods covered by the undertakings. Section 152AB(2)(c) requires us to have regard to the extent to which averaging is likely to promote competition in rural areas. The technical limitations on the use of the ULLS in rural areas, and the minimal take up to date identified by Mr Pradhan, suggest that it is unlikely that averaging will result in the promotion of competition in rural areas during the periods covered by the undertakings to any significant extent.

145 We say this even though the averaged charge for access to the ULLS would be less than a de-averaged charge as we have not been provided with any information or details as to the projected demand for the ULLS in rural areas. We cannot extrapolate from the material available to us the existence of a likely trend of developing competition. To date, competition in rural areas has been virtually non-existent. We note that Frontier Economics was of the view that averaged ULLS charges "will simply have no influence on the likelihood of competitive entry in these areas [bands 3 and 4]".

146 We are therefore not satisfied that averaging is likely to promote competition in markets for listed services in rural areas to any significant extent.

11.4 IS AVERAGING LIKELY TO ACHIEVE THE OBJECTIVE OF ANY-TO-ANY CONNECTIVITY IN RELATION TO CARRIAGE SERVICES THAT INVOLVE COMMUNICATION BETWEEN END-USERS?

147 No submissions were made as to whether averaged ULLS charges would be likely to result in the achievement of the objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end-users: s 152AB(2)(d). We consider that averaged ULLS charges will neither promote nor detract from the achievement of this objective.

11.5 IS AVERAGING LIKELY TO ACHIEVE THE OBJECTIVE OF ENCOURAGING THE ECONOMICALLY EFFICIENT USE OF, AND THE ECONOMICALLY EFFICIENT INVESTMENT IN, THE

INFRASTRUCTURE BY WHICH LISTED SERVICES ARE SUPPLIED AND ANY OTHER INFRASTRUCTURE BY WHICH THE SERVICES ARE, OR ARE LIKELY TO BECOME, CAPABLE OF BEING SUPPLIED?

148 We are required to have regard to the extent to which averaging is likely to achieve this objective by s 152AB(2)(e). In turn, this provision requires us to have regard to the matters specified in subs (6) and (7A) of s 152AB.

149 Telstra submitted that averaging encouraged the economically efficient use of, and efficient investment in, infrastructure and discouraged inefficient entry for the following reasons:

- de-averaged ULLS charges will, in the presence of the RPPO, create an opportunity for access seekers to enter urban areas to provide telecommunications services even if they are not as efficient as Telstra. Averaged ULLS charges will prevent this as they remove the gap between Telstra's retail prices and de-averaged ULLS charges which allow new entrants to make a margin even if their costs are higher than Telstra's. Accordingly, access seekers must compete with Telstra on their merits rather than on a margin which might result from a regulatory inconsistency between ULLS pricing policies and the Government's retail price policies; and
- de-averaged ULLS charges will undermine Telstra's ability to recover its costs of investment in the CAN because it will undermine the cross-subsidy arrangement that is necessary for it to meet its RPPO. Averaged ULLS charges will enable Telstra to recover its network costs which will ensure continuing investment in infrastructure and allow the safe and reliable operation of the ULLS.

150 Telstra accepted that averaging might lead to some inefficient bypass in urban areas but contended that this was unlikely to be as harmful to the long-term interests of end-users and economic efficiency as de-averaged ULLS charges. It was implicit in Telstra's argument that while inefficient bypass might not promote the long-term interests of end-users, there were other ways in which averaging would promote the long-term interests of end-users that outweighed any diminution inefficient bypass might cause to those interests. Telstra also

maintained that it could respond to the threat of inefficient bypass in urban areas by lowering the price for retail line rental services in bundled service offerings.

151 Telstra also argued that no compelling case had been made that inefficient bypass would be widespread under averaging. It referred to a report prepared for the Commission by CoRE Research which indicated that entrants would make build versus buy decisions that were efficient, regardless of the level of ULLS charges. It contended that Optus did not appear to be increasing the number of customers serviced by its HFC network despite ULLS access charges being above-cost in urban areas.

152 Telstra also accepted that there may be allocative efficiency losses as a result of ULLS charges in urban areas being set in excess of costs, but argued that such losses were a result of the Government policies aimed at equitable pricing of telecommunications services for all Australians, regardless of where they reside. Telstra said that any allocative efficiency losses must be weighed against the Government's stated objectives in relation to maintaining equitable pricing of telecommunications services for all Australians.

153 The Commission and Optus submitted that the difference between the costs of and charges for the ULLS in different areas that would result from averaging, would distort build/buy incentives for access seekers and lead to inefficient bypass of Telstra's CAN in urban areas and discourage efficient bypass of the CAN in rural areas.

154 Optus noted that bypass of the CAN had already occurred to some extent in urban areas. It referred to a report by Analysys into the cost of using alternative technologies (such as WiMAX and HSDPA) which showed that inefficient bypass was feasible in Bands 1 and 2. Optus submitted that there was a potential risk that a $30 averaged charge would encourage investment in less efficient technologies in urban areas.

155 Analysys found that WiMAX might provide a lower-cost alternative to wire line access solutions for voice and data services in rural areas. Optus contended that such forms of efficient bypass might be discouraged by averaging ULLS charges in rural areas because it would ensure the ULLS charges were set substantially below cost.

156 The Commission and Optus rejected Telstra's contention that de-averaged ULLS charges would provide a margin between its retail price and its costs that would enable inefficient access seekers to provide profitably retail services to end-users using the ULLS. The Commission and Optus contended that access seekers would compete amongst themselves to drive inefficient rivals out of relevant markets so that inefficient entry would be prevented.

157 Optus submitted that where bypass was feasible, incentives for economically efficient investment would be best created by:

- a cost-based ULLS charge to provide correct entry incentives for access seekers; and
- having a separate instrument to address any retail-level distortions.

158 Access charges will have implications for efficient investment in:

- the infrastructure in which access providers, such as Telstra, invest in order to provide telecommunications services (including declared services); and
- the infrastructure in which access seekers, such as Optus and the other intervenors, invest in order to provide telecommunications services.

Access pricing must be considered from the perspective of both the access provider and the access seeker.

159 In general terms, efficient investment by an access provider in the infrastructure necessary to supply telecommunications services will be achieved when the firm is just able to recover the costs of such investment (inclusive of a normal return on its investment). If the firm is unable to recover the costs of efficient investment, it will not undertake such investment. If the firm is able to recover more than the costs of its investment, it will have an incentive to expand investment beyond efficient levels. An access charge should be one that just allows an access provider to recover the costs of efficient investment in the infrastructure necessary to provide a declared service. An access provider will have a number of sources of revenue available to it to help it to recover its costs. The infrastructure necessary to provide the ULLS largely involves the infrastructure necessary to provide the CAN. The services provided by Telstra using its CAN include retail services provided directly to end-users and wholesale services provided to its competitors. So there will be sources of revenue available

to Telstra to help it to recover its costs of the CAN, other than the revenue it receives from providing the ULLS.

160 It is also necessary to consider relevant principles in relation to the efficient use of, and investment in, infrastructure by access seekers. Telstra's competitors (including potential access seekers of the ULLS) will also be required to invest in infrastructure in order to provide telecommunications services. They will have available to them the option of investing totally in their own infrastructure in order to provide services to their end-users or, by seeking access to Telstra's (or another wholesale provider's) infrastructure, investing in a more limited amount of telecommunications infrastructure. Potential access seekers are often said to face "build or buy" choices.

161 In either case access seekers will need to make investments in some infrastructure of their own. An example is the provision of high-speed data services to end-users using access to the ULLS. An access seeker would need to invest in some infrastructure which it would deploy in Telstra's exchanges, such as DSLAMs, and in other infrastructure to provide retail services, such as the need to develop a billing platform of its own to serve retail customers.

162 An access seeker will have an incentive to make efficient "build or buy" choices if access charges are set to recover the efficient costs of investing in the infrastructure necessary to provide the declared service. If access charges are set at levels below those necessary to recover efficient costs, a potential access seeker may be encouraged to acquire access to a declared service when it would be more efficient for it to build its own infrastructure and bypass access to the declared service. This may also encourage inefficient investment in other infrastructure necessary to provide telecommunications services. For example, in the case of access to the ULLS, it may lead access seekers to deploy more DSLAM equipment in more of Telstra's exchanges than it would if access charges were set to allow recovery of efficient costs. It may lead to inefficiently high levels of investment in other infrastructure by access seekers.

163 Conversely, if an access charge is set at a level in excess of that needed to recover the efficient costs of investment in infrastructure necessary to provide the declared service, the access seeker may be encouraged to invest in its own infrastructure in circumstances where it may be more efficient to seek access to an access provider's infrastructure. Alternatively,

inefficiently high access charges for a declared service may lead an access seeker to choose different wholesale products that involve it making investments other than those which it might make if access charges were set at efficient cost-recovery levels. For example, above-cost ULLS charges might lead an access seeker to purchase other wholesale products (such as Telstra's wholesale ADSL and WLR products) which involve a lower level of investment in additional infrastructure (such as DSLAMs) than would be the case if access charges were set to recover costs.

164 Overall, therefore, efficient investment by both access providers and access seekers would be expected to be encouraged in circumstances where access charges were set to ensure recovery of the efficient costs of investment (inclusive of a normal return on investment) by the access provider in the infrastructure necessary to provide the declared service.

165 If Telstra's averaging is designed to recover no more than the overall costs of its infrastructure, its operating costs and to obtain a normal return on capital, we consider that such averaging is likely to result in the achievement of the objective of encouraging the economically efficient investment in Telstra's CAN and its ULLS. However, it is a different issue whether an averaged charge of $30 per month is likely to achieve that objective. We do not know whether an averaged monthly access charge of $30 per line does no more than recover Telstra's costs of its infrastructure used to supply the ULLS, its operating costs and obtain a normal return on its capital. In order to be satisfied that this is the case, we need to be satisfied that the PIE II model estimates Telstra's efficient costs of the network used to supply the ULLS, the CAN. For the reasons set out later in this Decision, we are not able to be satisfied that this is the case.

166 We reach a different conclusion in relation to whether averaging would be likely to encourage efficient investment in infrastructure by access seekers. Efficient "build or buy" decisions will generally be made where access seekers face a charge that reflects the cost of providing the service. Averaging generates a disassociation of prices and costs in different areas. As noted earlier, the cost estimates provided by Telstra in its undertakings show that averaging will lead to a charge greater than the cost of providing the service in Bands 1 and 2, and a charge below the cost of providing the service in Bands 3 and 4.

167 This would be expected to increase the potential in Bands 1 and 2 for:

- inefficient bypass of Telstra's CAN;
- inefficiently low levels of infrastructure investment by access seekers in the infrastructure needed to be used with the ULLS (such as DSLAMs) in order to provide telecommunications services to end-users in these areas; and
- inefficiently high investment in the infrastructure necessary for Telstra to provide alternative wholesale products to access seekers.

168 While the evidence available to us indicates some degree of bypass is already occurring in urban areas, there is insufficient evidence to enable us to reach any firm conclusions as to the likelihood that bypass (efficient or otherwise) would occur, or the extent of such bypass, if averaged access charges were set for the ULLS in urban areas.

169 In Bands 3 and 4, averaged ULLS charges would be expected to increase the potential for:

- inefficiently low investment in alternative infrastructure by which telecommunications services can be provided in competition with those provided over the CAN;
- inefficiently high infrastructure investment by access seekers in the infrastructure necessary to provide telecommunications services in combination with access to the ULLS; and
- inefficiently low investment in the infrastructure needed by Telstra to provide alternative wholesale products to access seekers.

170 It follows that we consider that averaging would be unlikely to encourage efficient investment decisions by access seekers in either urban or rural areas.

171 When considering whether averaging is likely to encourage the economically efficient use of relevant infrastructure, it is relevant to consider three types of efficiency – allocative, productive and dynamic efficiency. With respect to allocative efficiency, the Tribunal has previously recognised in *Telstra Corporation Limited* [2006] ACompT 4 at [94] that:

"Allocative efficiency will be best promoted where the price of a service reflects the underlying marginal cost of providing the service."

172 We consider that averaging would be likely to discourage allocative efficiency because it will lead to a disassociation between the charges and costs of providing the service in different areas. In particular, and as noted above, averaging will lead to above-cost charges for the ULLS in urban areas, and below-cost charges for the ULLS in rural areas. In turn, this would be likely to lead to above-cost prices for retail telecommunications services provided using the ULLS in urban areas, and below-cost prices for the same services in rural areas. The resultant disassociation between prices and costs would be likely to generate:

- less than allocatively-efficient consumption of telecommunications services in Bands 1 and 2; and
- greater than allocatively-efficient consumption of telecommunications services in Bands 3 and 4.

173 There was no debate between the parties that averaging would give rise to allocatively-inefficient consumption of telecommunications services. Telstra accepted that as a result of the averaging of ULLS charges, there may be allocative efficiency losses in Bands 1 and 2, but argued that this allocative inefficiency was a consequence of the Government's objective of maintaining equitable prices for telecommunications services for all Australians.

174 While it may be true that the Government intends that there be equitable pricing of certain telecommunications services in Australia, this does not detract from the fact that averaging would be likely to discourage allocatively-efficient consumption of telecommunications services. While we are not limited, by virtue of s 152AH(2), in the matters to which we may have regard when considering whether the terms and conditions of an undertaking are reasonable (including, if relevant, the Government's objectives in relation to equitable pricing of telecommunications services), consideration of such Government policies will not have the effect of making averaging likely to encourage allocatively-efficient use of relevant telecommunications infrastructure. Rather, we consider that averaging is likely to discourage the allocatively-efficient use of relevant infrastructure.

175 In relation to whether averaging would be likely to encourage productive and dynamic efficiency, these efficiencies can be encouraged through access charges in at least two main ways. First, a term or condition of access that has the effect of promoting competition in telecommunications markets will normally have the effect of providing incentives for telecommunications service providers to pursue productive and dynamic efficiencies. By finding lower cost ways of producing services now (and in the future), service providers are able to offer lower prices to end-users for their products in order to win greater market share. As noted earlier, however, we do not consider averaging is likely to promote competition in relevant markets to any significant extent. Accordingly, it is unlikely averaging will promote productive and dynamic efficiencies in this way.

176 Secondly, access charges can create an incentive for access providers to seek productive and dynamic efficiencies if access charges are set having regard to the efficient costs of providing access to a declared service. If charges are set in this way, an access provider has an incentive to devise even more efficient ways to produce a declared service in order to lower its costs of doing so below these charges for access. Improving efficiency in this way enables access providers to receive more revenue than is necessary to recover their actual costs of providing access to the service. Averaging is not relevant to the determination of the efficient costs of providing the ULLS. The issue of averaging is rather a consideration of how best to recover the efficient costs of providing access to a service (in this case, as estimated by the PIE II model). Thus, the same incentive to seek productive and dynamic efficiencies in order to lower costs below those estimated by the PIE II model will exist irrespective of whether Telstra averages or de-averages its access charges for the ULLS.

177 It follows, therefore, that we do not consider that averaging is likely to encourage the achievement of the objectives of promoting productive and dynamic efficiencies.

178 Overall, we consider that it is unlikely that averaging would achieve the objective of encouraging the economically efficient use of relevant infrastructure. Indeed, based on the analysis contained in pars [171] to [174] above, we consider averaging is likely to discourage the allocatively-efficient use of relevant infrastructure.

11.6 CONCLUSION ON WHETHER AVERAGING PROMOTES THE LONG-TERM INTERESTS OF END-USERS

179 As noted earlier, we are required to determine whether averaging is in the long-term interests of end-users. In this section we have found that averaging:

- is not likely to achieve the objective of promoting competition in urban and rural areas during the periods covered by the undertakings;
- is not likely to achieve the objective of encouraging the economically efficient use of infrastructure;
- is not likely to achieve the objective of encouraging economically efficient investment in infrastructure by access seekers; and
- may, in principle, achieve the objective of encouraging economically efficient investment by Telstra, but we are not satisfied that the $30 charge Telstra proposes will achieve this objective.

It follows from these findings that we are not satisfied that averaging is in the long-term interests of end-users of the ULLS.

12. THE LEGITIMATE BUSINESS INTERESTS OF TELSTRA AND ITS INVESTMENT IN FACILITIES USED TO SUPPLY THE ULLS

180 We adopt the approach to the scope and content of Telstra's "legitimate business interests" taken by the Tribunal in *Telstra Corporation Limited* [2006] ACompT 4 at par [89] that:

> *"... legitimate business interests require that Telstra be allowed to recover its costs of supplying the LSS* [line sharing service] *and achieve a normal return on its invested capital. The expression "legitimate business interests" is a general expression and is somewhat open-textured. What is "legitimate" conduct or a "legitimate" interest in business may be open to a number of differing interpretations. We consider that a carrier's "legitimate business interests" is a reference to what is regarded as allowable and appropriate in commercial or business terms. In the context of s 152AH(1)(b), the expression connotes something which is allowable and appropriate when negotiating access to the carrier's infrastructure. When looked at through the prism of a charge term and condition of access and its relationship to a carrier's cost structure,* ***it is a reference to the interest of a carrier in recovering the costs of its infrastructure and its operating costs and obtaining a normal return on its capital.****"*

(Emphasis added)

181 Telstra provides its ULLS through the use of its CAN so that for the purposes of s 152AH(1)(b) we must have regard to Telstra's investment in the CAN and the consequences of averaging its monthly charge for access to the ULLS on its ability to recover its investment (inclusive of a normal return on capital) in the CAN as well as in the ULLS.

182 There are two main sources of revenue available to Telstra that enable it to recover the costs of its investment in the CAN:

- the revenue it receives from retail services provided directly to end-users using the CAN; and
- the revenue it receives from access seekers through the provision of wholesale services such as the ULLS.

The RPPO may affect the first source of revenue, while the access charges contained in the undertakings will affect the second source of revenue.

183 It follows, therefore, that in order for us to determine whether averaging would enable Telstra to recover the costs of its investment in the CAN we must have some awareness of the revenue Telstra would receive from the provision of all services it provides over its CAN, not just the revenue it may receive from providing the ULLS.

184 Telstra contended that cost-based de-averaged access charges for the ULLS would undermine its ability to meet its RPPO in a way that enabled it to recover its costs and compete in all areas of the country. In particular, Telstra argued that de-averaged access charges for the ULLS would lead to cream-skimming, with the effect of retarding its ability to recover the efficient costs of the CAN. In contrast, it considered that averaging of ULLS access charges would prevent cream-skimming from occurring, thereby enabling it to recover its efficient costs.

185 The Commission and the other parties did not consider that averaged access charges were necessary for Telstra to meet its legitimate business interests. They questioned whether the cross-subsidised pricing arrangement Telstra sought was necessary to meet its RPPO and to recover the efficient costs of its CAN. They argued that:

- the RPPO only applied to a subset of Telstra's line rental service offerings and that the number of actual lines to which the RPPO applied, was small. Accordingly, the RPPO has little impact on Telstra's ability to recover its costs of the CAN and on its ability to respond to competition in rural areas;
- Telstra received funding from the USF to compensate it for losses it made when providing telecommunications services (including retail line rental) to end-users at broadly equitable prices in different parts of the country. This funding therefore diminished the need for Telstra to extract above-cost revenues from urban end-users in order to fund the cross-subsidy it believed was necessary to meet its RPPO; and
- Telstra provided a number of services to end-users using its CAN. To the extent that Telstra made above normal profits from the provision of these services, it might not need to set above-cost prices for retail line rental services in urban areas to cover losses it may make from the provision of retail line rental services in rural areas. In other words, profits from other non-line rental CAN services might more than cover any losses Telstra made from providing retail line rental services at below-cost levels in rural areas.

186 Further, the Commission and Optus argued that even if Telstra averaged its access charges for the ULLS, it may not be able to recover its efficient costs because access seekers would bypass use of the ULLS by deploying their own alternative infrastructure in urban areas. Doing so would deprive Telstra of the revenues it believed it needed under averaging to finance below-cost pricing of line rental services in rural areas in accordance with its RPPO.

187 It is important to remember that the primary focus of our analysis in this context is not on whether averaging is necessary to enable Telstra to recover its costs of, and investment in, the CAN, but rather on whether averaging is reasonable having regard to the legitimate business interests of Telstra and its investment in the CAN. Telstra's legitimate business interests include its interest in recovering the costs of its infrastructure, in this case its CAN, its operating costs of its ULLS, and obtaining a normal return on its capital.

188 If averaging enables Telstra to recover no more than these costs and obtain no more than a normal return on its capital, then averaging may be said to be in its legitimate business

interests and, to that extent, reasonable for the purposes of s 152AH(1)(b). (Whether averaging is reasonable having regard to the matters specified in s 152AH(1)(a), (c), (d), (e) and (f) requires further analysis to which we refer elsewhere in these reasons.)

189 It is not to the point that some other method of setting a monthly charge for the ULLS is, or may be, in Telstra's legitimate business interests because it will also enable Telstra to recover the costs of its infrastructure, its operating costs and a normal return on its capital rendering averaging unnecessary. We adopt and apply the observation of the Tribunal in *Telstra Corporation Limited* [2006] ACompT 4 at [63]:

> *"... In considering whether Telstra's estimates of its costs are reasonable we are not driven to considering whether the Commission's or other parties' views or assessment of those costs are more reasonable. Nor do we enquire whether Telstra's method or approach in estimating its costs is the correct or appropriate approach. If Telstra's method or approach in estimating its costs is reasonable having regard to the statutory matters set out in ss 152AH and 152AB then the matter rests and a comparison with the $9.00 monthly charge is then to be made:* Application by GasNet Australia (Operations) Pty Ltd *(2004) ATPR 41-978 at [29]. Put shortly, our inquiry is whether the method employed by Telstra at each level of determining the costs of its LSS is reasonable having regard to the statutory matters identified in s 152AH and the objectives set out in s 152AB."*

190 It is important to bear these propositions in mind when considering the issues raised by Telstra, the Commission and the other parties in par [184] to [186] above. The issue of cream-skimming is in point. If de-averaged ULLS charges are expected to lead to cream-skimming, it may be said that averaging is in Telstra's legitimate business interests if that is the only way it may recover its costs of its infrastructure, its operating costs and obtain a normal return on its capital. However, if de-averaged ULLS charges are not expected to lead to cream-skimming, it does not follow that averaging is not in its legitimate business interests.

191 It is of course an entirely different matter whether averaging of charges for access to the ULLS is reasonable having regard to the long-term interests of end-users, or to the interests of access seekers, or to the direct costs of providing access to the ULLS.

192 It is not to the point, however, to argue that Telstra may be able to recover its efficient costs under de-averaging because of the matters outlined in par [185]. These matters bear on

the consideration of whether de-averaging will enable Telstra to recover the costs of its infrastructure, its operating costs and obtain a normal return on its capital. While they are matters we would consider if we were asked to determine whether de-averaging was in Telstra's legitimate business interests, they are not matters that determine whether averaging is in Telstra's legitimate business interests. This is discussed in more detail in sections 12.1 to 12.4 below.

12.1 WILL DE-AVERAGING LEAD TO CREAM-SKIMMING?

193 Telstra argued that under de-averaged access charges for the ULLS, access seekers would – in the presence of the RPPO – engage in cream-skimming with the effect of impeding Telstra's ability to recover the costs of its investment in the infrastructure necessary to provide the ULLS. With averaging, however, Telstra contended that the ability of access seekers to engage in cream-skimming would be removed. In turn, this would ensure Telstra would be able to recover the efficient costs of its investment in the infrastructure necessary to provide the ULLS. In effect, therefore, Telstra argued that averaging would be in its legitimate business interests because it enabled it to avoid the prospect of cream-skimming occurring.

194 As the cost of a copper line varies throughout Australia, a uniform price for retail line rental services cannot reflect the cost of providing the service in all areas of the country. Further, if a uniform retail price is to be set that just recovers the costs (inclusive of a normal return on capital) of providing retail line rental services throughout the country, then that price must be set to recover at the average cost of providing these services throughout the country. The result is that the retail price will exceed cost in low-cost (urban) areas, and be below cost in high-cost (rural) areas. The RPPO would, in the presence of differing costs of production in different areas, require some level of cross-subsidisation in retail pricing. Telstra would need to set above-cost retail prices in low-cost areas in order to generate sufficient revenues to subsidise below-cost prices in high-cost areas.

195 In the absence of competition from other service providers, such cross-subsidisation can be established. If, however, competitors are able to enter the market in low-cost areas, they will be able to take advantage of the arbitrage opportunity resulting from the difference between the low cost of providing retail line rental services and the above-cost retail prices being set in these areas by Telstra. To the extent that such competition materialises, it would

prevent Telstra from continuing to operate in low-cost areas in a way that enabled it to fund cross-subsidised pricing arrangements across the country. In particular, if competitors are able to enter low-cost areas and set prices below the averaged price being set by Telstra which is seeking to meet its RPPO (but above the cost of providing services in the area), it will be able to attract end-users away from Telstra. In turn, this will prevent Telstra from gaining above-cost revenues in these areas in order to subsidise below-cost pricing in rural areas. The greater the level of competition in low-cost areas, the more one would expect the price of retail line rental services in these areas to reduce towards the cost of providing services in these areas.

196 Competition can occur in a number of ways so as to undermine Telstra's ability to set cross-subsidised prices for retail line rental services. Another service provider can acquire access to Telstra's CAN to provide retail services to end-users. To the extent that such access was to the ULLS, at de-averaged cost-based levels, this would provide access seekers with an incentive to enter low-cost areas to provide services to end-users. Any retail price above the low-cost access charge (plus the addition of any other costs of providing a retail line rental service) but less than the above-cost averaged retail price would enable the access seeker to attract end-users to it. To the extent that access seekers were successful in attracting end-users to them, this would deprive Telstra of the above-cost revenues it would otherwise receive in low-cost areas to finance below-cost retail pricing in high-cost areas.

197 Competitors could also choose to bypass Telstra's CAN and construct networks of their own to provide services in competition with Telstra. To the extent that competitors can produce substitute services in low-cost areas at costs lower than Telstra's average cost, it would be profitable for them to bypass use of Telstra's network and operate exclusively in low-cost areas. This could be the case even if a competitor's network was more costly (or less efficient) to operate in low-cost areas than Telstra's network.

198 We accept, as a matter of principle, that it is possible that de-averaged ULLS charges could result in cream-skimming and have the effect of undermining Telstra's ability to meet its RPPO in relation to basic access services, compete in urban areas and recover the costs of its investment in its CAN. This will be a possibility if de-averaged cost-based access charges are set for the ULLS in urban areas and Telstra is required to set an above-cost price for retail line rental services in urban areas in order to meet its RPPO. This will create an incentive for

access seekers to enter these areas. While competition between a number of access seekers might reduce the extent to which any individual access seeker could make above normal profits in the process, the price for retail line rental services in urban areas will be driven towards its cost of production.

199 Telstra could respond to cost-based prices for retail line rental services in two ways. First, it could lower its own prices for retail line rental services towards cost in order to compete with access seekers. Even if it could do this in a way that meant it did not also need to reduce the price of retail line rental services in rural areas in accordance with its RPPO, this would still undermine Telstra's ability to cross-subsidise below-cost pricing of retail line rental services in rural areas with revenue gained from setting above-cost prices for retail line rental services in urban areas. If Telstra was unable to recover fully losses made in rural areas as a result of below-cost pricing of retail line rental services in accordance with the RPPO, this would clearly not be in Telstra's legitimate business interests.

200 Secondly, Telstra could choose not to compete for retail end-users in urban areas by lowering its prices towards the cost-based levels being set by access seekers. To the extent retail end-users chose to move their custom from Telstra to access seekers, this would deprive Telstra of above-cost revenues from servicing these end-users. At the same time, Telstra could seek to raise the price of retail line rental services in rural areas towards cost in order to ensure it did not make losses in these areas.

201 However, the extent to which Telstra can do this is limited by other price control arrangements that apply to line rental services in the Price Control Determination. Telstra is, in addition to the RPPO, also subject to two separate CPI-0% price caps on basic access services provided to residential and business end-users. Further, subcl 13(1A) of the Price Control Determination Amendment specifies that when calculating price movements for the CPI-0% price cap that applies to basic access services provided to residential end-users, a price movement is taken to be the sum of the movements in the average price for the service from, for the first price cap period, $31.95. In other words, average prices for basic access services provided to residential end-users cannot increase, in real terms, above $31.95 per month.

202 Thus, if Telstra chose not to service end-users in urban areas so as not to reduce its prices of retail line rental services for all residential end-users towards cost in urban areas, it would still be unable to increase prices towards cost in rural areas as a result of the separate CPI-0% price cap on residential basic access services. We assume, for the purposes of this argument, that Telstra's PIE II model accurately estimates the efficient costs of building an ULLS in rural areas at $[X] in 2005-2006 on this basis. Telstra would not be able to increase the price of retail line rental services to residential customers to recover its costs in rural areas because such a price would clearly push the average of residential basic access prices above $31.95 per service per month. This result occurs because, without Telstra servicing urban residential end-users at a lower cost-based price, there would not be the counter-balancing lower urban residential line rental charges necessary to keep the average of residential line rental charges below $31.95 per service per month in real terms if Telstra sought to increase the price of residential line rental services in rural areas towards its underlying cost of production.

203 It can therefore be seen that neither strategy would, in principle, enable Telstra to meet both its price caps and earn sufficient revenues to cover costs in a way that would be consistent with meeting its legitimate business interests.

204 The Commission submitted that Telstra's proposition that de-averaged charges would encourage cream-skimming by Telstra's competitors in urban areas was misconceived insofar as it suggested that there were above normal profits (or "cream") to be earned by Telstra's competitors in urban areas. The Commission argued that if prices in the competitive market were driven down to the level of costs, then Telstra's competitors would earn zero economic profits regardless of whether ULLS charges were averaged or de-averaged. The Commission submitted that there was no "cream" to skim under either an averaged or de-averaged pricing structure.

205 We consider that this submission of the Commission itself misconceives Telstra's cream-skimming argument. The point is not that there are above normal profits or "cream" to be earned by Telstra's competitors in urban areas, but rather that Telstra's competitors, in an environment of de-averaged charges where Telstra is subject to the RPPO, will be able to obtain access to the ULLS at a line cost well below the price of the retail line rental services which Telstra is obliged to offer to its retail customers because of the RPPO. In this way,

Telstra's competitors will be able to offer access to the ULLS to their customers at prices well below the price Telstra offers to its retail customers.

206 As the Commission pointed out, it may well be that there could be a number of access seekers competing in an urban market that would have the effect of driving prices down to the level of the costs of those access seekers. Nevertheless, in such circumstances, although those competitors may not themselves be earning above normal profits or "cream", they will still be significantly undercutting Telstra in the retail market and thereby depriving Telstra of significant revenues.

207 Optus submitted that Telstra's cream-skimming argument essentially amounted to an argument that Telstra should be reimbursed by access seekers (through above-cost ULLS charges in urban areas) for decreased margins it would derive in urban areas as a result of increased competition. We accept the proposition that "the legitimate" business interests of Telstra do not include reimbursement as a result of losses brought about by increased competition. However, we do not accept Optus' characterisation of Telstra's cream-skimming argument. That argument comes about, not because of the existence of increased competition in urban areas, but rather because of the imposition of the RPPO. The RPPO ties Telstra's hands and limits the extent to which it can lower its prices for retail line rental services in urban areas without having an impact on its overall ability to recover its efficient costs of the CAN.

208 Optus also submitted that there was no direct causal relationship between retail price competition in urban areas and reductions in retail pricing in rural areas caused by the RPPO and that the RPPO was only likely to have a minimal impact (if any) on prices for retail line rental services in rural areas. As we have noted earlier, we consider that there need not necessarily be a relationship between retail price competition in urban areas and reductions in retail pricing in rural areas caused by the RPPO. The extent of the impact which the RPPO is likely to have on prices for retail line rental services in rural areas depends upon an analysis of the types of retail line rental products offered in a bundled and unbundled form. This leads to a consideration of the HomeLine Part and BusinessLine Part products offered and we give consideration to these matters later in these reasons: section 12.2

209 We therefore accept that Telstra has made out a case that de-averaged access charges could lead to cream-skimming in the way Telstra describes, where Telstra is subjected to the RPPO. However, this conclusion, by itself, does not mean that de-averaged access charges for the ULLS are not in Telstra's legitimate business interests. This is because there may be other considerations – such as those discussed in sections 12.2, 12.3 and 12.4 below – which might mitigate against the losses Telstra might make as a result of cream-skimming under de-averaged access charges for the ULLS. Further, and perhaps more importantly for the purposes of this Decision, this finding does not answer or resolve the question whether averaging would enable Telstra to recover the efficient costs of its investment in the infrastructure necessary to provide the ULLS. It is one thing to say that de-averaged access charges may lead to cream-skimming; it is quite another to say that averaged access charges will overcome cream-skimming in a way that enables Telstra to recover its investment in the infrastructure necessary to provide the ULLS (the CAN), as well as its operating costs and ensure it obtains a normal return on its capital. This is particularly relevant to the discussion of bypass in section 12.5 below.

12.2 DOES THE RPPO ONLY CONSTRAIN THE PRICING OF TELSTRA'S HOMELINE PART AND BUSINESSLINE PART LINE RENTAL SERVICES?

210 The RPPO does not apply to all line rental services offered by Telstra at the retail level whether bundled or unbundled. Clause 19A of the Price Control Determination applies only to Telstra's HomeLine Part and BusinessLine Part line rental services (detailed in pars [65] to [68]), which the Price Control Determination envisages can be provided in either a bundled or unbundled form. An end-user who acquires either service can pre-select another service provider to provide other call services (such as domestic long distance and international calls and fixed-to-mobile calls) or connect into such Telstra services, as required, from time to time, without having entered into a contract with Telstra in advance to receive those services. Telstra also offers a line rental service to end-users as part of bundled offerings that require the end-user to pre-select Telstra to provide other call services such as domestic long distance and international calls. The RPPO does not apply to a line rental service when it is provided as part of such a bundled service offering. When we refer to "bundled service offerings" or "bundles" in this section we are referring to those bundled offerings, or bundles, that are not formally subject to the RPPO.

211 We were informed that as at July 2006, only a very small percentage [X]% of Telstra's residential line rental end-users subscribed to Telstra's HomeLine Part services. We were not informed whether any (and if so how many) of its business customers subscribed to its BusinessLine Part services. The Commission and Optus submitted that as Telstra's RPPO only applied to a very limited number of lines, it had only a minimal impact on prices for retail line rental services in rural areas.

212 Telstra argued that, nevertheless, the consequence of the RPPO was that it effectively prevented Telstra from charging different prices for the bundled line rental services in different areas because end-users made pricing decisions based on a view of relative prices. Telstra contended that if it were to raise the price of its bundled service offerings made to rural residential end-users, who were not subject to the RPPO, to levels that would ensure it recovered the cost of providing line rental services in high cost rural areas, end-users would move away from purchasing such residential bundled offerings and instead purchase the HomeLine Part service (which is priced below cost in high-cost rural areas) and acquire from an alternative carrier the other calling services they would otherwise have acquired in a bundle through pre-selection.

213 The Commission challenged Telstra's proposition that the RPPO constrained its pricing of bundled line rental services. It contended that end-users' decisions to switch carriers for pre-selected calls depended not only on the relative prices of their services but also on the perceived value and convenience of the services they offered. The Commission submitted that there was no evidence before us to indicate what, if any, degree of substitutability existed between Telstra's various line rental services. In particular, it noted that Telstra's HomeLine Part and BusinessLine Part services were inferior to the other line rental plans included in bundled service offerings as end-users were not eligible for bundling discounts and were reliant on a competitive carrier to supply pre-selected calls at a price less than Telstra's.

214 The Commission contended that data available to it as at 30 June 2005 indicated a modest increase in the take-up of Telstra's bundled offerings including those offerings with higher line rental rates. This was consistent with observations made by the Commission in the previous year. It also noted that there was a slight decrease in the number of end-users who made a pre-selection in favour of competing carriers. It submitted that this evidence

demonstrated the inaccuracy of Telstra's proposition that end-users faced with an increase in the monthly access charge for bundled services would switch to HomeLine Part.

215 The Commission also rejected the proposition that any reduction in the retail prices that Telstra set for bundled service offerings in urban areas in response to competition there would lead to any significant flow-on effect to the price that Telstra was able to charge for retail line rental services in rural areas.

216 Optus argued that Telstra was able to compete in urban areas on the basis of line rental products other than HomeLine Part and BusinessLine Part (which were the benchmarks for the purposes of the RPPO) without being required to reduce its prices for retail line rental services in rural areas under the RPPO.

217 We accept that the RPPO only applies directly to certain retail line rental services (Telstra's HomeLine Part and BusinessLine Part services) so that Telstra can offer retail line rental products to end-users as part of a bundle of telecommunications services without being subject to the formal constraints of the RPPO. Telstra can therefore compete with access seekers and other competitors on the basis of bundled retail service offerings in urban areas without being required to price its retail line rental services at any mandated RPPO amount. For example, if Telstra's competitors were to lower their prices for bundled services in urban areas, Telstra could respond by lowering the price of some of its bundled offerings without having to lower the price of its RPPO-regulated unbundled line rental service in urban areas (and, as a consequence, having to lower the price of the same service in rural areas at the same time). To that extent, the Commission is correct when it submitted that there would not be any significant flow-on effect to the price Telstra could charge for retail line rental services in rural areas if it responded to competition in urban areas through the use of its bundled service offerings.

218 But there is, in principle, a degree of substitutability between an unbundled line rental service, subject to the RPPO, and a bundled offer that includes line rental services, not so subject when they are provided in the same area. Telstra's HomeLine Part and BusinessLine Part services may be (as the Commission put it) "inferior" to other bundled line rental plans if those services do not offer bundling discounts, have the inconvenience of multiple bills and require a competitive carrier to supply other services (such as domestic long-distance calls

and international long-distance calls) at a discount to Telstra. We therefore accept that some end-users will prefer to purchase line rental services, and other telecommunications services, as part of a bundle and that they may be prepared to pay a premium to receive the bundle under a single billing arrangement. Nevertheless, there will be a limit as to how far Telstra can increase the price of its bundled offers that include the provision of a retail line rental service without driving an end-user away from the Telstra bundled service offerings to a competitive offer that marries Telstra's unbundled HomeLine Part or BusinessLine Part services with the add-on of subscribing for other services from a competitor of Telstra.

219 We do not consider that end-users would be likely to continue to acquire retail line rental services as part of a bundle if the price of the bundle was increased to a price that reflected or approximated the recovery of Telstra's cost of providing a line rental service in rural areas, while the price of an unbundled line rental service (offered in the HomeLine Part or BusinessLine Part services) remained at a level required to satisfy the Price Control Determination. In such circumstances, the economics of the situation would dictate that the end-user would acquire the unbundled line rental service at the RPPO-regulated price and would acquire from a competitor of Telstra the other services the end-user requires, such as the right to make long-distance calls.

220 This scenario may be illustrated in the following way. Assume that:

- the cost of providing a retail line rental service in rural areas is consistent with the estimates outlined in Telstra's PIE II model (that is $[X] per line in 2005-2006);
- retail line rental services can be supplied either as an unbundled product, or as part of a bundled offering that includes local and long distance calls;
- on average, the cost of providing local and long distance calls amounts to a further $40 per end-user per month; and
- the RPPO means that the price of the basic unbundled retail line rental product must be the same in rural and urban areas, and that the price cannot increase, in real terms, above $31.95 per service per month.

In such a context, a carrier equally efficient as Telstra at providing local and long distance calls could offer to supply rural end-users using a combination of Telstra's pre-selected basic line rental service and its own local and long-distance calls at a cost of $71.95 per month (that

is $31.95 + $40). If Telstra sought to recover the full cost of providing a line to end-users through a bundle of its own it would need to set a charge of at least $[X] per bundle per month in order to recover its costs of providing the services in this bundle (that is $[X] per line plus $40 for local and long distance calls). While Telstra would be free to offer this package to end-users, and would not be formally constrained by the Price Control Determination as this only applies to the unbundled basic access service, it is unlikely end-users would choose this bundled offering in preference to a combination of Telstra's unbundled line rental service and a competitor's offering of local and long distance calls.

221 We would expect that the RPPO would only constrain Telstra's pricing of bundled line rental services if the price of the bundled offer were increased substantially to a level which would create and expose a significant difference between its price in rural areas and the price of a HomeLine Part (or BusinessLine Part) service coupled with the price of the other services in the bundle (that might be acquired from a competitor of Telstra under a pre-selection arrangement). Such a substantial price difference would give rise to normal demand and supply responses so that Telstra would not be able to sustain such a price increase for its bundled service offering without losing end-users to its competitors. End-users would either be willing to change the nature of the services supplied or would be advised by Telstra's competitors to acquire the HomeLine Part (or BusinessLine Part) service together with the competitors' other services.

222 It follows that, although the RPPO formally applies only to two of the line rental services that Telstra supplies, and that presently only a small percentage of Telstra's customers may acquire those services, the RPPO is likely to constrain Telstra's pricing behaviour for other line rental service offerings. While other factors (such as the receipt of all services in a single bundle with a single bill from the one service provider) may influence an end-user's decision whether to acquire a line rental service from Telstra and other services from its competitors, it is likely that if Telstra were to increase substantially its prices for retail line rental services in its bundled offerings, some of its customers would opt to acquire a HomeLine Part (or BusinessLine Part) line rental service and to acquire other services from Telstra's competitors. In the absence of a detailed study of the cross-price elasticity of demand between different line rental service offerings, it is difficult to be sure of the extent of this substitutability.

223 However, the extent of the difference between the existing price cap on residential basic access services in rural areas ($31.95 per service per month) and the PIE II model estimate of the cost of providing a line in these areas ($[X] per service per month in 2005-2006) suggests that any increase in the price of unregulated retail line rental services (either directly or implicitly if line rental is supplied as part of a bundle) to recover costs in these areas would be expected to lead to a significant level of substitution towards the price-controlled line rental offerings.

224 We conclude, therefore, that the RPPO does, to some extent, constrain Telstra's pricing of bundled offerings that include the provision of line rental services. This would, therefore, limit the extent to which Telstra could seek to recover its costs of providing line rental services in rural areas through the use of bundled service offerings. While Telstra might be able to increase the price of its bundled service offerings by a modest amount without its customers switching towards the price-controlled HomeLine Part or BusinessLine Part products, we consider that it could not increase the price of bundled service offerings in rural areas to approximate cost-recovery levels. The point at which Telstra would no longer be able to increase the price of its bundled service offerings without its customers switching to its HomeLine Part and BusinessLine Part products is not clear. There was no material before us which enabled us to determine the price point at which such substitution might occur. However, the extent of the difference between the cost of providing line rental services in rural areas and the price-controlled level at which Telstra must set prices for its HomeLine Part and BusinessLine Part customers, leads us to conclude that it would be unlikely that Telstra would be able to increase the prices of its bundled service offerings to approximate the recovery of its costs of providing retail line rental services (and other services provided in its bundles) in rural areas without substantial (if not total) substitution towards its price-controlled products.

12.3 WOULD THE UNIVERSAL SERVICE FUND (USF) BE EXPECTED TO COMPENSATE TELSTRA FOR LOSSES IN RURAL AREAS?

225 As noted earlier, par [71], under the TCPSS Act Telstra, as a universal service provider, is required to ensure that standard telephone services ("STS") (which include line rental services), payphones and prescribed carriage services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business. This

requirement is referred to as the Universal Service Obligation (USO). Telstra is entitled to receive a subsidy to compensate it for complying with the USO.

226 Optus submitted that the appropriate mechanism for addressing, and compensating, Telstra for any losses it incurred in providing retail services at below-cost prices in rural areas, because of its RPPO, was the Universal Service Fund (USF) administered under the TCPSS Act described in par [72]. According to Optus, if the USF does not compensate Telstra fully for its net losses in rural areas, it should seek a review of the USO regime. It submitted that the TCPSS Act gave effect to objectives different from those in Pt XIC of the Act and the objectives in Pt XIC did not reflect the objectives of the TCPSS Act.

227 We accept that Pt XIC of the Act and the TCPSS Act are predicated on different objectives. The issue of Telstra's right to compensation from the USF under the USO regime has arisen in the context of Telstra's claim that averaging is a reasonable (in the Pt XIC sense) way to ensure that it recovers its costs of providing the ULLS. In this context the relevant question to ask is whether averaging, combined with the USF, ensures Telstra recovers no more than the costs of providing the ULLS and a normal return on its capital.

228 In setting out what we believe is the relevant question we make three observations. First, it is not to the point to ask whether Telstra could meet its legitimate business interests under de-averaging if the USF fully compensated it for losses it makes in rural areas as a result of the RPPO. Our inquiry is not into whether de-averaged charges are in Telstra's legitimate business interests, but rather whether averaged charges are in Telstra's legitimate business interests.

229 Secondly, averaging would not be in Telstra's legitimate business interests in the presence of a USF that fully compensated Telstra for losses it made in rural areas on account of the RPPO. This is because in these circumstances averaging – which enables Telstra to extract above-cost revenues from the provision of retail line rental services in urban areas – would result in Telstra being over-compensated for losses it incurs when providing retail line rental services at below-cost levels in rural areas. This would result in averaging not being in Telstra's legitimate business interests as it would mean it recovered more than the cost of providing the ULLS and a normal return on its capital.

230 Thirdly, we consider it is to the point for Telstra to argue that the contribution it receives from the USF does not adequately compensate it for its losses in complying with the RPPO in the provision of retail line rental services in rural areas, when considering whether averaged charges are in Telstra's legitimate business interests. If the USF does not compensate Telstra for losses it would make when supplying retail line rental services in rural areas, then it may be that it needs to average its ULLS charges in order to ensure it can recover above-cost revenues from the provision of retail line rental services in urban areas in order to recover fully the cost of providing the ULLS and a normal return on its capital.

231 In making these observations, it is important to note that any finding that the USF does not compensate Telstra fully for losses it might make in rural areas as a result of the RPPO should not be construed as a criticism of, or a finding of a short-coming in, the USF mechanism. As noted earlier (par [72] above) the USO subsidy is not linked to Telstra's costs in fulfilling its USO and the TCPSS Act does not set out any cost-based mechanism or formula, by reference to which the subsidy is to be determined. Further, the losses that are being considered in the context of this matter are hypothetical losses an access provider might incur if it built today a new and efficient network capable of providing the ULLS. However, this does not mean that actual contributions from the USF should not be considered when determining an appropriate access charge for the ULLS. It is appropriate for Telstra to argue that it would not be compensated adequately for losses it would incur in rural areas if it constructed a hypothetical efficient forward-looking network to provide the ULLS by reason of its compliance with the USO, notwithstanding what it receives from the USF, and that otherwise it wants to match its revenue to the efficient forward-looking costs of providing the ULLS in both urban and rural areas by averaging.

232 We consider that averaged ULLS charges combined with the USF would only be in Telstra's legitimate business interests if:

- the USF did not compensate Telstra fully for losses it would make when providing retail line rental services at below-cost prices in rural areas in accordance with the RPPO; and
- whatever contribution it received from the USF were to be deducted from the pool of costs Telstra sought to recover through its averaged access charges. Telstra's method for estimating charges for the ULLS in its undertakings seeks to account for

contributions received from the USF by deducting the USO adjustment from the pool of costs it needs to recover through access charges for the ULLS (see par [59] above).

233 Telstra argued that the subsidies it would receive during the periods of the undertakings from the USF would not fully compensate it for the losses an efficient operator would incur in rural areas if it were to set below-cost prices in these areas in order to meet Telstra's obligations under the Price Control Determination. The Minister has determined the following total USF contributions:

- $171,403,872 for 2005/2006;
- $157,691,562 for 2006/2007;
- $145,076,237 for 2007/2008.

Not all of the USF is to compensate Telstra for setting equitable prices for retail line rental services. The USO extends also to cover other telecommunications services, such as the provision of pay-phones. Telstra estimated that 23% of its USF subsidy should be attributed to compensating it for services provided over its copper CAN. Telstra divided these amounts by the number of CAN lines per year to estimate both annual and monthly amounts from its USF that should be considered as being attributable to compensate it for services provided over its copper CAN. The relevant figures according to Telstra are as follows.

Year	**Copper CAN share**	**Copper CAN share per service per year**	**Copper CAN share per service per month**
2005-06	$39,550,792	$3.73	$0.31
2006-07	$36,386,792	$3.44	$0.29
2007-08	$33,475,790	$3.17	$0.26

234 Telstra estimated that the amount of the USF subsidy that should be attributed to the CAN per service per month is well below the loss it estimated it would incur when setting below-cost prices for retail line rental services in rural areas. Using 2005-2006 as an example, $0.31 per service per month is well below the difference between Telstra's estimate of the cost of providing the ULLS on a per month basis in Band 4 ($[X]) and the price it is effectively constrained to charge residential customers in rural areas (around $31.95 per service per month), approximately $[X] per service per month.

235 Telstra has estimated the copper CAN USF share per service per month on the basis of spreading the USF across all CAN lines, and not just those in rural areas that are making a loss. It is possible to estimate a copper CAN share of the USF on the basis that it was only attributed to those lines in Band 4 where it is expected that Telstra would need to set below-cost ULLS charges. By dividing the copper CAN share of the USF by the copper CAN share per service per year we can determine the total number of copper lines Telstra used to determine its copper CAN share of the USF per service per year/month. Having regard to the weights used by Telstra to determine an averaged estimate of the cost of the ULLS we can estimate the number of copper lines that would exist in Band 4 ([X]% of total lines). These estimates resulted in the following figures:

Year	Copper CAN share	Copper CAN share per service per year	Total CAN lines	Number of CAN lines in Band 4
2005-06	$39,550,792	$3.73	10,603,430	[X]
2006-07	$36,386,792	$3.44	10,577,556	[X]
2007-08	$33,475,790	$3.17	10,560,186	[X]

236 Dividing the estimate of the USF that should be attributed to the CAN by the number of lines we estimate would exist in Band 4, we can generate an estimate of the amount of USF subsidy for services provided in Band 4 were the entirety of the CAN subsidy only to apply to the lines in this band. This estimate results in the following figures.

Year	Copper CAN share	Copper CAN share per Band 4 service per year	Copper CAN share per Band 4 service per month
2005-06	$39,550,792	$[X]	$[X]
2006-07	$36,386,792	$[X]	$[X]
2007-08	$33,475,790	$[X]	$[X]

This estimate is informative. Telstra's estimates of the efficient costs of providing the ULLS in the PIE II model indicate a line cost in Band 4 of $[X] in 2005-2006; $[X] in 2006-2007 and $[X] in 2007-2008. As discussed earlier, we consider that Telstra is, to some extent, constrained in its ability to raise the price of residential line rental services in rural areas substantially in excess of $31.95 per month in real terms over the period of the Price Control Determination (which does not expire until June 2009). This suggests Telstra's line cost would be substantially above its expected line rental revenues in Band 4 during the periods of

the undertakings if its estimate of line costs in the PIE II model were accurate. Indeed, one would expect this difference to be at least in the order of $[X] per line per month.

237 However, as estimated above, even if the entirety of the USF attributable to the CAN were to be distributed only to Band 4 lines, the amount of this subsidy would only range from $[X] to $[X] depending on the year of estimation. If Telstra's PIE II model estimates of line costs are accurate, and the amount of the USF it attributes to the CAN (23%) is reasonable, then the USF would not fully compensate Telstra for the losses it makes in rural areas. Further, even if the entirety of the USF (rather than merely 23%) was dedicated to compensating Telstra for losses it makes in providing line rental services at equitable prices in Band 4, this would still result in a subsidy of only $[X] to $[X] per line (depending on the year) in Band 4 (with no funds available to compensate Telstra for any losses it might also make in Band 3 or for other services Telstra provides at below-cost prices in rural areas in accordance with its USO).

238 This analysis is dependent on us being satisfied that Telstra's estimates of the efficient costs of providing the ULLS in the PIE II model are reasonable. For the purposes of this analysis we have proceeded on the basis that those estimates are reasonable. However, as discussed later in these reasons, we are unable to be satisfied that the estimates of the costs of providing the ULLS provided by Telstra using its PIE II model are reasonable. On this basis we are unable to be satisfied that the current level of USF subsidy is not sufficient to compensate Telstra for any losses it may make from providing retail line rental services in rural areas in accordance with its RPPO.

239 In summary, we consider that averaging combined with the USF would only be in Telstra's legitimate business interests if it could be shown that:

- the USF did not fully compensate Telstra for losses it makes in rural areas attributable to its RPPO; and
- a deduction was made from the pool of costs Telstra sought to recover from averaged ULLS charges for any contribution it received from the USF.

While Telstra's methodology for estimating ULLS access charges ensures a deduction is made for contributions received from the USF, it is not clear whether the USF compensates Telstra for losses made in rural areas as a consequence of meeting the RPPO. If Telstra's

modelling of the efficient costs of providing the ULLS gave rise to reasonable estimates of providing the service in rural areas (in particular in Band 4), our acceptance of its methodology for ascertaining what proportion of the USF should be attributed to subsidising Telstra for providing retail line rental services in rural areas at below-cost prices would result in a conclusion that Telstra would have provided sufficient evidence to show that the USF does not fully compensate it. However, for the reasons set out later, we are not satisfied that Telstra's estimates of the efficient costs of providing the ULLS based on the PIE II model are reasonable. Accordingly, we are unable to reach a definitive conclusion whether the USF does compensate Telstra for losses it incurs when providing retail line rental services in rural areas.

12.4 IS TELSTRA LIKELY TO BE EARNING ABOVE NORMAL PROFITS FROM THE PROVISION OF OTHER SERVICES PROVIDED OVER THE CAN THAT MIGHT COMPENSATE IT FOR LOSSES MADE WHEN PROVIDING LINE RENTAL SERVICES BELOW COST IN RURAL AREAS?

240 Telstra's submission was that its ULLS charges should be averaged in order to enable it to recover its CAN costs in a competitively neutral manner. However, Telstra's CAN is used to provide a number of services, not just its ULLS. It is used, for example, to provide retail PSTN services, wholesale line services and to provide a series of declared services such as the LCS and the PSTN OTA services.

241 The other intervenors submitted that Telstra already recovered the CAN costs relating to basic access by means of the retail line rental charge which it charged retail customers and the wholesale line rental charge which it charged to its wholesale customers. They contended that it had also recently attempted to subsidise line rental from PSTN OTA charges by means of its most recent proposed PSTN OTA undertaking which was before the Commission at the time it made its decision on the undertakings.

242 The other intervenors also submitted that Telstra enjoyed monopoly power in relation to almost all services provided over the CAN, and could recover the costs of the CAN either through regulated wholesale pricing for declared services (such as PSTN OTA, WLR, the LSS, the ULLS and the LCS (outside CBDs), or through unconstrained wholesale pricing for non-declared services (such as the LCS in the CBDs).

243 The Commission submitted that Telstra's contention that there was a substantial difference between the costs of providing the ULLS in rural areas and the revenues it received from providing retail line rental services in rural areas was misleading because, *inter alia*, Telstra did not include the revenues it received from call and internet services, or subsidies such as Broadband Connect.

244 Optus also contended that all rural revenues and government subsidies received by Telstra should be considered in calculating Telstra's actual net rural costs.

245 Telstra submitted that Optus' contention was incorrect because:

- the relevant issue was the revenues that would need to be allowed to a hypothetical supplier of the declared service. What Optus proposed amounted to a tax on Telstra's revenues, many of which were completely unrelated to the declared service;
- the effects of such a tax (which would be offset against the ULLS charges that access seekers would need to bear) would be discriminatory (as a similar wider tax would not be applied to access seekers) and distorting; and
- there would be no sense in subtracting from the costs estimated by the PIE II model the revenues Telstra earned from a wide range of services, as the cost pool estimated by the PIE II model did not include the costs associated with these services.

246 When assessing these submissions and contentions we need to consider the extent to which Telstra would be able to recover the efficient costs of its investment in the infrastructure necessary to provide the ULLS. This is the relevant question when considering Telstra's legitimate business interests and its investment in the infrastructure necessary to provide the ULLS.

247 Our inquiry is directed towards whether averaging is in the legitimate business interests of Telstra because it enables Telstra to recover the costs of supplying the ULLS and the CAN over which it is provided. It is not to the point that it may be able to recover those costs by means other than averaging.

248 We consider that the issue whether Telstra had revenue available from the supply of CAN services other than the ULLS, which could subsidise the cost of the ULLS, is not

relevant to determining whether averaging is in Telstra's legitimate business interests. While the existence of above normal profits made from the provision of other CAN services (if proven) may ensure Telstra could still recover the costs of its infrastructure, its operating costs and obtain a normal return on its capital necessary to provide the ULLS if de-averaged charges were set, this is not the focus of our inquiry in this matter. At issue is whether averaging, of itself, would enable Telstra to earn more revenues than were necessary to recover the costs of providing the ULLS and obtain a normal return on its capital (or, if it already earned above normal profits, whether averaging would increase the extent of such profits). We consider this would only be the case if averaging, of itself, led to a diminution in the level and extent of competition in relevant markets. We do not consider this is the case. Accordingly, we consider averaging could be in Telstra's legitimate business interests even if there existed above normal profits from the provision of other CAN services.

12.5 IS BYPASS OF TELSTRA'S CAN LIKELY IF IT WERE TO SET AVERAGED ULLS CHARGES?

249 Optus and the Commission submitted that even if Telstra were to set averaged ULLS charges, Telstra's ability to fund below-cost charges for rural line rental services by above-cost pricing of urban line rental services might be undermined if bypass were to occur in urban areas. In such circumstances, the capacity of averaged ULLS charges to protect Telstra's legitimate business interests, and the rationale for averaging, would disappear.

250 We accept that efficient bypass in urban areas has the potential to undermine Telstra's ability to cross-subsidise below-cost prices for retail line rental services in rural areas with above-cost prices for retail line rental services in urban areas. Potential access seekers who choose to deploy efficient alternative infrastructure in the presence of an averaged ULLS charge would, if subject to effective competition, be driven to reduce the price of retail line rental services in urban areas towards Telstra's costs of supplying urban retail line rental services. This would be likely to deprive Telstra of most (if not all) of the above-cost revenue it might otherwise have been able to extract from urban end-users in order to subsidise below-cost prices for retail line rental services in rural areas. Telstra would either lose most of its customers to competitors setting cost-based urban prices or, if it chose to respond to competitors, it would need to lower its prices towards its costs in these areas.

251 This effect can occur, at least to some extent, even if bypass is inefficient. Inefficient bypass occurs when a potential access seeker chooses to invest in infrastructure even though it would be more allocatively-efficient to use the ULLS to provide retail line rental services (or their substitutes) to end-users. While inefficient bypass would still be expected to lead to a lowering of charges for urban line rental services (and their substitutes) in urban markets, we would not expect the prices to be lowered fully towards Telstra's cost of providing retail line rental services in urban areas. The less efficient the bypass, the less the reduction in above-cost revenues Telstra would receive from providing retail line rental services in urban areas. However, any reduction in above-cost revenues would still undermine Telstra's ability to cross-subsidise the price of rural line rental services.

252 As we have noted earlier, there is evidence that alternative network infrastructure in the form of local access networks has emerged in recent years, albeit primarily in the CBD of capital cities. As the Commission has noted, most of these networks are located in discrete geographic areas. At 30 June 2004, notwithstanding the presence of multiple local access networks in CBDs and metropolitan areas, approximately 99% of connections have been to networks operated by Telstra and Optus. According to the Commission, in provincial areas, as well as in rural or remote areas as at 30 June 2004, approximately 99% of subscriber connections were to Telstra and Optus local access networks.

253 Although it is apparent that bypass can occur to some extent in urban areas, we are not able, on the material before us, to determine the extent to which bypass, whether efficient or otherwise, would occur if Telstra were to set averaged ULLS charges in the future.

254 Optus relied upon a report by Analysys which suggested that setting the ULLS charge at $30 per line per month would make inefficient bypass feasible in urban areas. However, the Analysys report depended upon the existence of a number of assumptions, particularly in relation to the market share of a new entrant, and it recognised the limitations of the extent to which alternative technologies are able to provide all the services that might be provided over Telstra's CAN. The Analysys report does not satisfy us that averaging will bring about significant bypass of the CAN.

255 In summary, we accept that bypass has the potential to undermine the ability of Telstra to raise revenue from above-cost pricing of retail line rental services in urban areas in

order to subsidise below-cost pricing of retail line rental services in rural areas in order to meet its RPPO. However, the extent to which it would undermine this ability depends on the extent to which such bypass would be efficient. While the evidence indicated that some level of bypass is already occurring in urban areas (particularly in CBD areas in Sydney, Melbourne, Brisbane, Adelaide and Perth), it is unclear what additional (if any) amount of bypass (efficient or otherwise) would occur in the future were Telstra to set an averaged ULLS charge. It is also unclear whether such bypass would allow other carriers to provide a sufficiently broad suite of retail services to match those presently capable of being provided using Telstra's CAN. Accordingly, we are not satisfied that bypass of Telstra's CAN will occur to any significant extent if Telstra were to set an averaged ULLS charge.

12.6 CONCLUSION ON THE LEGITIMATE BUSINESS INTERESTS OF TELSTRA AND ITS INVESTMENT IN FACILITIES USED TO SUPPLY THE ULLS

256 De-averaged ULLS charges, in the presence of the RPPO, have the potential to enable access seekers to apply downward pressure on Telstra's prices for retail line rental services in urban areas and undermine its ability to cross-subsidise below-cost prices for retail line rental services in rural areas by above-cost pricing of retail line rental services in urban areas. It is likely that averaged ULLS charges may prevent this occurring by limiting the ability of access seekers to apply downward pressure on prices for retail line rental services in urban areas. Accordingly, averaged ULLS charges would have the potential to enable Telstra more readily to recover its investment in facilities used to supply its ULLS and therefore be in its legitimate business interests.

257 While the RPPO applies formally only to two of Telstra's retail offerings that are consumed by a small proportion of its end-users, it is likely to constrain, to some extent, Telstra's pricing of other rural retail line rental services (including those provided in broader bundles). We would expect different line rental products provided by Telstra to be, to some extent, substitutable. While Telstra may be able to increase the revenue it receives from providing line rental products by increasing the price of retail line rental services in bundled service offerings in rural areas, it is unlikely it can do so in a way that would enable it to recover fully the line cost associated with providing those services. We refer to the significant difference between the existing controlled price for Telstra's unbundled basic line rental service and the PIE II model estimates of the efficient cost of the ULLS in Band 4. If

Telstra were to set averaged ULLS charges, we do not expect it would be able to earn more revenue by setting above-cost prices for retail line rental services in urban areas and increasing the price for retail line rental services in rural areas towards the cost that is necessary to recover the costs of its infrastructure, its operating costs and obtain a normal return on its capital necessary to provide the ULLS.

258 We also consider that an averaged ULLS charge will not enable Telstra to over-recover the costs of its infrastructure, its operating costs and obtain a normal return on its capital necessary to provide the ULLS so long as:

- the USF does not compensate Telstra fully for any losses it may incur in providing line rental services in rural areas; and
- the amount of any USF payments made to Telstra are deducted from the pool of costs it seeks to recover through averaging.

While Telstra's pricing methodology does seek to deduct an amount to reflect payments received under the USF, for reasons associated with the way in which Telstra estimates its costs of providing the ULLS, we are not satisfied that the USF would not fully compensate Telstra during the periods of the undertakings for the losses an efficient operator would make when providing retail line rental services in rural areas in accordance with the RPPO.

259 It is not relevant to consider whether Telstra makes adequate or above normal profits from the provision of other services over its CAN that would compensate it for any net losses it might incur from providing rural retail line rental services if it were to de-average its ULLS charges. We consider that averaging, of itself, would not be likely to enable or increase the ability of, Telstra to recover more than the costs of its infrastructure, its operating costs and obtain a normal return on its capital necessary to provide the ULLS, even if it did earn above normal profits from the provision of other CAN services.

260 We accept that bypass does have the potential to undermine Telstra's ability to raise above-cost revenues from the provision of urban retail line rental services if it were to set averaged ULLS charges. While the evidence available to us indicated some degree of bypass was already occurring in urban areas, there was insufficient material before us to enable us to reach any firm conclusions as to the likelihood that bypass, efficient or otherwise, or the extent of such bypass, would occur if Telstra were to set averaged ULLS charges.

261 We are satisfied that averaging of Telstra's ULLS charges would, in principle, be in its legitimate business interests and is, to that extent, reasonable for the purposes of s 152AH(1)(b). The nature of the averaged charge and its structure is designed to recover no more than Telstra's overall costs of its infrastructure, its operating costs and to obtain a normal return on its capital. However, we are unable to be satisfied on the basis of the material placed before us that an averaged ULLS charge of $30.00 per month is in Telstra's legitimate business interests. We do not know whether that charge does no more than recover Telstra's costs of its infrastructure used to supply the ULLS, its operating costs and obtain a normal return on its capital. In order to be satisfied that this is the case, we need to be satisfied that an application of the PIE II model accurately estimates Telstra's forward-looking efficient costs of the network, the CAN, used to supply the ULLS. For the reasons set out later, we are not satisfied that it does produce such an estimate of the efficient forward-looking costs of the CAN.

13. THE INTERESTS OF PERSONS WHO HAVE RIGHTS TO USE THE ULLS

262 In *Telstra Corporation Limited* [2006] ACompT 4 at [138], the Tribunal said that:

> *"The interests of persons who have a right to use the LSS* [Line Sharing Service], *access seekers, are served by an access price that enables them to compete on their merits (that is, on the basis of their own efficiency) in downstream markets."*

We consider the same principle applies in relation to the interests of access seekers to the ULLS.

263 Telstra submitted that averaging made it possible for Telstra to fund ongoing efficient investment in its CAN, thereby providing access seekers with the ongoing option to access a modern, high-quality telecommunications network in Australia. Telstra contended that averaged ULLS charges permitted access seekers to make a significant margin between the costs of supply and Telstra's retail prices, and thereby did not undermine their ability to compete with Telstra. Averaging ensured that the competition that then occurred was on the merits, rather than being distorted by regulatory arbitrage opportunities. Telstra argued that it was competition on the merits, rather than competition per se, that was in the interests of access seekers.

264 Optus submitted that the averaged ULLS charges would not be in the interests of access seekers because such a charge would increase the price of the ULLS in urban areas and have the effect of inhibiting the ability of access seekers using the ULLS to compete with Telstra to provide retail services to end-users in those areas. While averaging would lead to lower ULLS charges in rural areas, Optus argued that the position of access seekers would not be materially improved as ULLS-based competition in rural areas was unlikely to be economic, even with averaged ULLS charges.

265 Optus said that Telstra had previously advocated de-averaged ULLS charges and that investment decisions had been made by access seekers in reliance on the availability of such charges. If access charges for the ULLS were now to be averaged with a consequential increase in urban charges, this would raise the risk of stranded investments in competitive infrastructure. Optus said it would not be financially viable for it (or its competitors) to roll out ULLS-based networks to the same extent as it possibly could under cost-reflective de-averaged charging. It was implicit in Optus' submissions that Telstra's change in position was, of itself, damaging to the interests of access seekers.

266 In our consideration of the extent to which averaged ULLS charges were likely to promote competition in markets for listed services, we concluded that such charges would have the effect of increasing access seekers' costs above Telstra's cost of providing the service in urban areas. We also concluded that the increase in the ULLS charge that would result from averaging did not, of itself, mean that access seekers would be unable to compete on their merits to provide fixed-line services to end-users. While averaged access charges might not prevent access seekers from competing on their merits in urban areas, this does not mean that averaged charges that lead to an increase in the charge for the ULLS in urban areas is in their interests.

267 We accept that a change from de-averaged charges to an averaged ULLS charge has the potential to make access seekers' investments in the infrastructure needed to utilise the ULLS in urban areas unviable as a result of the significant increase in the input costs that would result from an increase in the charge for the service in those areas. Such a situation would not be in the interests of access seekers. It follows that we consider that averaging is not in the interests of persons who have rights to use the ULLS in urban areas.

268 We are also not satisfied that averaging is in the interests of persons who have rights to use the ULLS in rural areas. As we have noted earlier, having regard to the technical limitations on the use of the ULLS in rural areas and the minimal take up to date, it is unlikely that averaging will promote competition in rural areas to any significant extent during the periods covered by the undertakings. Although the averaged charge would be less than a de-averaged charge, whether averaging is in the interests of access seekers in rural areas depends on whether they can turn averaging to their advantage. On the material presently available to us, we are not satisfied that access seekers in rural areas will be able to develop competitive strategies as a result of averaging.

269 Taking all the above matters into consideration, we do not consider that averaging is in the interests of access seekers.

14. THE DIRECT COSTS OF PROVIDING ACCESS TO THE ULLS

270 Telstra submitted that when we have regard to the direct costs of providing access to the ULLS in accordance with s 152AH(1)(d), we should consider the averaged direct costs of providing access to the service. It contended that its full costs of supplying the ULLS included both the physical production cost and the increased financial deficit it faced when competitors employed the ULLS to attract profitable customers away from Telstra in urban areas. Telstra said that when it loses profitable customers to competitors it forfeits the financial contribution those customers formerly made to help cover Telstra's fixed costs of production.

271 The Commission submitted that the charging structure for access to the ULLS, whether averaged or de-averaged, was not determinative of the direct costs that were necessarily incurred in respect of the provision of access to the ULLS. We agree with that submission.

272 The effects of competition should not be considered as a direct cost of providing access to the ULLS. The Explanatory Memorandum to the Trade Practices Amendment (Telecommunications) Bill 1996 (Cth) stated that:

> *"Consistent with Part IIIA of the TPA, the references here to the 'legitimate business interests of the carrier or carriage service provider and to the 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for*

consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market".

On this construction of s 152AH(1)(d) it follows that if the RPPO were to lead Telstra to incur a loss, because of the need to provide retail price parity in rural areas, then this would be relevant to our consideration of Telstra's legitimate business interests, but not to the direct costs of providing access.

273 Telstra argued that the loss of revenue in urban areas needed to cross-subsidise below-cost pricing of retail line rental services in rural areas should not be considered to be a consequential loss that followed the introduction of competition into relevant downstream or upstream markets. It argued that in a competitive market, a supplier that was subject to a uniform price constraint on its retail prices would never set de-averaged wholesale charges when those de-averaged wholesale charges would allow cream-skimming to occur. Rather, the loss of the contribution margin would be the result of a regulatory price distortion that would never be found in a competitive market as it would make the recovery of costs, including direct costs, impossible.

274 We accept that de-averaged ULLS charges would enable access seekers to set lower prices for retail services in urban areas than they could if they faced averaged charges for the service. We also accept that this may lead to a reduction in the revenue Telstra earns from providing retail services to end-users in urban areas and may limit the ability of Telstra to cross-subsidise below-cost prices for retail line rental services in rural areas. But we do not accept that any such consequences that might flow from de-averaged ULLS charges would affect the direct cost of providing access to the service. Rather, the direct costs of providing access to the service are likely to remain unchanged irrespective of whether Telstra were to set averaged or de-averaged charges. Averaged and de-averaged ULLS charges are merely different ways of seeking to recover these costs.

15. THE OPERATIONAL AND TECHNICAL REQUIREMENTS NECESSARY FOR THE SAFE AND RELIABLE OPERATION OF THE CAN AND THE ULLS

275 Telstra argued that, as averaged ULLS charges allowed it to recover its network costs, this should ensure ongoing investment in infrastructure, and allow for the safe and reliable operation of the ULLS.

276 The Commission contended that so long as ULLS charges, whether averaged or de-averaged, were based on efficient network costs, then this would allow for the recovery of all operating, maintenance and capital costs necessary to ensure the safe and reliable operation of the ULLS.

277 A service provider will have a sufficient incentive to ensure the safe and reliable operation of carriage services, telecommunications networks or facilities so long as it receives sufficient revenue to cover the costs of ensuring safe and reliable operations. Telstra should have a sufficient incentive to ensure the safe and reliable operation of relevant carriage services, networks and facilities associated with the provision of the ULLS so long as it is able to set an access charge for the service that will enable it to recover the efficient costs (inclusive of a normal return on its investment) of its CAN.

278 Averaged ULLS charges would enable Telstra to recover the efficient costs (inclusive of a normal return on its investment) of its CAN. However, we are not satisfied that Telstra's proposed averaged charge of $30 per service per month achieves this result. We consider later in these reasons the quantum of the charge having regard to the concerns we raise in relation to the costings derived from the PIE II model.

16. THE ECONOMICALLY EFFICIENT OPERATION OF THE CAN AND THE ULLS

279 The factors that are likely to encourage the economically efficient use of, and the economically efficient investment in, the infrastructure by which listed services are supplied (s 152AB(2)(e)), capable of being supplied, or likely to become capable of being supplied, are similar to those factors which are likely to lead to the economically efficient operation of a carriage service, a telecommunications network or a facility.

280 Having regard to our analysis in relation to whether averaged ULLS charges are likely to encourage the economically efficient use of the infrastructure by which listed services are supplied, capable of being supplied, or likely to become capable of being supplied, we do not consider that averaged ULLS charges would be expected to lead to the economically efficient operation of relevant carriage services, telecommunications networks and facilities.

17. OVERALL ASSESSMENT OF REASONABLENESS OF AVERAGING

281 In order to determine whether an averaged ULLS charge of $30 per month is reasonable we are required to "have regard" to the matters set out in s 152AH and the objectives in s 152AB. As Mason J pointed out in *R v Hunt Ex parte Sean Investments Pty Ltd* (1979) 180 CLR 322 at 329, when we are directed to "have regard to" certain matters, we are required to take those matters into account "and to give weight to them as a fundamental element" in reaching our decision.

282 When we are required to have regard to a number of matters and so give weight to them as fundamental elements in reaching our decision, it will be inevitable that the weight we give to each of these elements or matters will vary.

283 We have also had regard to the objective of Pt XIC of the Act, enshrined in s 152AB(1), which is to promote the long-term interests of end-users of carriage services, or of services provided by means of carriage services.

284 With this background we summarise our findings and conclusions on the issue whether Telstra's averaged charge of $30 per service per month for access to the ULLS is reasonable.

285 We have found that averaging:

- is not likely to achieve the objective of promoting competition in urban and rural areas during the periods covered by the undertakings;
- is not likely to achieve the objective of encouraging the economically efficient use of infrastructure;
- is not likely to achieve the objective of encouraging economically efficient investment in infrastructure by access seekers; and
- may, in principle, achieve the objective of encouraging economically efficient investment by Telstra, but we are not satisfied that the $30 charge Telstra proposes will achieve this objective.

It follows from these findings that we are not satisfied that averaging is in the long-term interests of end-users of the ULLS.

286 We have found that averaging is likely to ensure Telstra's legitimate business interests are met, provided the USF does not fully recover losses made by Telstra in providing retail line rental services in rural areas. In principle, the methodology used by Telstra to average its ULLS charges (including making a deduction from its costs for contributions received from the USF) would ensure the ULLS charge does no more than recover Telstra's costs of investment in the infrastructure necessary to provide the ULLS and provide a normal return on its capital. However, given we are not satisfied that the PIE II model accurately estimates the efficient costs of providing the ULLS for the reasons discussed later, we are not satisfied that the averaged charges specified in the undertakings are in Telstra's legitimate business interests.

287 We have found that averaging:

- is not in the interests of access seekers;
- should not, of itself, lead to the recovery of more than the direct costs of providing access to the ULLS;
- enables Telstra, in principle, to meet the operational and technical requirements for the safe and reliable operation of the ULLS. However, we are not satisfied that Telstra's proposed average charge of $30 per service per month achieves this result; and
- would not be expected to lead to the economically efficient operation of relevant carriage services, telecommunications networks and facilities.

288 Having regard to the matters in s 152AH(1) and the objectives in s 152AB(2), we are not satisfied that the averaged ULLS charge of $30 per service per month:

- is in the long term interests of end-users: s 152AH(1)(a) and s 152AB(2);
- is in Telstra's legitimate business interests: s 152AH(1)(b);
- is in the interests of persons who have rights to use Telstra's ULLS: s 152AH(1)(c);
- enables Telstra to recover only its direct costs of providing access to its ULLS: s 152AH(1)(d);

- only enables Telstra to meet the operational and technical requirements necessary for the safe and reliable operation of the ULLS: s 152AH(1)(e); and
- would allow the economically efficient operation of the ULLS: s 152AH(1)(f).

289 More particularly, we are not satisfied that the averaged ULLS charge of $30 per service per month is reasonable because we are not satisfied that it meets the objectives in s 152AB(2) of:

- promoting competition for listed services (s 152AB(2)(c)); or
- encouraging the economically efficient use of, and economically efficient investment in:
  - the infrastructure by which listed services are provided (s 152AB(2)(e)(i)); and
  - any other infrastructure by which listed services are, or are likely to become, capable of being supplied (s 152AB(2)(e)(ii)).

290 Finally, an averaged ULLS charge of $30 per service per month will neither enhance nor detract from the objective of achieving any-to-any connectivity in relation to carriage services that involve communications between end-users: s 152AB(2)(d).

291 Overall, having regard to the findings we have made, and the conclusions we have reached in relation to the matters set out in s 152AH(1) and the objectives in s 152AB, we are not satisfied that Telstra's proposed averaged ULLS charges of $30.00 per service per month are reasonable.

18. NETWORK MODERNISATION PROVISIONS

292 Telstra contended that the Network Modernisation Provisions (par [28] above) adequately balanced its interests and the interests of end-users and access seekers. It submitted that network modernisation, including the ongoing maintenance and upgrade, of its network was necessary to enable it to meet the demands of retail and wholesale end-users of the PSTN. Accordingly, it said, network modernisation was in the long-term interests of end-users, in its legitimate business interests and in the interests of access seekers.

293 Telstra argued that the 15 week notice period was a minimum period and balanced the needs of access seekers for certainty of term and supply, its interest in modernising its

network and the interests of end-users in obtaining improved service. It contended that a minimum period of 15 weeks was sufficient for access seekers to make alternative arrangements and that it had legal obligations under the Act (Pts IV, V and XIB) and obligations of equivalence under its operational separation requirements to ensure that it provided equivalent notice of network upgrades to access seekers as it did to itself.

294 It submitted that the exemption of emergency network upgrades from being subject to the minimum notice period reflected standard industry practice. It contended that any increase in the minimum notice period in excess of 15 weeks would have an unreasonably detrimental impact on its legitimate business interests and on the long-term interests of end-users, although we note that there was no evidence, other than assertion, to support this submission.

295 Telstra relied upon the evidence of Mr David Piltz, the General Manager in Telstra's Fundamental Planning Access, Network & Technology Group. His evidence was that delays due to notice periods in excess of the time within which Telstra could plan and implement a network upgrade would constrain Telstra's ability to meet the demands of end-users of telecommunications services. He said that in a number of cases, non-emergency maintenance or upgrades to Telstra's network could be planned and implemented within four weeks. According to Mr Piltz, the effect of any delay on a network upgrade project would need to be evaluated in planning for network upgrades and might result in some projects no longer being commercially viable. This evidence provided little support for the proposition that Telstra would be harmed by a lengthier notice period or good faith requirements.

296 Optus and the other intervenors accepted, in principle, the need for Telstra to modernise its network and to maintain it properly and to stipulate network modernisation provisions, but they challenged the particular provisions set out in the undertakings on the basis that they allowed for activities which had an anti-competitive effect or consequence. The scope of the provisions allowed Telstra physically to alter the ULLS in a manner which impacted dramatically on the ability of access seekers to maintain their use of the ULLS. In particular cl 6.3 and cl 6.4 of the undertakings (par [28] above) enabled Telstra to decommission the copper pairs on which access seekers' networks depended, with only 15 weeks notice to access seekers.

297 Looming large in the debate on the Network Modernisation Provisions was the existence of Telstra's mooted (but not committed) proposal for a roll out of a major upgrade to the network involving fibre-to-the-node technology ("FTTN"). Optus and the other intervenors were concerned that the Network Modernisation Provisions authorised Telstra to conduct major upgrades such as a FTTN roll out without appropriate regulatory oversight by the Commission under the arbitration provisions of Pt XIC of the Act. It should be noted that Telstra has made it clear that without certain necessary changes being made to the regulatory framework, it will not be proceeding with any roll out of a FTTN network. It should also be noted that Telstra has made it clear, as outlined later in these reasons, that if it were to roll out a FTTN network, it would not enforce the undertakings' Network Modernisation Provisions.

298 Optus contended that under the Network Modernisation Provisions, Telstra would be entitled to deploy an FTTN configuration at all the major exchanges served by Optus DSLAMs utilising the ULLS throughout Australia. The result would be that Optus would have no comparable access alternative to enable it to continue to serve the end-users with whom it had established a connection through the installation of DSLAM equipment which connected into the ULLS lines at Telstra exchange buildings. If FTTN were deployed and the copper pairs into exchange buildings were decommissioned, it would no longer be possible for an access seeker to access the ULLS at a Telstra exchange building and it would either be not technically feasible or, at the least, not economic, for an access seeker to access the ULLS at the node. This would occur because the business of the access seekers would be based substantially on their considerable investment in their network which connected into the ULLS through the installation of DSLAMs in Telstra exchange buildings.

299 The Commission accepted that network modernisation was in the long-term interests of end-users, Telstra's legitimate business interests and the interests of access seekers, and that it was necessary for the undertakings to provide for network modernisation. However, it did not accept that the Network Modernisation Provisions in the undertakings were reasonable. The Commission contended that the minimum period of 15 weeks notice to access seekers constrained the ability of access seekers to plan infrastructure purchases, technical staff allocations and end-user marketing of new services. It argued that the entitlement of access seekers (if any) to institute proceedings under Pts IV, V and XIB of the Act was not an adequate alternative to reasonable notice of network upgrades. It contended further that the information equivalence strategies under Telstra's Operational Separation

Plan ("OSP") were yet to be fully implemented and did not provide a sufficient guarantee of equivalent notice.

300 The Commission contended that the Network Modernisation Provisions went beyond what was necessary to protect Telstra's legitimate business interests in being able to modernise its network, and that there was no evidence that it would be harmed by a lengthier notice period or good faith requirements. It was likely that most upgrades would be planned in excess of 15 weeks ahead of implementation. It contended further that the Network Modernisation Provisions did not promote the long-term interests of end-users as competition would be damaged if access seekers did not receive adequate notice of modernisation activities and Telstra were able to modernise in a way that targeted access seekers. It contended that the undertakings, therefore, discouraged access seeker investment in infrastructure.

301 Optus supported the Commission's criticisms of the Network Modernisation Provisions. In particular, it contended that the 15 week notice period was not sufficient for access seekers to make alternative arrangements, particularly given that network modernisation could include the ULLS no longer being supplied at all.

302 The difficulty with the Network Modernisation Provisions is that they cover the spectrum of network modernisation activities from the minor to the major. The complaint was that, in effect, "one size fits all". The range of activities encompassed by the definition of Network Upgrades in cl 6.1 of Attachment A to the undertakings (par [28] above) is very broad. It ranges from immediate or urgent maintenance and repair of the ULLS to the rearrangement, removal and replacement and the decommissioning of the copper pairs used by Telstra for the supply of ULLS to access seekers. The replacement of the copper pairs by fibre optic cable is included in these activities. It follows from the breadth of the activities contemplated by the definition of the Network Upgrades that they may impact upon the supply of ULLS to access seekers.

303 The Commission, Optus and the other intervenors challenged the terms upon which Telstra is able to undertake the network upgrades contained in the undertakings. In this context, the Network Modernisation Provisions provide that:

- an access seeker agrees that Telstra has a right to maintain and upgrade its network and acknowledges that such a maintenance and upgrade may result in the ULLS being truncated and no longer able to be supplied;
- an access seeker acknowledges that in some cases access seeker points of interconnection may have to be moved;
- Telstra will provide at least 15 weeks notice of any network upgrade that will affect the supply of the ULLS other than in respect of emergency network upgrades for which no minimum notice period is specified.

It is also important to note that cl 6.4 provides that Telstra has the right to terminate the ULLS if the access seeker does not take any action that is required of it by Telstra in the light of a relevant network upgrade.

304 The concern we have about the Network Modernisation Provisions is that the definition of "Network Upgrades" covers such a wide range of activities that the minimum period of notification of 15 weeks is not necessarily appropriate or reasonable in respect of the range of the activities encompassed in the definition. Some of the network upgrades, such as removal or replacement of the ULLS with fibre optic cable, or its decommissioning, would require access seekers to plan major infrastructure works, or acquire and install new equipment and, in the case of the decommissioning of the ULLS, the need to market new services to end-users. These activities may well take longer to plan, implement and install than the minimum notice period of 15 weeks proposed by Telstra. That notice period is also likely to place access seekers at a significant competitive disadvantage with Telstra because some of Telstra's network upgrades will require more than 15 weeks to plan and carry out.

305 Telstra admitted in its response to the Commission's draft decision on the undertakings that the level of planning for network modernisation would range from several weeks to many months. Telstra said that while some of its network modernisation activities would be delayed to meet the minimum 15 weeks notice, it expected that the majority of other network modernisation activities would be notified well in excess of 15 weeks.

306 If Telstra provided access seekers with only the minimum 15 weeks notice, they might not have sufficient time, or as much time as Telstra has in respect of its own customers, to respond to the network upgrades. Clause 6.4 of the Network Modernisation Provisions is

relevant in this context because it provides that should an access seeker fail to take the action specified in a network upgrade notice, it must comply with any notice by Telstra to hand back a customer.

307 Telstra has asserted that it intends to provide notice to access seekers as soon as it has plans to proceed with a network upgrade proposal. But this assertion is not reflected or recorded in a commitment or provision in the undertakings. Nevertheless, the assertion must be considered in the light of Telstra's obligations under its Information Equivalence Strategy.

308 The Commission submitted that Telstra had a strong incentive not to give access seekers an equivalent period of notice of upgrades as Telstra might have itself. Telstra's response was that it was not able to give access seekers a lesser period of notice of upgrades than it gave to itself because it was subject to equivalence obligations under its OSP. It was required under the provisions of the *Telecommunications Act* 1997 (Cth) to prepare an OSP and have it approved by the Minister.

309 Under s 61(1) of the *Telecommunications Act* 1997, Telstra's licence is subject to the conditions specified in Sch 1. Clause 48 of Pt 8 of Sch 1 provides that the aim of Pt 8 is:

> *"…to promote the principles of transparency and equivalence in relation to the supply by Telstra of wholesale eligible services."*

One of the objects of Pt 8 is to promote:

> *"…a principle of equivalence in relation to the supply by Telstra of designated services to:*
>
> *(i) Telstra's wholesale customers; and*
>
> *(ii) Telstra's retail business units;*
> *…"*

Clause 51 of Sch 1 requires Telstra to prepare a draft OSP which must be directed towards the achievement of the aims and objects of Pt 8 and which must (pursuant to cl 52) be given to the Minister. Under cl 54 the Minister must approve the draft OSP or refuse to approve it.

310 If the Minister approves a draft OSP it becomes a final OSP which comes into force when Telstra is notified of the approval. Importantly, a final OSP is not a legislative instrument for the purposes of the *Legislative Instruments Act* 2003 (Cth): cl 55(2), and compliance with it is not a condition of Telstra's carrier licence: cl 55(3). However, if

Telstra contravenes its OSP, the Minister may require Telstra to prepare a rectification plan. Once the rectification plan has been approved by the Minister, compliance with that plan, "a final rectification plan", is a condition of Telstra's licence: cl 65 of Pt 8. Failure to comply with a final rectification plan may attract a pecuniary penalty of $10 million for each contravention: see ss 68 and 570 of the *Telecommunications Act* 1997 (Cth).

311 Telstra prepared a draft OSP which was approved and announced by the Minister on 23 June 2006. Under cl 4 of the OSP Telstra was required to prepare, *inter alia*, an Information Equivalence Strategy ("IES") with which it would comply after 31 October 2006.

312 The IES was released and published on 23 June 2006. It contained detailed provisions relating to network upgrade notification. It has therefore been implemented. The IES contained the following provisions:

> *"**Network Upgrade Notifications***
>
> Core Principles
>
> *5.4 The Network Upgrade Notifications will be applied in accordance with the following core principles:*
>
> *(a) from time to time, Telstra may identify ways in which it can improve its access network in terms of efficiency, capacity and coverage;*
>
> *(b) Telstra has the right to maintain and upgrade its access network, including the right to remedy capacity runout in both narrowband and broadband services and to provide faster broadband services to customers; and*
>
> *(c) the maintenance and upgrade of Telstra's access network includes remediation, reconfiguration, enablement, augmentation, maintenance and repair of the access network (including the removal, rearrangement, replacement (for example with fibre optic cable) or decommissioning of the continuous metallic pair used for the supply of Eligible Services to wholesale customers) ('**Network Upgrade'**).*
>
> Scope of Network Upgrade Notifications
>
> *5.5 Telstra will notify affected wholesale customers in accordance with clauses 5.6 to 5.8 below of any Network Upgrade that involves remediation, reconfiguration, enablement, augmentation, maintenance and repair, including:*

*(a) the installation of a full power Digital Subscriber Line Access Multiplexer ('**DSLAM**s') at a remote point in Telstra's access network; or*

(b) the removal, rearrangement, replacement (for example with fibre optic cable) or decommissioning of the continuous metallic pair in Telstra's access network that is or could be, used for the supply of the ULL service or SS service to wholesale customers,

where the Network Upgrade:

(c) will require the wholesale customer (if the wholesale customer wishes to maintain the service):

(i) to establish a new PoI or relocate a PoI used or to be used by the wholesale customer for those services from one point to another;

(ii) to alter the Deployment Class of Authorised Equipment used by the wholesale customer on the relevant ULL service or SS service; or

(iii) to install Authorised Equipment used by the wholesale customer on the relevant ULL service or SS service closer to the end user than exchange buildings; or

(d) will, if the wholesale customer wishes to maintain the service, result in the quality of the service (or any services supplied by the wholesale customer to its end users using the service) being adversely affected; or

(e) will result in the ULL service or SS service no longer being supplied (for example because the continuous metallic pair used for the supply of the service to the wholesale customer has been removed or decommissioned and replaced with fibre optic cable).

How Telstra will inform customers of Network Upgrades

5.6 Where the Network Upgrade will affect existing or ordered ULL services or SS services, then Telstra will provide any affected wholesale customers, with an individual Network Upgrade Notification in writing in accordance with the terms governing the supply of ULL services or SS services. Other than for Emergency Network Upgrades (as discussed below), Telstra will provide the relevant wholesale customer with an individual Network Upgrade Notification no less than 15 weeks prior to the implementation of the Network Upgrade.

5.7 Telstra will also provide notice more generally to wholesale customers acquiring ULL services or SS services of any Network Upgrades that affect one or more ULL services or SS services in the manner set out in clause 5.5. This general notification will be in accordance with the terms governing the supply of ULL services or SS services (as the case

may be) and may be by way of a website that would be available to all wholesale customers acquiring ULL services or SS services and updated on a regular basis.

Emergency Network Upgrades

5.8 Telstra will use its best endeavours to provide affected wholesale customers with notice of an Emergency Network Upgrade prior to the Emergency Network Upgrade being implemented. Where it is not practicable for prior notice of an Emergency Network Upgrade to be given, Telstra will provide any wholesale customer whose ULL services or SS services are affected by the Emergency Network Upgrade with notification as soon as practicable after the Emergency Network Upgrade has been implemented."

It should be noted that the provisions of cl 5.4(c) provide a definition of the scope of "Network Upgrade" which is in identical terms to the scope of the definition of "Network Upgrades" in cl 6.1(c) of Attachment A to the undertakings.

313 In substance the IES goes no further than the provisions of the undertakings so far as the rights of access seekers are concerned. The IES contains a "Disclaimer" on its first page in the following terms:

"This Information Equivalence Strategy is being published in furtherance of Telstra's obligations under the Telecommunications Act 1997. The purpose of this Information Equivalence Strategy is solely to assist in Telstra's compliance with and monitoring of Telstra's performance of the Operational Separation Plan.

The publication of this Information Equivalence Strategy is not intended to confer any rights on any person. In particular, nothing in this Information Equivalence Strategy is to be taken as a representation that Telstra will act or refrain from acting in any particular way."

314 Clause 4.8 of the OSP provided:

"By complying with the Information Equivalence Strategy, Telstra will demonstrate that the provision of information provided by the Key Network Services Business Unit or the Wholesale Business Unit to wholesale customers about relevant changes to Telstra's network is, to the extent possible, equivalent to the provision of the same or similar information to the Retail Business Unit."

315 Clause 5.15 of the OSP provided relevantly:

> *"The Strategies will assist in the achievement of equivalence in the operational quality of Designated Services supplied to wholesale customers and the Retail Business Unit by describing, among other things, the measures Telstra will implement:*
>
> *(a) to ensure that the standard of delivery of Designated Services supplied to wholesale customers is equivalent to the standard of delivery of Designated Services provided to the Retail Business Unit, through a commitment to the implementation of processes to promote the principle of equivalence of supply by the Key Network Services Business Unit of Fault Detection, Handling and Rectification, and Service Activation and Provisioning;*
>
> *(b) to demonstrate that information provided by the Key Network Services or Wholesale Business Units to wholesale customers about relevant changes to Telstra's network is, to the extent possible, equivalent to that provided to the Retail Business Unit, such as by developing and implementing a network change notification process as described in clause 4.6;*
>
> *(c) to protect confidential information relating to Telstra's wholesale customers, such as by the implementation of policies, procedures and systems to ensure that confidential information of wholesale customers is not disclosed to the Retail Business Unit; and*
>
> *(d) to establish an alternative dispute resolution process for resolving disputes with Telstra's wholesale customers."*

316 Telstra rejected the Commission's submission that the OSP did not provide a sufficient guarantee of equivalent notice, and that the protection of access seekers under Pts IV, V and XIB of the Act was not an adequate alternative to reasonable notice, on the basis that Telstra was liable to considerable financial penalties and directions from the Commission and the Minister for breaches of the Act. However, in our view, the taking of proceedings for enforcement of the Act or other remedial action is no substitute for the provision of adequate and reasonable notice of network upgrades in the undertakings. The purpose of an undertaking is to specify enforceable rights and obligations between access providers and access seekers. (An undertaking does not necessarily cover all the rights and obligations of the parties). The disclaimer in the IES is specific in its terms that it confers no rights on access seekers, nor does it indicate or undertake that Telstra will act or refrain from acting in any particular way. We do not consider that a strategy for the monitoring of Telstra's performance of its OSP, or its observance of the IES, is an adequate or reasonable

substitute for a provision in the undertakings which is binding upon, and enforceable between, the access seekers and Telstra.

317 Telstra's IES does not, in our view, provide sufficient guarantee of equivalent notice and, in any event, that guarantee is not incorporated into the undertakings. Enforcement of those strategies under statutory provisions is not as effective or immediate as the ability to enforce a commitment under an undertaking.

318 We accept that access seekers do not have an unlimited right of access to Telstra's ULLS, or the right to prevent network modernisation, but they ought not to be placed in a position where their substantial investments in infrastructure might be isolated and made redundant as a result of Telstra's timing and location of network upgrades.

319 Such a situation is not in the long-term interests of end-users of the services provided to them by access seekers using the ULLS. Nor is it in the interests of access seekers themselves. A consequence of an inadequate period of notice of network upgrades is that it will provide a disincentive to access seekers from engaging in facilities-based competition with Telstra. Such a situation would not be in the long-term interests of end-users.

320 There are two aspects to the objection to the Network Modernisation Provisions. One relates to the absence of a commitment by Telstra in the undertakings to give an equivalent period of notice of a proposed network upgrade to an access seeker as it gives to its retail business units. The other aspect is the period of notice which will apply to major network upgrades which will involve the removal, rearrangement, replacement or decommissioning of the continuous metallic pair used for the supply of the ULLS to access seekers. Such upgrades will result in a substantial interference with, and interruption of, the service supplied by access seekers to end-users. It is not possible to anticipate all the particular circumstances which will confront an access seeker when notified of such a major network upgrade by Telstra. Nevertheless it is apparent that some major network upgrades would involve Optus and other access seekers having to adopt courses of conduct that would mean the cessation of their current network configuration and that they would have to rely on unregulated services provided by Telstra or other access providers. Telstra posited a number of alternatives which might be open to Optus and other access seekers to maintain continuity

of their service, but the terms of such alternatives, their technical and financial feasibility, and their cost, were not provided to us.

321 What is missing from the undertakings, and what is required having regard to the breadth of the activities covered by the definition of "Network Upgrades" in the undertakings, is a provision which either tailors particular periods of notice to particular types of network upgrades or the provision of an arbitration or dispute resolution procedure if an access seeker wants to contend that the period of notice of a particular network upgrade by Telstra is unreasonable and inadequate, having regard to the nature of the particular network upgrade.

322 The inadequacy and unreasonableness of the blanket 15 weeks period of notice applicable to all types of activities covered by the definition of "Network Upgrades" was recognised and acknowledged in Telstra's response to the Commission's draft decision on the undertakings which it submitted on 7 August 2006. Paragraph 258 of that response stated:

> *"Telstra has made it very clear that without certain necessary changes being made to the regulatory framework, Telstra will not be proceeding with any roll-out of a FTTN network. Telstra informed the Australian Stock Exchange on 4 August 2006 that no FTTN investment would proceed under the current regulatory framework. Telstra acknowledges that should it at some time in the future undertake any large-scale FTTN network rollout, this would require a separate regime to provide access seekers with sufficient notice of the impact of such a rollout. Telstra would expect that this would be dealt with in any special access undertaking for FTTN services. In the event of such a large-scale FTTN rollout, Telstra will not seek to rely solely on the network modernisation provisions set out in the Undertakings."*

This acknowledgement highlights the issue raised by the Network Modernisation Provisions. The definition of "Network Upgrades" in cl 6.1 of Attachment A to the Undertakings includes an FTTN network rollout. However, the separate regime for such a roll out contemplated by Telstra is not included in the Network Modernisation Provisions and it would be open to Telstra by virtue of the undertakings to give access seekers only 15 weeks notice of a proposed FTTN network rollout which would, no doubt, involve substantial interference and interruption to the use of the ULLS. One may accept Telstra's present intention in relation to the notice regime it proposes in the event of a large scale FTTN network roll out, but circumstances change and Telstra is not bound by the acknowledgment set out above. In the absence of any similar acknowledgement in the undertakings, it would

be open to Telstra in the future, due to changed circumstances or otherwise, simply to give 15 weeks notice of such a large scale FTTN network rollout. Telstra's IES provides no enforceable protection for access seekers in such an event. As the Disclaimer states, (par [313]), it confers no rights on access seekers and it is not a representation that Telstra will act or refrain from acting in any particular way.

323 The inadequacy and unreasonableness of the Network Modernisation Provisions was further acknowledged by Telstra in the course of its submissions. We accept that the definition of "Network Upgrades" covered activities which would not involve ULLS ceasing to be available, but when it was pointed out to counsel for Telstra that cl 6.1(c) of Attachment A to the Undertakings included the decommissioning of the continuous metallic pair, counsel responded:

> *"Telstra has made clear that in the event that the FTTN roll-out programme were to be resurrected, it being in abeyance at the moment, but were it to be resurrected, Telstra would not apply these Network Modernisation Provisions in the context of such an extensive roll out. Telstra has acknowledged that such an extensive nationwide modernisation programme would require a discrete regime".*

324 If that be the situation, it is unreasonable, and not in the long-term interests of end-users or in the interests of access seekers, for the notice provision in the undertakings to apply in its terms to an FTTN roll out programme. If Telstra is proposing that such a roll out be provided with a separate and discrete regime for notification and implementation, then the FTTN roll out programme should be excised from the definition of "Network Upgrades". The short point is that the language of cl 6.1(c) of Attachment A is sufficiently wide to contemplate a national FTTN roll out. If Telstra proposes that that provision not apply in the event of a national FTTN roll out and that a separate undertaking be given to deal with that discrete subject, then the provisions in cl 6.1(c) should be so limited.

325 Telstra challenged the proposition that if access seekers had insufficient time to respond to a notice of a network upgrade they would be required to hand back customers to Telstra. It contended that upon notification of a network upgrade an access seeker was free to acquire ULLS from the remote node. However, Telstra added a rider, "where technically feasible" to this proposition. We were not informed as to the manner in which such an acquisition might be technically feasible. Telstra put an alternative, which was for an access

seeker to acquire alternative wholesale services from Telstra in order to service its end-users. However, we were not informed of the cost of such acquisition. These alternatives do not answer the concern of Optus and the other intervenors as to the consequences of a network upgrade on the substantial investment in infrastructure that they have already made to connect their networks to the ULLS by way of the use of DSLAMs in Telstra exchange buildings.

326 The Commission, Optus and the other intervenors raised concerns that under the network upgrade provisions, Telstra would be able, and likely, to target network upgrades to areas where access seekers had deployed ULLS-based infrastructure to compete with Telstra. These submissions remain in the realm of speculation and there was no material before us from which we consider we would be entitled to draw a conclusion as to the probability of such conduct on the part of Telstra. We note, in passing, Telstra's proposition that it is prohibited from targeting network upgrades to areas where access seekers have made investments in ULLS-based infrastructure because of its obligations under the Act, including Pts IV, V and XIB. However, if evidence existed which supported the proposition that there was a probability that Telstra would target network upgrades in the manner alleged, we still do not consider that such obligations are a substitute for a specific provision in the undertakings preventing such targeting.

327 The vice of the Network Modernisation Provisions in the undertakings is not so much the period of notice itself, but rather the breadth of the nature and scope of the network upgrades to which the period of notice is applicable. We accept that in a number of cases non-emergency maintenance or upgrades to Telstra's network might be planned and implemented within four weeks. However, the problem is that this period of notice also covers network upgrades of a far greater extent, including the decommissioning of the continuous metallic pair used for the supply of the ULLS. The unreasonableness of the Network Modernisation Provisions in the undertakings is related to the indiscriminate provision of a minimum of 15 weeks notice to a wide range of network upgrades, some of which provide reasonable provisions for access seekers and some of which clearly do not.

328 We are not satisfied, having regard to the matters set out in s 152AH and the objectives in s 152AB, that the Network Modernisation Provisions are reasonable.

19. TELSTRA'S NETWORK COSTS – THE PIE II MODEL

329 Telstra submitted that the monthly charge for access to its ULLS should be such as to enable it to recover the efficient costs of the ULLS fully and in a competitively neutral manner. It contended that the costs of the ULLS comprise the ULLS network costs and the ULLS specific costs (from which are deducted a portion of Telstra's receipts from the USF). Paragraph [59] above sets out the cost estimates Telstra has made in support of its contention that the charge contained in its undertakings is reasonable. As can be seen from par [59], Telstra's network cost estimates comprise the greater proportion of its estimates of the costs of supplying the ULLS.

330 The network costs of supplying the ULLS primarily relate to the costs of installing, maintaining and operating the copper wire (and ancillary equipment) in the CAN as well as other associated indirect costs. Telstra estimated its network costs by using the PIE II model which it contended provides reasonable estimates of the efficient network costs of the ULLS having regard to the fact that the ULLS is a copper-based service.

331 The PIE II model is described by Telstra as a total element long-run incremental cost ("TELRIC") model. The model determines, on the basis of various inputs, the network elements which would be necessary to construct a customer access network (CAN), the costs of those elements, the annual amounts necessary to recover those capital costs, the operational and maintenance ("O&M") and indirect costs applicable to the CAN, and the proportion of the CAN costs that relate to the ULLS.

332 The PIE II model is an engineering-econometric model which operates using Microsoft Access software. The model is made up of several individual modules. The modules contained within the model estimate network costs in two discrete steps:

(a) a series of modules within the model first dimension the CAN and the inter-exchange network ("IEN") in order to determine the dimensions of a network that would be needed to provide a number of PSTN services, including the ULLS. This step is performed by the "Demand Module", the "Switching and Signalling Module", the "CAN Module", the "IEN Module" and the "Trench Sharing Module". These modules may be described collectively as the "Dimensioning Modules"; and

(b) once the network needed to provide the ULLS and other PSTN services is dimensioned, the second step undertaken by the PIE II model involves costing the network that has been dimensioned. This step is performed in the "Costing and Reporting Module".

When the model is used to estimate the ULLS network cost figures, it first dimensions the network for the relevant year and then costs the network it has dimensioned.

333 The PIE II model estimates both a low and high value for each of the three periods covered by the undertakings. Telstra referred to these estimates as the "lower bound" and "higher bound" network cost estimates. The difference between the low value and the high value relates to the use of two different WACC estimates. Using the lower WACC estimate, the PIE II model calculates the following averaged network cost for each of the three periods covered by the undertakings:

	1/7/05-30/6/06	**1/7/06-30/6/07**	**1/7/07-30/6/08**
Averaged cost	$24.95	$27.47	$28.62

Using the higher WACC estimate, the PIE II model calculates the following averaged network cost for each of the three periods covered by the undertakings:

	1/7/05-30/6/06	**1/7/06-30/6/07**	**1/7/07-30/6/08**
Averaged cost	$30.72	$34.04	$35.88

334 Telstra contended that the network costs estimated by the PIE II model should be increased to take account of:

- the cost of lead-ins. A lead-in is the installation of a communications cable between the CAN and an end-user's premises. Telstra contended that the cost of lead-ins is not included in the network costs estimated by the PIE II model. Telstra submitted that an appropriate estimate of the cost of lead-ins amounted to $[X] per service in operation ("SIO") per month;
- trench uplifts. Telstra contended that the PIE II model underestimates the cost of trenches because it does not take into account that if there are driveways in the way of trenches, trenches would need to be constructed by underground boring rather than by digging. Further, the PIE II model does not provide for the costs of cables having to

be laid under concrete pathways rather than in nature strips. Telstra also contended that in the case where cables can be laid in areas which do not have existing infrastructure (such as paths or driveways), the PIE II model does not include the costs for backfilling trenches with soil and re-instating the surface with turf for main cable and IEN trenches. Failure to account for these factors meant the PIE II model would underestimate the costs of constructing the CAN, and therefore the costs of providing the ULLS. Telstra estimated that the monthly cost of the ULLS would increase by $[X], $[X], $[X] and $[X] per line in Bands 1 through 4 respectively if these additional considerations were taken into account;

- a gradient multiplier. The PIE II model assumes that Australia is flat and does not take into account the existence of gradients in the landscape. As the gradient of the ground will have an impact on the actual installed length of cables and trenches, Telstra submitted that the PIE II model would underestimate the appropriate length of cable and trench distances for the CAN. It submitted a gradient multiplier of 1% should be applied to cable and trench distances to account for this understatement of costs;

- an obstacle uplift. The PIE II model assumes that all trenches between network points can be constructed in straight lines. Trenches are not always laid in straight lines due to obstacles such as lakes and rivers. Telstra contended that the PIE II model would therefore underestimate the length of the cables and trenches that would be needed to navigate these obstacles. It submitted than an obstacle uplift of 2% should be applied to cable and trench distances to account for this understatement of costs; and

- carrier of last resort ("COLR") obligations. Telstra has an obligation as a COLR for all end-users, including those who acquire retail phone services from a competing carrier using the ULLS. According to Telstra, this obligation imposes costs on Telstra and provides benefits to ULLS access seekers and their customers. Telstra contended that the costs of meeting this obligation include the maintenance of its IEN. This is the network that connects all exchanges around Australia. The ULLS does not involve the provision of access to the IEN. Given its belief that the COLR obligation provides benefits to access seekers and their customers, Telstra submitted it was consistent with the statutory criteria for ULLS charges to include a contribution of $[X] to help recover the common costs of the IEN.

335 Telstra's higher bound PIE II model network cost estimates, with the addition of the estimates for the cost of lead-ins, the trench uplift and the gradient and obstacle uplifts (but excluding the costs of the COLR obligation), resulted in the following total monthly cost per SIO:

	1/7/05-30/6/06	**1/7/06-30/6/07**	**1/7/07-30/6/08**
Averaged cost	$34.97	$38.37	$40.26

These values were obtained using the weights set out in par [60] above.

336 Telstra submitted that the reasonableness of its price terms was supported by calculations it had made relating to:

- cost estimates using the NERA model, which resulted in ULLS network costs of approximately $33 per line per month;
- historic costs. Telstra contended that the historic cost of the ULLS network was $27.05 per line per month. Historic costs were estimated using Telstra's regulatory accounting framework ("RAF");
- current costs. The current costs of the ULLS network were estimated by Telstra using a revaluation of historic costs in current cost terms at $[X] per line per month;
- international benchmarks. Telstra contended that average ULLS charges fell at the middle to lower range of prices for this service offered in other major comparison jurisdictions, after purchasing power parity and line density differences had been taken into account.

337 The PIE II model was the subject of considerable criticism by the Commission, Optus and the other intervenors. The Commission's principal submission was that we could not be satisfied that the estimates of network costs produced by the PIE II model were reasonable estimates of the efficient ULLS network costs.

338 The criticisms by the Commission, Optus and the other intervenors of the PIE II model can be summarised as follows:

(a) the model was not transparent as no documentation or user manual was provided with the model;

(b) Telstra had placed restrictions on the ability of other parties (and the experts engaged by them) that prevented them from manipulating and testing the model's underlying architecture and code;

(c) Dr Bridger M Mitchell, Telstra's expert, relied upon a description of the model provided by Telstra and therefore was unlikely to have subjected the model to a detailed review as claimed by Telstra;

(d) Telstra used a methodology to generate ULLS network costs which was different to that described in its submissions;

(e) the model did not represent a forward-looking cost model and as a result overstated Telstra's costs;

(f) there were problems with the architecture of the model because:

- it modelled what a network would look like in 2004/2005 but did not model the network for any of the years covered by the undertakings. There was no evidence before the Tribunal to suggest that an efficient network in each year covered by the undertakings would have similar characteristics to a network modelled as at 1 July 2004;
- it did not model a network that utilised up-to-date technology. It was based on outdated technology, and did not encompass technological solutions that might be cheaper or more efficient than copper (such as WiMAX or 3GSM). So it did not provide reasonable estimates of efficient forward-looking costs; and
- exogenous variables were included because there were deficiencies in the model's operation. It was not reasonable for Telstra to adjust the model's estimates by the inclusion of lead-in costs, trench up-lifts, a gradient multiplier, an obstacle uplift and an amount to reflect Telstra's COLR obligations. The fact that Telstra needed to make exogenous adjustments to the PIE II model was an implicit recognition of the model's deficiencies;

(g) many of the inputs, assumptions and cost estimates used in the model were unreasonable and the impact of altering the inputs into the model to reflect different assumptions could not be assessed;

(h) the revaluation of the asset base was not reasonable;

(i) the NERA model no longer reflected best practice as it was out of date, no longer accurately modelled network costs and was significantly less sophisticated than the PIE II model;

(j) Telstra's historic ULLS network cost estimates were not in fact a reasonable estimate of historic network costs;

(k) Telstra's current network cost estimates were of little or no relevance to the Tribunal's assessment of Telstra's proposed $30 monthly charge; and

(l) the model underestimated the level of trench sharing in new estates (it assumed a new entrant replicating the entire CAN within one year) and this was inconsistent with Telstra's prudent past ability to share trenches and its future ability to share trenches.

339 We turn to the Commission's principal complaint that the PIE II model did not actually model a ULLS network for any of the years covered by the undertakings.

340 The PIE II model seeks to estimate the forward-looking costs of providing the ULLS for each of the years of the undertakings. Under standard forward-looking cost models, this is performed by estimating what would be the efficient cost of providing the service if the network over which it is provided were to be built in the period(s) to which the undertakings relate. A standard forward-looking cost model would seek to consider how the network over which the ULLS was provided (the CAN) would be dimensioned if it was built anew in each of the three periods covered by the undertakings (1 January 2006 – 30 June 2006, 2006/2007 and 2007/2008). To avoid confusion, it should be noted that this does not mean that the capital costs associated with the construction of a hypothetical new network in each period covered by the undertakings would be modelled to be recovered, in full, in each of the periods in which the hypothetical new networks were modelled to be constructed. Rather, the capital costs would be annualised over the lifetime of the assets involved in constructing the network using a tilted annuity formula. Only those capital costs allocated to the first period

using tilted annuity formula would be recovered in the first period in which the hypothetical new network was constructed.

341 In its primary submissions, Telstra asserted that the PIE II model:

> *"… was used to generate network costs estimates in those years* [to which the undertakings related] *by altering inputs and running the model to dimension network for those years, as set out in the statement of Andrew Harvey Briggs, the December Submission and Telstra's Particulars".*

However, Annexure B of Telstra's solicitor's letter of 17 November 2006 to the Commission (the "17 November letter") demonstrated that the assertion that the PIE II model was used to dimension the network for each year of the undertakings was incorrect. This can be seen in particular on page 9 of the 17 November letter where there is a reference to the "Nat average figure" in a report generated by the model being based on a distribution of copper lines in 2004/2005 and not for the years covered by the undertakings. Annexure B shows therefore that the PIE II model, in its ordinary mode of operation, only dimensions, and is capable only of dimensioning, the network for 2004/2005.

342 Paragraph 10 of Annexure B confirms that the PIE II model's cost estimates are based on a distribution of copper lines in 2004/2005, and not for the years covered by the undertakings. Thus, the methodology explained by Telstra in relation to running the PIE II model shows that Telstra has updated the costs of the 2004/2005 network for each year covered by the undertakings but, has not dimensioned the network for those years.

343 That the PIE II model is only dimensioned to model networks dimensioned up to the year commencing 1 July 2004 was also made clear by Telstra in the particulars of the manner in which its efficient costs were calculated. It is also made clear by Mr Andrew Briggs who said that in estimating the efficient costs of providing the ULLS the PIE II model was updated and that the starting point was the model version which included the 2004/2005 inputs. He said that for the purposes of running a sensitivity analysis, the base model for 2004/2005 should be used. In its December 2005 submissions to the Commission, Telstra acknowledged that the PIE II model was run based on 2004/2005 inputs except for the WACC, the price indices used to update the value of assets, and in the annuity calculations.

344 The Commission challenged Telstra's assertion that the PIE II model was a forward-looking model in the sense that it determined the equipment necessary to build the CAN based on forecasts for certain services. The Commission said, correctly, that, in particular, the model did not forecast numbers of SIOs beyond 2004/2005. The Commission contended that it was not reasonable for Telstra to have estimated efficient ULLS network costs for the periods covered by the undertakings by extrapolation from a network existing as at 1 July 2004, and that there was no evidence that an efficient network in each period covered by the undertakings would have similar characteristics, particularly with respect to the number of SIOs, to a network constructed on 1 July 2004.

345 There are a number of other issues which arise in relation to Telstra's application of the PIE II model in respect of the periods covered by the undertakings.

346 The material contained in the 17 November letter in relation to the methodology used in the PIE II model and the manner in which it was to be run was not in accordance with Telstra's earlier evidence. In par 32 of Mr Briggs' statement, and in Telstra's December 2005 submissions to the Commission, Telstra said that it had calculated the ULLS network costs for each period covered by the undertakings by:

(a) using a version of the PIE II model containing 2004/2005 inputs;
(b) making changes to only six price indices (that were listed in the earlier evidence); and
(c) updating the WACC.

347 It is now apparent from the 17 November letter that Telstra altered a further 14 price trends, rather than only the six price trends referred to in par [346(b)] above. This was not stated expressly by Telstra but can be ascertained by comparing the value of the price trends set out in the base or unaltered PIE II model with the value of the price trends that appear in the screen shot of the PIE II model set out in par 4(e) of Annexure B to the 17 November letter.

348 Further, while Telstra saw fit to change a total of 20 price trends (despite indicating it had only changed six), it seems to have decided not to have changed others. This is apparent from the "scenario costs" costing sheet in the PIE II model displayed in Telstra's 17 November letter, which shows that only 13 of the 28 asset categories in the 2004/2005 network dimensioned by the PIE II model have been priced in the relevant periods covered

by the undertakings. Accordingly, only 13 of the 28 asset categories in the "scenario costs" costing sheet have been updated.

349 Further, in the 17 November letter Telstra said that in relation to the cost estimates for the three years of the undertakings:

> *"The inputs used are those contained in the models which were Annexure C to the statement of Andrew Harvey Briggs dated 3 August 2006 and in the ULLS Costs Spreadsheet".*

Annexure C referred to the base model with the 2004/2005 inputs and four additional PIE II versions which estimated network costs for 2006/2007 and 2007/2008 with the low and the high WACC using the updated price indices.

350 It should also be noted that none of the five versions of the PIE II model annexed to Mr Briggs' statement at Annexure C contained inputs for the year 2005/2006. Thus, it is not clear what inputs Telstra may have used in the PIE II model for estimating ULLS network costs for 2005/2006.

351 In Mr Briggs' statement he also said that the price index for the "indirect capital" category used by Telstra was 0.0%. In the 17 November letter, however, Telstra stated:

> *"At all times the figure of -1.9% has been used in the PIE II models as is evident from the models comprising Annexure C to the Briggs Statement. To the extent that the Briggs Statement suggests otherwise it is incorrect."*

If Mr Briggs was incorrect then Telstra was similarly incorrect in par 34 of its December 2005 submissions to the Commission.

352 The Commission submitted that the additional information which Telstra provided to it in the 17 November letter in relation to the process by which, and the manner in which, Telstra used the model and the input values contained in it was not material to which we could have regard because of the provisions of s 152CF(4)(a) of the Act. We do not accept this submission. We are satisfied that the information contained in the 17 November letter fell within the category of information given, documents produced and evidence given to the Commission as required by s 152CF(4)(a). It may be that the Commission was not given a sufficient explanation by Telstra in relation to some of the material, such as input values, contained in the additional information which is to be found in "read only" versions of the

model. Nevertheless, the contents of the "read only" versions of the model were given to the Commission and it was for the Commission to seek further information from Telstra in relation to those contents if it saw fit.

353 As noted earlier, Telstra relied on the expert reports of Dr Mitchell in support of its proposition that it was appropriate and reasonable to rely upon the PIE II model to estimate Telstra's efficient costs of its CAN and its ULLS. Dr Mitchell concluded that the PIE II model appropriately calculated total service long-run incremental costs ("TSLRIC") for the PSTN OTA, the LCS and the ULLS. However, it should be noted that Dr Mitchell relied on Telstra for a description of the model and for a number of other aspects of the model. For example, he said that he was informed by Telstra that:

(a) the major network elements, including distribution and main cables, remote access units, switches, cable trenches and transport facilities were dimensioned using current best-practice design principles; and

(b) provisioning of each network element was based on efficient engineering principles that took into account subscriber and traffic density.

We therefore view with caution Telstra's submission that the model has been the subject of a detailed review by Dr Mitchell.

354 We are not satisfied that the PIE II model depicted the dimensions of Telstra's CAN or its ULLS network for any of the years to which the undertakings relate. Nor did it generate estimates of the costs of constructing such a network for those years. Furthermore, we are not satisfied that it is reasonable for Telstra to justify or support its monthly charge for access to the ULLS by reference to network cost estimates for the years covered by the undertakings which are, in substance, the costs of a network dimensioned for 2004/2005, albeit priced for the years covered by the undertakings.

355 There was no evidence before us to support the proposition that the forward-looking network in any year covered by the undertakings would be the same as, or resembled, the forward-looking network modelled by the PIE II model. In this respect, we note Telstra's submission that the "PIE II model assumes customer addresses and locations as at October 2000." The PIE II model then dimensions the network for changes in the number of SIOs in subsequent years. It does this by distributing "the forecast number of … SIOs … in the CAN

… proportionately among the addresses assumed in the PIE II model". In other words, the PIE II model dimensions the network for changes in the number of SIOs from one period to the next by assuming those SIOs are distributed around the CAN in proportion to customer addresses and locations as at October 2000. We also note that the model assumes there is no change in the aggregate number of SIOs from 2004/2005 onwards. That is, it assumes the number of SIOs remains the same from 2004/2005 through until the end of the periods covered by the undertakings (June 2008).

356 We have two concerns with this approach. First, there is no evidence before us to support the proposition that the aggregate number of SIOs in any given year would continue to be distributed around Telstra's CAN in proportion to how they were distributed in October 2000. That is, for the model's estimates of network costs for the final year covered by the undertakings (2007/2008) to be accurate, the distribution of SIOs in that year would need to reflect that which existed in October 2000. Telstra provided no evidence that this assumption was warranted. Indeed, evidence provided by Dr Mitchell suggested that the distribution of customers around the CAN can vary substantially from one year to the next. He argued that:

> *"Even if the demand aggregated over all geographic areas is steady or declining, the change in demand over time is unlikely to be uniform. Demand at some exchanges or over some parts of the nationwide network may be increasing, particularly in towns and cities that are expanding and in suburbs where there is high growth in new developments (for example, apartment complexes and infill housing).*
> *…*
> *… Australian Bureau of Statistics ('**ABS**') net population change figures by local government area indicate a large variation in population changes between areas. For example, between 2003 and 2004 the biggest increase in population occurred in Perth (12.1%) while the largest decline was in Coolgardie WA (-6.8%)."*

Accepting the evidence of Dr Mitchell, it does not follow that the distribution of SIOs in the last year of the undertakings (2007/2008) would be reflected by the distribution which existed in October 2000. Further, given that the distribution of SIOs amongst the CAN might materially affect the proportion of customers in different bands, this could have significant consequences for the network cost estimates generated by the PIE II model given the difference in cost in providing the ULLS in different bands.

357 Secondly, the PIE II model assumes that the aggregate number of SIOs remains at levels which existed in 2004/2005 for the periods covered by the undertakings. While the

PIE II model is updated for the periods covered by the undertakings to reflect forecast changes in minutes of use for traffic across the CAN for the periods covered by the undertakings, it is not updated for forecast changes in the number of SIOs. We are concerned that the failure to update the PIE II model for changes in forecast numbers of SIOs may have the effect of generating cost estimates that do not accurately reflect the TSLRIC of providing the ULLS during the periods covered by the undertakings.

358 Dr Mitchell briefly addressed the issue of the PIE II model not being updated for forecast changes in the number of SIOs for the periods covered by the undertakings in the context of the roll-forward methodology used in the model as follows:

> *"For ULLS, the roll-forward calculation updates the costs calculated in the PIE II model to account for updated WACC and price trend values but using an unchanged total number of copper lines over the period of the undertaking. As total copper lines are forecast to decline slightly, and assuming that some costs will not fall commensurately with this decline in demand, unit access network costs will be understated by a small amount, resulting in a conservative calculation of ULLS rates."*

Telstra also argued in its submissions that:

> *"... the Commission makes something of the fact that Telstra has used 2004/05 aggregate CAN demand to estimate costs for the Undertaking years. However, even if aggregate demand is lower in the Undertakings years than in 2004/05, this would mean that* ***average*** *costs are higher since a large proportion of CAN costs are fixed. Indeed, to test the sensitivity of this assumption, Telstra has run the low-WACC and high-WACC versions of the PIE II model for 2006/07, updating the SIO forecasts to reflect the decrease in the number of SIOs from 2004/05 to 2006/07 ([X]% over all geographic areas). All other things constant, the resultant average costs increase from $[X] to $[X] and from $[X] to $[X] respectively."*

359 We are not satisfied, however, that the way in which Telstra rolls forward the PIE II model from 2004/2005 to the periods covered by the undertakings is likely to generate appropriate estimates of the TSLRIC of providing the ULLS in these periods. Dr Mitchell provides evidence as to the appropriateness of the PIE II model, but this is almost exclusively directed to the manner in which the model is constructed to estimate the TSLRIC of providing the ULLS in the periods up to the end of 2004/2005. Dr Mitchell provides little evidence as to the suitability of the manner in which Telstra rolls forward the use of the PIE II model into periods subsequent to 2004/2005.

360 Further, even if the limited discussion of the roll-forward methodology by Dr Mitchell that is referred to in par [358] above was enough to satisfy us of the suitability of this approach for estimating costs for the periods covered by the undertakings, we do not know the basis for Dr Mitchell's assumptions that "total copper lines are forecast to decline slightly". Indeed, we are not satisfied that the evidence supports the view that the aggregate number of SIOs in Australia would be likely to decline during the periods covered by the undertakings. In support of the estimates referred to by Telstra at par [358] above, Telstra simply referred to a set of spreadsheets provided to the Commission under the title "*Spreadsheet – PIE II Rollforward New ULLS.xls [Microsoft Excel spreadsheet]*". However, the spreadsheet referred to by Telstra does not contain the PIE II model results that Telstra submitted would follow from an application of its forecast of SIOs for the periods covered by the undertakings. While the spreadsheet referred to by Telstra contains declining SIO estimates/forecasts for the periods covered by the undertakings, the source of these estimates/forecasts is not made clear. Accordingly, the basis upon which Telstra derived the SIO estimates/forecasts contained in the spreadsheets is unclear. Also, it is not clear to us that the aggregate number of SIOs would, necessarily, be expected to decline during the periods covered by the undertakings. In this respect, we note Telstra's submission that:

> *"… it is not clear that the factors that have led to a recent decline in the demand for CAN services will continue and there are strong indications that other factors will drive CAN service demand higher in the future. Anticipated demand for ADSL and high speed Internet services (i.e., not just voice telephony) are also factors Telstra must take into account in provisioning for future demand for CAN services."*

We would also point out that in its primary submissions Telstra said that:

> *"The CAN expands each year due to new estates. The CAN therefore grew at a rate of approximately [X]%, [X]% and [X]% per annum in 2003/04, 2004/05 and 2005/06 respectively."*

361 Telstra separately referred to other evidence from Mr Craig Lex Hedges, Technology Infrastructure Manager, Copper, Fibre, HFC, that it extended the access network to provide services in 2003/04 to [X] new locations, in 2004/05 to [X] new locations and in 2005/06 to [X] new locations. While it may be that the number of locations to which the CAN extends does not match the number of SIOs in the CAN (because some locations to which lines were previously provided no longer have active SIOs, or as many active SIOs), the basis of any

discrepancy between assumed declines in SIOs going forward and growth in the extent of locations in the CAN in the past is not explained by Telstra.

362 Overall, we are not satisfied that the roll-forward methodology employed by Telstra is likely to generate accurate estimates of the TSLRIC of providing the ULLS during the periods covered by the undertakings.

363 More particularly is this so given that Telstra has selectively updated only a small proportion of the total number of variables in the PIE II model when estimating the TSLRIC of the ULLS in the periods covered by the undertakings. We have not been provided with any evidence that only updating the small subset of the PIE II model variables Telstra chose is a suitable selection of variables to update in isolation in order to generate accurate estimates of the TSLRIC of the ULLS for these periods using the PIE II model. In this context, we have particular regard to Telstra's submissions that:

> *"As the Commission is aware, it is important that the input parameters in the model be consistent and it is often impossible to adjust one parameter without impacting on others.*
>
> *...*
>
> *The PIE II model was built in June 2000. Since then, and throughout the Undertaking process, it has been possible for Telstra to update the vast majority of 'forecast' variables and to replace them with 'actual' data. However, Telstra submits that if this is to occur and be considered robust, the process must be comprehensive and not selective."*

364 While it may be that the small number of variables chosen to be updated is sufficient to generate accurate TSLRIC estimates for the periods covered by the undertakings, there is no evidence before us to suggest that this is the case.

365 In summary, there was no evidence before us to support the proposition that the forward-looking network in any period covered by the undertakings would be the same as, or resembled, the forward-looking network in respect of the year 2004/2005. This is particularly so having regard to changes which occur over time in the number of SIOs. In this respect, we note again the inconsistency between Dr Mitchell's evidence that the model uses an unchanged total number of copper lines over the periods of the undertakings because total copper lines are forecast to decline slightly and Telstra's evidence that the CAN expands each year due to new estates (see par [360] above).

366 We are also not satisfied that the PIE II model can be relied upon to estimate Telstra's efficient network costs having regard to the issue in relation to the alteration of price trends referred to above in par [347]. The issues we have raised in relation to the PIE II model and the deficiencies and short comings to which we have referred, individually and cumulatively, lead us to the conclusion that we cannot be confident, nor can we be satisfied, that the PIE II model can be relied upon accurately to estimate Telstra's network costs of supplying the ULLS for the periods covered by the undertakings.

20. EXOGENOUS ADJUSTMENTS TO THE COSTS ESTIMATED BY THE PIE II MODEL

367 We turn to the exogenous adjustments to the ULLS network costs estimated by the PIE II model which Telstra made in order to take account of lead-in costs, trench up-lifts, a gradient multiplier, obstacle up-lift and an amount to reflect Telstra's COLR obligations: par [334].

368 When these exogenous adjustments are added to the PIE II model's high WACC ULLS cost calculations referred to in par [333] above, Telstra estimates that these adjustments result in the network cost estimates set out in par [335] above.

369 The Commission, Optus and the other intervenors criticised the use of the exogenous adjustments and specifically criticised the level of each of the adjustments. We consider the criticisms of the use of the exogenous adjustments first.

370 The Commission contended that the fact that Telstra needed to make exogenous adjustments to its PIE II model was an implicit recognition of the deficiencies in the model. It also contended that exogenous estimation, without knowing whether the PIE II model would produce consistent outputs if these adjustments were made endogenously, was unreasonable. Optus submitted that none of the claimed costs were relevant or reasonable.

371 Telstra accepted that the PIE II model had not taken into account the additional costs that it claimed, but contended that that was no reason for it not to recover those costs. It argued that, if the costs were left unrecovered, then ULLS charges would be below long-run costs. It contended that if the resulting cost estimate was reasonable it was irrelevant whether adjustments were made exogenously or endogenously. We accept this contention.

372 Whether an adjustment is made exogenously or endogenously to the model is not the relevant consideration. We must be satisfied on the evidence available that the exogenous adjustments claimed by Telstra are reasonable, and that they give rise to an overall ULLS cost estimate that can be relied upon to form the basis of a charge in an undertaking that is reasonable.

373 Given our conclusion that we are not satisfied that the PIE II model can be relied upon to estimate Telstra's efficient network costs (see par [366]), we do not propose to deal in any detail with the submissions made by the parties in relation to the exogenous adjustments. However, having assessed the evidence provided by Telstra in support of the exogenous adjustments, we are not satisfied that Telstra has provided sufficient evidence to support its contention that the exogenous adjustments should be made to the cost estimates produced by the PIE II model. Although there was extensive material tendered by Telstra, the material that was put before us was little more than a technical recitation of the manner in which each of the adjustments had been calculated. The material did not support the reasonableness of the adjustments nor did it satisfy us that the adjustments were necessary to correct deficiencies in the model. Further, even if such adjustments should be made, there was little evidence provided to support the proposition that the proposed quantum of these adjustments would be likely to represent amounts necessary to recover the efficient costs associated with the proposed adjustments.

21. ALTERNATIVE SUPPORT FOR THE REASONABLENESS OF TELSTRA'S NETWORK COSTS

374 Telstra submitted that in the alternative to its estimates of the ULLS network costs by reference to the PIE II model, we should be satisfied of the reasonableness of Telstra's ULLS network costs by having regard to:

- the cost estimates generated by the NERA model;
- Telstra's historic ULLS network cost estimates;
- Telstra's current ULLS network cost estimates;
- international benchmarks.

375 Telstra submitted that we could use the TSLRIC model built for the Commission by the economic consulting firm NERA to estimate ULLS network costs. The model was first built by NERA for the Commission in 1999 and was adjusted by the Commission to enable it to estimate ULLS network costs in 2000/2001 and 2001/2002. Telstra submitted that if we were to adopt that model (incorporating the adjustments that the Commission made when it last utilized the model), the results of the model could be extrapolated to provide an estimate of ULLS network costs for the periods covered by the undertakings. Telstra submitted this could be achieved by taking the rate of change in the model's ULLS cost estimates between 2000/2001 and 2001/2002, and extrapolating this rate of change through to the periods covered by the undertakings. Using this approach, Telstra submitted that the cost of providing the ULLS would be approximately $33 per line per month during the periods covered by the undertakings, which was higher than the charge proposed in the undertakings.

376 The Commission contended that the adjusted NERA model no longer reflected best practice and was significantly out of date as it had not been updated since 2000/2001. In a submission to the Commission dated 25 July 2004, Telstra accepted that the NERA model was significantly out of date and no longer provided any meaningful insight into the cost of its network.

377 In the light of this acknowledgement by Telstra, we are not satisfied that the NERA model adequately models the current ULLS network costs or that the model provides a reasonable estimate of the efficient network costs associated with providing the ULLS for the periods covered by the undertakings.

378 Telstra submitted that its historic ULLS costs provided a useful basis for assessing the reasonableness of its network costs. Telstra estimated that the historic cost of a ULLS line is $27.05 per month by reference to Telstra's regulatory accounting framework (RAF) accounts prepared for the Commission using the Commission's record keeping rules (RKR) accounts.

379 The Commission contended that a reasonable estimate of the historic cost of the ULLS would be approximately $12.14 per line per month. The Commission arrived at this figure by making adjustments to the historic costs contained in Telstra's RAF accounts. Telstra submitted that these adjustments defeated the purpose of using the historic cost

accounts as they were used for the purpose of avoiding subjective choices of assumptions and methodologies which are necessary in a TSLRIC analysis.

380 We do not accept that the historic ULLS costs put forward by Telstra provide a useful basis for assessing the reasonableness of the ULLS costs estimated for the periods covered by the undertakings, or are consistent with a TSLRIC analysis because they are based on the actual costs incurred by Telstra in providing the service and these need not necessarily represent the forward-looking efficient costs of providing the ULLS. The Tribunal has previously stated that TSLRIC is a forward-looking cost concept which is designed to determine how an access provider would build a network today using the most efficient technology available. Historic costs need not bear any resemblance to what Telstra's costs would be if it were to build the network today.

381 The Commission contended that Telstra's current costs were of little or no relevance to our assessment of Telstra's proposed $30 monthly charge because current costs reflected neither the actual network costs incurred by Telstra in supplying the ULLS nor the efficient forward-looking network costs of supplying the ULLS. Telstra submitted that the current costs were a better reflection of the costs that an access seeker would incur today if it were to supply the ULLS than historic costs, as they reflected the purchase price of assets today.

382 We do not consider that the current cost of building an existing CAN is necessarily likely to be an accurate guide to the forward-looking TSLRIC of providing the ULLS. It is not clear to us that an access provider building a network today would choose the same assets as it uses in its current network. We do not accept that Telstra's current cost estimate of providing the ULLS constitutes sufficient evidence as to the likely TSLRIC of providing the ULLS, nor, therefore, to the reasonableness of Telstra's ULLS access charge for the periods covered by the undertakings.

383 Telstra submitted that its comparative international benchmarking analysis supported the reasonableness of monthly access charges in its undertakings. The analysis is contained in a report entitled *Telstra's response to the Commission's Draft Decision on Telstra's ULLS Monthly Charge Undertaking dated 23 December 2005 – ULLS Price International Benchmarking*. In this report Telstra provided information regarding the regulation of the ULLS (or similar services) in a number of other jurisdictions, outlined the current pricing

structure in those jurisdictions, and provided a comparison of ULLS monthly charges across those jurisdictions, taking into account differences in purchasing power parity and line density.

384 The Commission contended that before international benchmarks could be resorted to, we must be satisfied that, notwithstanding differences between Australia and the relevant international jurisdictions, those international benchmarks were reasonable comparators. It submitted that relevant differences might include matters such as the definition of the regulated service, the applicable regulatory framework, the geographic price structure, the cost of capital, the prescribed cost standard (if any), and population concentration (as opposed to population density). Telstra submitted that it had dealt with the majority of the matters identified by the Commission.

385 We are not satisfied that Telstra has provided sufficient evidence to support the use of international benchmarking. Although Telstra's benchmarking report contains summary information regarding ULLS regulation in other jurisdictions, in order to place any reliance upon the international benchmarking analysis it would be necessary to know much more about the regulatory framework, the cost of capital and the price structures employed in other jurisdictions. The summary tables provided by Telstra did not provide us with sufficient information to determine whether the benchmarks were reasonable comparators for Telstra's ULLS monthly charges. In addition, we are not satisfied that the adjustment of the benchmark ULLS charges only for purchasing power parity and line density takes into account all the adjustments that need to be made to the benchmark ULLS charges for them to be reasonable comparators. The costs of providing the ULLS (or similar services) can vary between jurisdictions for a myriad of reasons and we need to be careful when comparing cost estimates across different jurisdictions. The benchmarking analysis conducted by Telstra only makes adjustments for a small number of the possible differences that might exist to generate cost differences in the surveyed jurisdictions. Telstra has not provided us with sufficient evidence to satisfy us that the cost estimates from other jurisdictions considered by Telstra in its international survey do not require further adjustment before we can rely on them to assist in determining the reasonableness of a proposed access charge for the ULLS.

386 In summary, we do not accept Telstra's contention that we should be satisfied of the reasonableness of Telstra's ULLS network costs by having regard to cost estimates generated

by the NERA model, the historical ULLS network costs, the current ULLS network costs or international benchmarks. We have not found that these estimates provide alternative support for the reasonableness of Telstra's estimated network costs for the periods covered by the undertakings.

22. ULLS SPECIFIC COSTS

387 As noted in par [59] above, Telstra's costs supporting the monthly charge of $30 per line in its undertakings comprise ULLS network costs and ULLS specific costs. ULLS specific costs are those costs a ULLS access provider would necessarily incur in order to supply the ULLS to access seekers. They are specific to the provision of the ULLS and they comprise:

- capital expenditure to accommodate the ordering and provisioning of the ULLS;
- operating and maintenance (O&M) costs for IT systems;
- operating costs associated with the ULLS front-of-house connection group;
- operating costs associated with wholesale product management of the ULLS; and
- indirect O&M costs associated with the front-of-house connection group and the wholesale product management team.

Telstra's estimates of lower and higher values of ULLS specific costs to support the charge contained in the undertakings are set out in par [59] above.

388 Telstra estimated its range of ULLS specific costs using:

- the Specific Costs Model which it provided to the Commission on 10 August 2006 (the "SC Model");
- certain calculations presented to the Commission during the course of its inquiry into whether to accept the undertakings (the "SC Calculations"); and
- cost estimates based on Telstra's actual costs.

389 Telstra's ULLS specific capital costs were calculated for the periods from 2000/2001 to 2007/2008. The majority of these costs were incurred prior to the periods covered by the undertakings. No capital costs were estimated to be incurred during the final two periods

covered by the undertakings (2006/2007 and 2007/2008). The capital costs were converted into annual costs using a tilted annuity formula which was designed to determine the particular amount of cost that should be recovered in specified periods. The tilted annuity formula is also designed to ensure that these amounts enable Telstra to earn a return on its capital expenditure. The size of this return is determined by the choice of the WACC used in the tilted annuity formula. Telstra estimated both low and high amounts for its ULLS specific costs by applying a low and a high WACC value in its tilted annuity formula.

390 Using the estimates of capital costs, O&M costs and indirect O&M costs, Telstra then undertook a two-stage process to estimate per service per month ULLS specific cost estimates for the periods covered by the undertakings. In the first stage, Telstra estimated a low and a high level of ULLS specific costs that would be incurred in each of the three periods covered by the undertakings (1 January 2006 to 30 June 2006; 2006/2007 and 2007/2008).

391 In making these estimations, Telstra divided its total cost figures by demand for the ULLS only. It did not seek to allocate its ULLS specific costs over a broader category of demand, such as the total number of CAN lines or the total number of lines capable of providing xDSL services. It did not seek to levelise the costs it expected to occur over the periods covered by the undertakings, that is, it did not seek to estimate a constant amount that should be recovered over each of the periods covered by the undertakings through a method that would smooth the individual unit costs incurred in the different periods covered by the undertakings.

392 In the second stage of its process for calculating ULLS specific costs, Telstra sought to add to the amounts for capital costs, O&M and indirect O&M costs an amount in each period to reflect unrecovered ULLS specific costs from the periods prior to the periods covered by the undertakings (from 2000/2001 to 31 December 2005). Using actual demand from, and prices set in, the periods from 2000/2001 to 31 December 2005, Telstra calculated the revenue it received from providing the ULLS in these periods. It then compared this to the low and high cost estimates for each of these periods. The result was that the revenue received from the ULLS fell short of the costs estimated for these periods.

393 Telstra then sought to recover this shortfall in the charge for access to the ULLS during the period covered by the undertakings by spreading its estimate of its unrecovered costs over a measure of expected demand for the ULLS for the periods covered by the undertakings. In this way, Telstra estimated lower and higher monthly per ULLS estimates for unrecovered costs from previous periods which were then added to the lower and higher ULLS specific cost estimates for each of the periods covered by the undertakings. This gave rise to the lower and higher ULLS specific cost estimates set out in par [59] above.

394 Telstra contended that:

- the SC Model (used to calculate its lower bound estimates of ULLS specific costs) was an adequate available model to inform us as to the range of the specific costs necessary to provide the ULLS;
- the SC Calculations (which appear to be the basis for the upper bound estimates of ULLS specific costs) should be relied upon to inform us as to the range of the specific costs necessary to provide the ULLS; and
- the specific costs incurred by Telstra in providing the ULLS should only be allocated to, and recovered by, the ULLS, and should not be allocated across a broader range of services.

395 The Commission, Optus and the other intervenors submitted that the method used by Telstra to allocate and recover its ULLS specific costs was unreasonable. They contended that:

- the ULLS specific costs should be allocated across a broader range of services such as all CAN lines or all lines which were used as xDSL lines. Reliance was placed on *Telstra Corporation Limited* (supra) (colloquially known as the line sharing service (LSS) decision);
- it was not reasonable for Telstra to recover, through the ULLS monthly charge, those of its ULLS specific costs in previous periods that were unrecovered;
- it was not reasonable for Telstra to recover wholly the efficient ULLS specific costs in the year, or part thereof, in which they were forecast to be incurred – that is, for those costs to be recovered without any levelisation of them;

- it was not reasonable for the ULLS specific costs in previous periods that were unrecovered to be levelised using the periods of the undertakings (over two and a half years); and
- there was insufficient information presented by Telstra to enable us to be satisfied that certain inputs represented efficient, and therefore reasonable, input parameters.

396 We do not accept Telstra's submission that the specific costs incurred by it in providing the ULLS should only be allocated to, and recovered from, the ULLS and should not be allocated across a broader range of services, such as all active or potentially active xDSL lines.

397 In *Telstra Corporation Limited* (supra), the Tribunal was faced with competing contentions. Telstra contended that the LSS-specific costs should be allocated over the LSS lines which were either made available to access seekers or in respect of which there was a forecast demand over the relevant levelisation period. The Commission, Optus and other parties contended for a wider spread of the LSS-specific costs over at least the lines in respect of which an xDSL service had been used or was being used. The Tribunal was satisfied that, consistent with the matters set out in ss 152AH and 152AB, it did not consider that Telstra's approach to cost allocation was reasonable when it was limited to LSS active lines and LSS lines forecast to be active over the relevant levelisation period.

398 Telstra sought to distinguish the LSS decision. It submitted that it was evident from the Tribunal's findings and observations that the primary reason for rejecting Telstra's cost allocation was because there was no evidence before the Tribunal to justify Telstra's claim that it had to bear cost categories similar to those comprising LSS-specific costs in supplying its retail xDSL services. That was one of the reasons why the Tribunal rejected Telstra's cost allocation submissions but it was not the only reason. The Tribunal found that there was no evidence to support Telstra's submission that in supplying its retail xDSL service it incurred costs of a similar category which comprised the LSS-specific costs and that it incurred the same type of costs as were incurred by other access seekers who sought access to the LSS. However, the Tribunal then went on to analyse whether Telstra's cost allocation was reasonable having regard to the matters set out in ss 152AH and 152AB. The Tribunal undertook that analysis in pars [133]-[166] of the LSS decision.

399 Telstra submitted that in this proceeding there was adequate evidence establishing the reasonableness of Telstra's specific cost allocation across ULLS lines which were accessed or forecast to be accessed. It contended that we had before us sufficient evidence to enable us to find that Telstra does incur its own ordering and provisioning costs in providing xDSL services in categories similar to those used in determining ULLS specific costs. Telstra relied in particular on the evidence of Mr Atul Kher, Mr Andrew Briggs and Ms Jacqueline McGrath. The Commission was critical of some of Mr Briggs' evidence as it contended that the xDSL costs he provided were not limited to costs of an equivalent nature to the ULLS specific costs as they also included retail costs of providing xDSL services. Telstra accepted this criticism but maintained that the balance of the cost categories considered by him appropriately reflected Telstra's internal ordering, provisioning and accessing network costs for xDSL. Telstra contended that the evidence was sufficient to enable us to conclude that the circumstances in this proceeding were distinguishable from those in the LSS decision.

400 Telstra's submissions failed to recognise, as noted earlier, that the Tribunal in the LSS decision subjected Telstra's cost allocation across LSS lines to critical analysis and had regard to the matters set out in ss 152AH and 152AB in determining that that cost allocation was not reasonable having regard to those matters. We consider that, in principle, the Tribunal's analysis in this respect in the LSS decision applies to Telstra's cost allocation in this proceeding across ULLS lines only. We are prepared to accept, for the purposes of the argument, that Telstra does incur ordering and provisioning cost categories in respect of its supply of xDSL services which are comparable with cost categories constituting the ULLS specific costs. But that assumption does not resolve the issue of Telstra's cost allocation. It still requires Telstra's cost allocation to be subjected to the question whether it is reasonable having regard to the matters set out in ss 152AH and 152AB.

401 It is important to recognise in this context that access seekers such as Optus and the other intervenors have no control over, or say in, the development of the ULLS specific costs. Those costs are incurred by Telstra and access seekers have no input into them. Similarly, access seekers have no control over, or say in, the development of Telstra's internal ordering and provisioning cost categories in respect of its supply of its xDSL services. If Telstra's allocation of ULLS specific costs is accepted then the opportunity is created for different levels of costs to be established or incurred for ULLS specific costs and Telstra's internal

cost categories in respect of its supply of its xDSL services notwithstanding Telstra's SAO (s 152AR(3)(b)) to take all reasonable steps to ensure that the technical and operational quality of the service it supplies to access seekers (which includes ordering and provisioning) is equivalent to that which it provides to itself.

402 That situation is not in the long-term interests of end-users as it does not promote competition in relevant markets, nor does it encourage the economically efficient use of, and the economically efficient investment in, the infrastructure by which the ULLS and other services are supplied. It is not in the legitimate business interests of Telstra or its investment in facilities used to supply the ULLS that it have the ability or capacity to impose levels of costs on access seekers to the ULLS which are different from the levels of costs in the similar cost categories in respect of its supply of its xDSL services. Put another way, it is not in Telstra's legitimate business interests to be able to raise its rivals' costs in circumstances where its rivals have to accept Telstra's determination of the level of its ULLS specific costs.

403 Such an allocation is not in the interests of access seekers either. It does not give them any guarantee that the level of ULLS specific costs will be no greater than the level of the similar cost categories in respect of Telstra's supply of its xDSL services.

404 Our inquiry is directed to determining whether Telstra's allocation of its ULLS specific costs is reasonable, having regard to the matters set out in ss 152AH and 152AB. As in the LSS decision, we are not concerned to inquire whether any other cost allocation method is more reasonable. However, we would note that if the ULLS specific costs are allocated, for example, over all active or potentially active xDSL lines and the xDSL specific costs are also allocated over all ULLS lines and all active or potentially active xDSL lines, then a level playing field is achieved in respect of the costs which are specific to the ordering and provisioning of competing products such as services provided through access to the ULLS and services provided through access to Telstra's xDSL service.

405 If Telstra is in control of the determination of the ULLS specific costs, as it is also in relation to the level of its xDSL service specific costs, which give rise to competing products, competition is not promoted because Telstra has the opportunity to determine and impose differential costs between these two services in respect of which access seekers to the ULLS have no control or recourse. Efficiency does not enter into the equation at this level of costs.

If Telstra argues that it should have the opportunity to be more efficient in relation to the incurring of costs in those categories which relate to its supply of its xDSL services, the answer is that Telstra should also be efficient in the incurring of the costs in relation to the specific costs applicable to the supply of the ULLS which it imposes upon access seekers to the ULLS.

406 The choice of the ordering and provisioning system that Telstra uses to provide the ULLS, as well as its internal services such as the LSS and its xDSL services, are beyond the control of access seekers. It follows that the separate ordering and provisioning which Telstra chooses to use when supplying its own internal retail customers and its wholesale customers, such as access seekers acquiring the LSS and the ULLS, are not factors over which access seekers can seek to bring to bear their relative efficiencies. Access seekers can only bring their relative efficiencies to bear upon the retailing and certain other stages of the production processes. A broader cost allocation method such as proposed by the Commission, Optus and the other intervenors would enable access seekers to compete with Telstra on the basis of relative efficiencies that they can influence because they can compete in respect of matters over which they are able to exercise control.

407 Telstra's specific cost allocation enables it to have a level of efficiency for itself in respect of matters such as the ordering, provisioning and accessing of its xDSL service which access seekers to the ULLS do not have in relation to ordering, provisioning and accessing the ULLS.

408 Put shortly, Telstra's specific ULLS cost allocation does not promote competition because it enables Telstra to provide one set of costs to itself and a different set of costs to access seekers who are its competitors at the retail level.

409 Telstra submitted that we are required to have regard to the desirability of allowing access providers to benefit from the economies of scale and scope by s 152AB(6)(b). We accept that proposition, but Telstra is not disentitled from this benefit if we reject as unreasonable its allocation of ULLS specific costs. It is still able to benefit from its economies of scale and scope at the retail level.

410 The interests of persons who have a right to use the ULLS: s 152AH(1)(c), and the legitimate commercial interests of allowing an access provider to benefit from its economies of scale and scope: s 152AB(6)(b), are satisfied by giving all relevant parties, that is access seekers to the declared service and access providers of the declared service who are vertically integrated and provide retail products which compete with the products provided by access seekers who gain access to the declared service, the benefit and advantages of economies of scale and scope up to the point of access. Thereafter, that is after access seekers have access to the declared service, in this case the ULLS, and at the point at which the access provider, in this case Telstra, offers its competing retail product, such as access to its xDSL service, access seekers have the opportunity to benefit from, and turn to their advantage, their own relative costs and production efficiencies, and Telstra has the opportunity to do the same, including the benefit from, and exploitation of, such economies of scale and scope as are available to it.

411 It follows from our reasoning that, having regard to the matters set out in ss 152AH and 152AB, we are not satisfied that Telstra's allocation of its ULLS specific costs across ULLS accessed or forecast accessed lines only is reasonable.

412 In the alternative to its submission that the ULLS specific costs should only be allocated to, and recovered from, the ULLS, Telstra submitted that if the ULLS specific costs and the LSS and xDSL specific costs were allocated across all ULLS, LSS and xDSL services, the per service specific costs would be $6.68. Telstra relied upon the evidence of Mr Andrew Briggs who explained how this figure was derived. That figure is more than the figures for Telstra's specific costs set out in par [59]. The Commission contended that there was insufficient evidence before us regarding the figure derived by Mr Briggs to enable us to be satisfied as to the reasonableness of that figure. Having regard to the other findings we have made, which are set out in par [474] below, it is not necessary to reach a final conclusion on this alternative submission.

413 The consequence is that we are not satisfied, having regard to the matters set out in ss 152AH and 152AB, that Telstra's estimates of its ULLS specific costs set out in par [59] above are reasonable. In these circumstances it is not necessary to consider or resolve the other issues raised in relation to Telstra's estimates of its ULLS specific costs.

23. THE WEIGHTED AVERAGE COST OF CAPITAL

414 Two issues of principle were presented to us by Telstra with respect to the weighted average cost of capital (WACC):

- the reasonableness of using two distinct WACCs, one to annualise the costs of CAN assets used to deliver the ULLS and the other to annualise the specific assets used in the delivery of the ULLS, mainly software systems, in order to reflect the different levels of systematic risk that applied to the two different types of assets; and
- regardless of whether one or two WACCs were accepted, the reasonableness of adjusting the WACC by the addition of an amount equal to one standard deviation, in order to allow for an alleged asymmetry in the social consequences of errors made in estimating the WACC. The argument advanced was that the social consequences of underestimating it were of much greater importance than were the likely social effects of overestimating it.

Both issues of principle were contested strongly by the Commission, while the second issue was also the subject of considerable counter-argument by Optus.

23.1 THE USE OF TWO DISTINCT WACCS

415 Telstra submitted that it was justified in using two distinct WACC values, one for the CAN used to deliver the ULLS, and one for the ULLS-specific assets, because the software assets used to deliver the ULLS were exposed to a different systematic risk than that faced by the CAN overall, so that a CAN WACC was not relevant for costing these specific software assets.

416 Telstra argued that assets that were part of the CAN such as cables and trenches were long-lived, tangible, yielded scale and scope economies, and had a number of alternate uses, whereas the IT systems assets that supported the ULLS were intangible, short-lived, and had very limited other uses.

417 In support of these submissions, Telstra relied heavily on the reports it had commissioned from Professor Robert Bowman, a Professor of Finance at the University of Auckland, and an acknowledged international expert and consultant on cost of capital matters.

418 Telstra submitted that the Commission's opinion that the same cash flows should recover both network and specific costs was unconvincing because it was commonly understood that investment decisions were made on the basis of both revenue and costs, not just revenue or cash flows alone. It was therefore inappropriate for the Commission to contend, in circumstances where an investor has markedly different cost pools, that recovery of those costs should not be differentiated.

419 Telstra further contended that Professor Bowman provided a commercially sensible perspective on the treatment of the software assets used to provide the ULLS in that they should be treated as being separate from the CAN, conceptually treating the use of the CAN as a contracted service rather than as an integral part of the ULLS. This was because the proposed ULLS charge could be viewed as consisting of an element that was intended to recover ULLS specific costs, as well as a contribution to the costs of the CAN assets used to provide the ULLS.

420 Telstra contended that the costs associated with the component of the CAN used in the provision of the ULLS could be calculated using a CAN-specific WACC (although the services relevant for the ULLS were likely to have a higher systematic risk than the CAN overall). The CAN enabled the provision of a portfolio of services, each with an individual service-specific systematic risk that ranged across a broad spectrum of values. The services which were relevant for the ULLS costing were at the higher systematic risk end of this spectrum, above the average systematic risk of the CAN.

421 Telstra argued that the reason for this difference was that:

- the CAN assets were used to provide a wide range of services, so that the overall risk associated with those assets was mitigated by a portfolio effect;
- the demand for the ULLS depended, in part, on final demand for ADSL services because the ULLS was ordinarily used to provide ADSL services. The demand for ADSL services was likely to have a higher degree of systematic risk than the overall demand for CAN services;
- the demand for the ULLS would not necessarily mirror the final demand for ADSL services, as there were several ways in which access seekers could provide like services; and

- therefore ULLS demand would have a higher degree of systematic risk than demand for the complex range of services provided by the CAN assets, for reasons including the portfolio effect.

422 Telstra submitted that, accordingly, use of the CAN WACC underestimated costs for that part of the CAN relevant for the ULLS and was not relevant for the ULLS specific software assets. The ULLS specific software assets did not support any services other than the ULLS. The only cash flows from which specific assets costs could be recovered were those derived from the sale of the ULLS. The risk associated with those cash flows was consequently the risk associated with the net revenue generated from the sale of the ULLS. There was no reason why the risk associated with the net cash flows from the ULLS would be the same as the risk associated with the net cash flows from the set of services supplied by the CAN.

423 Telstra, in response to the Commission, submitted that there was nothing in Professor Bowman's approach that relied on or required the analogy of two businesses operated by separate providers. Rather, the conceptual basis of his approach was the well-accepted principle of value additivity, which states that the present value of the cash flows associated with a joint project (comprised of separate sub-projects) was the sum of the present values of the respective sub-projects considered in isolation.

424 The Commission opposed this proposed bifurcation of WACC values. It submitted that ULLS network costs and ULLS specific costs should be recovered through the same cash flows, and that a single WACC should be calculated and applied to both sets of costs.

425 In the Commission's opinion, Telstra's approach was based on an untenable assumption that was divorced from reality as the ULLS would not, in fact, be provided by two independent service providers. Telstra had assumed that a stand-alone service provider would provide the ULLS network, and a separate stand-alone provider would operate the assets necessary to allow access seekers to obtain the ULLS. This would not, in practice, be the situation. As the Commission put it:

> *"From Telstra's perspective, the systematic risk associated with the decision to operate the PSTN is based on the aggregate cash flows generated by that asset, including the ULLS and all other services provided via the PSTN. Accordingly, one WACC value ought to have been estimated by Telstra, based*

on the systematic risk associated with the PSTN, and applied to its estimate of ULLS network costs and ULLS specific costs."

426 The Commission referred to Professor Bowman's December 2005 Report on the Appropriate Weighted Average Cost of Capital for ULLS and SSS ("Spectrum Sharing Service") in which he said:

> *"36 The provision of ULLS and SSS requires the use of the PSTN. In my analysis here I focus on the assets and services specific to ULLS and SSS. I treat the use of PSTN as a contracted service rather than an integral part of ULLS and SSS.* ***I understand that this is consistent with the asset values and the development of notional cash flows to which the WACC will be related****.*
>
> *37 In my opinion, this approach is superior to considering ULLS and SSS as simply being a part of PSTN."*
>
> (Emphasis added)

The Commission submitted that while Professor Bowman had adopted the approach of distinguishing between ULLS specific costs and network costs, he did not offer an opinion whether such an approach was appropriate. The Commission contended that he had not formed a view about the appropriateness of estimating two separate WACC values.

427 Professor Bowman's endorsement of Telstra's approach on this issue was given more as a matter of principle, rather than as a result of testing the principle against the two sets of assets that Telstra was seeking to differentiate for the purposes of estimating WACC values. We do not consider that Professor Bowman analysed in sufficient detail the issue of the appropriateness of differentiating between ULLS network assets and ULLS specific assets for the purposes of calculating WACC values.

428 We accept that, in theory, different assets or different asset classes could normally be expected to face systematic risk characteristics that are sufficiently different to justify the application to them of different costs of capital. Accordingly, in the present circumstances, where the assets that comprise the CAN, which are largely what might be termed long-lived hard physical assets, are obviously different from the assets that are specific to the provision of the ULLS (such as computer software), it is arguable that different WACC values can be validly determined for each asset group.

429 However, the leap from theoretical possibility to practical reality can be a large one. While the underlying logic that supports the notion that a firm may experience different WACC values for each of its asset classes is undeniable, the party arguing for any multiplicity of WACC values needs to present a detailed justification not only as to how the various asset classes differ, but why these differences justify separate WACC values, as well as supporting arguments and calculations that enumerate the actual differences.

430 We were not provided with enough specific material to satisfy us that, in this particular matter, two distinct WACC values were reasonable. Neither the Commission nor Telstra tested the claim with hard analytical evidence. No attempts to provide any quantitative evidence were made by Telstra, whose presentation through Professor Bowman was made largely as a matter of principle, rather than through a systematic testing of the principle against the two sets of assets that Telstra was seeking to bifurcate for the purpose of estimating the WACC values.

431 In addition, no attempt was made by the parties to inform us as to whether the use of one WACC or two made any significant quantitative difference to the overall return that Telstra could earn. Given the relative imbalance in the sizes of the two groups of assets, the net effect on Telstra's earnings of choosing one approach over the other may in effect have been of negligible practical proportions, depending on the actual asset and WACC values that are brought into the estimation.

432 Generally, we found the level of assertion by both the Commission and Telstra on this issue unhelpful. We are unable to be satisfied, having regard to the matters set out in s 152AH and the objectives in s 152AB, that the claim by Telstra for two WACCs, one for the assets in the CAN and one for the ULLS-specific assets, is reasonable.

23.2 A CORRECTION FOR WACC ASYMMETRY

433 Telstra submitted that the social consequences of getting the estimate of the WACC wrong were not symmetrical. An overestimate of the true WACC, it said, produced far less serious long run social damage than did an underestimate of that value.

434 Telstra argued that should a regulator set a WACC that was too high relative to its true value (we note that such a value can never be ascertained), end-users might suffer in the

short run, but the excessive return would attract new entrants and this competition would restore prices to an acceptable level. That is, a WACC set too high would be self-correcting over time.

435 In contrast, a WACC that was set at commercially unrealistically low levels would lead to firms delaying new investments or possibly exiting the market. Under this scenario, the quality of service would deteriorate, and ultimately the service might not be offered at all. Telstra did not see any likely self-correcting mechanism being possible under this scenario.

436 In putting its case that an allowance needed to be made for the asymmetric consequences of error in estimating the WACC, Telstra again relied heavily on the reports of Professor Bowman.

437 The Commission, Optus and the other intervenors provided little by way of expert analysis and reports to counter the propositions put forward by Professor Bowman. Rather, they attacked the premises that formed the foundation of his estimates, arguing that the process adopted by him in deriving his recommended WACC values could not produce reasonable parameter estimates.

438 The only direct counter to Professor Bowman put into evidence was the critique by Mr Jason Ockerby, the head of regulatory economics at Optus. He made several criticisms of Professor Bowman's reports, which Telstra submitted had been addressed by Professor Bowman. However, Mr Ockerby's critique with respect to the asymmetrical effects of underestimating and overestimating the WACC were not dealt with in Professor Bowman's responses to Mr Ockerby.

439 This issue comprised two separate enquiries: are there asymmetrical effects caused by estimating the WACC either too high or too low and, if so, should an allowance be made for these errors, and to what numerical extent?

23.3 ARE THERE ASYMMETRICAL EFFECTS IN ESTIMATING THE WACC?

440 Optus submitted that in order for an uplift to the WACC to take account of asymmetrical effects to be justified, it had to be shown that the capital supplied in response to

a change in the WACC must be asymmetric around the optimal level of the WACC (less being supplied when the WACC was set too low and more when it was too high), and also that the economic loss associated with the underinvested capital must be shown to exceed the economic loss associated with an equivalent overinvestment of capital.

441 Telstra accepted that there would be deadweight losses both in cases where the WACC is set too high and where it is set too low, but argued that this acceptance did not imply that the impacts associated with overestimation or underestimation of the WACC were symmetric, and that the impacts depended on the shape of the demand and cost functions. It contended that the deadweight loss associated with setting the WACC slightly too high was likely to be small compared to the deadweight loss from the contraction of output caused by the refusal to invest that might be prompted by setting a WACC that was below the actual cost of capital.

442 Telstra did not provide, other than by way of assertion, any support for the proposition that a WACC that was set below the true rate would lead to a decline in investment in the relevant assets. Whether such a result would occur would depend on the size of the error, as well as on the distribution of investors' perceptions of the true WACC value. It provided no evidence in respect of these matters and therefore we are not able to be satisfied of the extent of the consequences that it asserted would follow in the case of such estimating errors.

443 The Commission and Optus challenged Telstra's claim that there was an asymmetry in the social consequences in mis-estimating the WACC for the purposes of calculating the ULLS network costs and specific costs on the basis that the perceived return required by investors was uncertain and was distributed over a range, and that any reduction in output would be limited because investors would have different perceptions of the WACC. Telstra responded that the fact that investors had a distribution of views as to the correct WACC did not invalidate the conclusion that there would be less investment if the WACC were set too low. If prices were set below long-run efficient costs, investment by the access provider would fall below the efficient level because in a system based on voluntary supply, firms only supply when the expected price is at least equal to the expected cost.

444 Telstra provided no evidence or analysis of the economic losses associated with a too-high WACC or a too-low WACC to satisfy us that an upwardly-biased WACC would be

reasonable. It also provided no evidence to support the likelihood of the outcome said to follow from a too-low WACC value, nor of the time period over which such a socially damaging outcome might occur.

445 With regard to circumstances where a WACC was set too high, it is not immediately obvious to us that new entry and competition would be expected to occur so as to restore prices to acceptable levels. While competitive markets might be expected to ensure above-cost prices were not sustainable as a result of the prospect of new entry, regulated services are not provided in competitive markets. A key reason for regulating the provision of particular services is that they are provided in markets that tend to be in the nature of a natural monopoly. Prices need to be regulated in these markets because natural monopoly providers of services are less likely to be constrained by the threat of competitive entry if they seek to raise their prices above those levels necessary to recover their costs. Accordingly, given the cost structure likely to exist in relation to the provision of the ULLS (high fixed costs, low variable costs), it is not likely that if the regulator were to set too high a WACC that other firms would be able easily to enter such a market and restore prices to acceptable levels given the existence of an incumbent supplier of network services in this market. It is also important to realise that even if a market might remedy the situation caused by a too-high WACC, a regulator may also be capable of recognising in its next determination that it had erred if it set a WACC too low, and accordingly could allow a higher WACC value for the next regulatory period, or even allow for some recovery of past unrecognised or under-recovered costs.

446 Optus contended that as the undertakings were for a short term of three years, it was unreasonable to accept Professor Bowman's references to the long-term consequences of any underestimation or overestimation of the WACC. In a similar vein, the Commission contended that as the undertakings were short-term instruments, the WACC could be reset thereafter.

447 Telstra rejected these submissions, arguing that although the undertakings were for a relatively short term, Telstra and access seekers made investment decisions that had long-term implications and consequences and that to ignore the long-term nature of the ULLS network business would be a mistake and inconsistent with the statutory criteria.

448 The Commission submitted that there was no clear empirical evidence of the asymmetries contemplated by Professor Bowman as a matter of fact, such that one or the other was relatively more likely to promote the long-term interests of end-users.

449 We accept that it is possible that there may be asymmetric consequences associated with setting a WACC too high or too low. However, it is not clear to us that the asymmetry would always imply that overestimation of the WACC led to a lesser social cost than underestimation of the WACC. The nature of the asymmetric consequences of incorrectly setting a WACC is likely to depend on the circumstances of a given matter that may be before the Tribunal. Telstra and Professor Bowman submitted that the long-term social costs of underestimating the WACC would be greater than the long-term social costs of overestimating it in this particular instance, largely because in circumstances where the WACC was set too low, there was a risk that this would lead to the cessation of services, or a failure to develop services at a socially desirable rate. In order to convince us of this submission, however, it was incumbent upon Telstra to provide evidence that these circumstances actually existed or would exist in relation to the ULLS. Professor Bowman assumed that they did, but he did not provide any evidence or support for the proposition that this was, or would be, the case.

450 Telstra assumed that setting a WACC that was too low would deter investors. However, different investors will inevitably have different attitudes to risk. Setting the WACC below the true value may deter some investors and therefore result in less investment taking place in the short run, but it will not be likely to cause all investors to cease providing funds. Of course, the service provider might be forced to cut back on maintenance or service quality if it perceived the return on these investments to be too low, but no evidence was advanced by Telstra that consumers' valuations of different levels of quality was asymmetric. It is possible, at least in theory, that consumers might value lower quality, or less innovation, that might follow from less than efficient levels of investment no differently than they value the surplus lost from greater-than-efficient quality, or wasteful innovation, that could arise from too much investment.

451 The Commission argued that a firm faced with a WACC that had been set too low might choose to improve its efficiency rather than allow its service quality to downgrade.

This would effectively be an incentive-based response of the sort claimed by Telstra to come into force if the WACC value were to be set too high.

452 Telstra rejected this proposition, arguing that it was misconceived and lacked any academic or empirical support. It also argued that setting the WACC slightly too low could not be self-correcting as doing so deterred investment in competing facilities by both the access provider and potentially efficient access seekers.

453 Much of the capital invested in the ULLS network is sunk. Accordingly, Mr Ockerby argued that the effect of an additional return on capital in the regulated WACC would not affect the decision whether to invest, because this decision is irreversible, and that the only relevant risk to investment would be that which related to maintaining and incrementally expanding the existing network. From this he concluded that Telstra would not fail to maintain its CAN asset base because of a small error in the WACC, and that to do otherwise would put at risk billions of dollars of revenue.

454 In other words, if Telstra were to fail to reinvest in the CAN, it would suffer a large foregone revenue opportunity, a high opportunity cost of its failure to act. For Professor Bowman's analysis to be correct, it required the assumption that Telstra's costs of not investing due to a WACC that was set too low were zero. In Mr Ockerby's words, "in reality, the costs of not investing almost certainly exceed the costs of investing".

455 Once these costs of not investing are recognised, the asymmetric costs of regulatory error could well be reversed – setting the WACC too high would likely lead to greater social costs through higher prices for consumers, lost consumer surplus, and overinvestment, while the social costs of a too-low WACC would not be of major proportions.

456 It was also pointed out by Mr Ockerby that the WACC allowed for in the PIE II model was based on a hypothetical network investment that was continually re-estimated by such a forward-looking TSLRIC-based model. Thus, the hypothetical asset base to which the WACC was applied was independent of what Telstra actually invests. No evidence was offered by Telstra that the WACC value it sought would in fact directly lead to actual dollar-for-dollar new investment by it in the network used to provide its ULLS. Further, this actual expenditure by Telstra would represent only a very small proportion of that which was

modelled by a forward-looking model like PIE II, as a large amount of Telstra's ULLS network had already been sunk.

457 We accept that there exists as a matter of theory the potential for asymmetrical consequences should the WACC be set too low or too high. Which of these consequences will carry with it the greatest social damage is not a matter solely for theory, however, but for robust empirical examination, well-guided by theory, of the actual facts of any particular case. In the present matter, based on the material before us, we do not consider that it is possible to form a concluded view as to where, on balance, the greatest long run social damage would lie, when considering the impact of a WACC set too high compared with the impact of one set too low.

23.4 ALLOWING FOR THE ERROR IN ESTIMATING THE WACC

458 Even if we were minded to accept Telstra's arguments that the social costs of underestimating the WACC were so high relative to those of overestimating the WACC that an upward lift in the estimated WACC should be made to compensate for this error, the question would remain as to the method by which this compensatory adjustment should be estimated, and the way in which its quantum should be determined.

459 As a matter of principle, we do not necessarily disagree with the arguments put forward by Professor Bowman. As he acknowledged, "the 'true' WACC is not known; it can only be estimated on the basis of information available". However, he went on to state that:

> *"In my opinion, all regulatory WACCs should be determined with reference to the error involved in estimating the parameters and hence the WACC. Further, the regulatory WACCs should be set above the best estimates of WACC to reflect the asymmetry of the social consequences of errors in setting WACC.* ***This should be done as a matter of principle****."*
>
> (Emphasis added)

If the statistical estimating procedure is unbiased, then any resulting best estimate will be either right or wrong. There is no way to tell which outcome has occurred, and whether the estimate is too low or too high, as the true parameter is unknown. But the nature of the estimating process is that, on average, over the long run, the process will deliver the true value of the variable.

460 The problem, as we see it, is that little firm and testable evidence was provided to us as to whether the Commission has in the past set the WACC too high or too low. Importantly, we also lack convincing evidence as to how the principle of adjustment for asymmetry advocated by Professor Bowman should be applied. Professor Bowman was refreshingly candid on this latter issue. Thus, he said:

> *"164 In my opinion the best approach for the ACCC would be to first determine statistically valid ranges for the parameters considered in estimating WACC.* ***In my view the range interval should approximate one standard deviation of the distribution****. Although it would generally be necessary to make informed judgments as to the one standard deviation ranges, rather than precise measurements, the objective of the ranges should be clear. The ACCC could then simulate the likely one standard deviation range on WACC based on these parameters.*
>
> *165 The process of estimating WACC is full of estimation and uncertainty at every single step, including the very foundational principles and precepts. At least in principle, every parameter could have a distribution. There are also issues of uncertainty and estimation with respect to the CAPM [capital asset pricing model] and WACC models that are inducing estimation error. An additional allowance in WACC could be made for the models themselves."* (Emphasis added)

461 No further guidance was forthcoming from Professor Bowman that was of assistance to us in determining whether the particular approach advocated by Telstra to allow for asymmetric risks was reasonable. Professor Bowman admitted that he had not fully developed and defended the ranges for each of the parameters discussed in his report, and that what he had presented in his report were a discussion of all of the parameters and his "*preliminary* estimates of *appropriate ranges* to *reflect* one standard deviation." (Emphasis added). It was not surprising therefore that the Commission submitted that his range of parameter estimates were "undeveloped, subjective, and … unjustified".

462 Further, Professor Bowman stated that:

> *"Determining the range for my WACC estimates from the ranges for individual parameters has some complexities. Ideally the parameters and the ranges would be modeled using Monte Carlo simulations.* ***I have not conducted those simulations with … [my set of estimates] of parameter values and ranges****."*
>
> (Emphasis added)

The Commission submitted that its Monte Carlo analysis gave weight to a range of opinions (including Professor Bowman's) regarding various WACC parameter values, whereas Professor Bowman's method was highly subjective and assumed implicitly that he had correctly estimated the mean values of the component WACC parameters.

463 The Commission presented to us the outcomes of one set of its Monte Carlo simulations (calculated for a different set of undertakings lodged on 13 December 2004) and showed that all of Professor Bowman's WACC estimates were above the upper bound of the 95% confidence interval for the true WACC value, and, tellingly, his best WACC estimates with a one standard deviation uplift were substantially higher than this upper bound figure. While the Commission's analysis was for a different set of undertakings, it submitted that most of the input parameters would have changed little, if at all, and so the fact that Professor Bowman's current set of estimates were so high brought into serious question the reliability of his estimates.

464 Telstra accepted that "determination of an uplift from the estimate of WACC is a matter of judgement", but went on to say:

> *"However, the application of this judgment is not arbitrary. Rather, the basis for Professor Bowman's recommendations is that it will avoid the decision being arbitrary. Professor Bowman notes that* 'setting ranges to one standard deviation permits statements to be made about the confidence level of WACC*.' Furthermore, Professor Bowman states that adopting a one-standard deviation range provides* '83% confidence that the WACC was not going to lead to the adverse social consequences of economic inefficiency such as under provision of service, maintenance and investment*.' Placing the process in a statistical context, such as Professor Bowman suggests, provides structure and transparency and allows statements about the confidence that can be placed upon the resulting WACC".*
>
> (Telstra's emphasis)

465 We note that neither Professor Bowman nor any other evidence presented by Telstra provided any empirical economic analysis that demonstrated the economic loss associated with a WACC that was set too low, or, that the future loss expected to be associated with a too-low WACC would in fact be ameliorated by a WACC that was uplifted by one standard deviation beyond the best estimate determined by the Commission.

466 As a matter of statistical reality, the estimate of any parameter is subject to estimating error. But these errors may not always be present in estimating each component of the WACC, and the degree of error may differ greatly as between the estimates of each separate cost component. Optus submitted that a blanket one-standard deviation uplift to allow for the individual error involved in calculating each component parameter was arbitrary, in the absence of convincing evidence that an all-inclusive summary error calculation was justified. We agree with this submission. In our view, it would have been reasonable to consider each parameter estimate on its own, and argue for and adjust for any estimation error accordingly.

467 Professor Bowman based his assessment of asymmetry in terms of long-run consequences. As the Commission pointed out, such an asymmetry was not been proved as a fact by Professor Bowman, and the undertakings under consideration are short-term instruments after the expiry of which the WACC will be reset. A period as offered in the undertakings would not, in most circumstances, and certainly not for a long-lived asset like the CAN, be normally considered as representing the long run. Given an unbiased estimating procedure by the regulator, the WACC will on average be correctly estimated over time. In contrast, if the best point estimate of the WACC is systematically increased by some arbitrary amount like one standard deviation, then in the long run cost over-recovery will occur with all of its negative social consequences.

468 In this sense we regard an estimate of the true WACC value, if it has been arrived at through a statistically-unbiased estimating process, as representing a figure that, on average, in the long-run probabilistic sense in which all such estimates should be considered, would yield the true expected value of the variable in question. To add an amount artificially to such an estimate would in this correct statistical sense result in too high an estimate of the true average of the variable in question, in this case the WACC. We are not satisfied that such a procedure is, in any statistical or economic sense, reasonable in the present circumstances.

23.5 CONCLUSION ON A CORRECTION FOR WACC ASYMMETRY

469 The guarded language used by Professor Bowman suggests to us that caution is necessary in determining whether an allowance should be made for the asserted asymmetric consequences of estimation error in the course of measuring the WACC. Professor Bowman's estimated WACC values were the product of many caveats and

qualified assessments, and he essentially conceded that his work was what might be colloquially called an educated guess that was not the product of a rigorous statistical inquiry and measurement process, albeit his estimates being informed from many years of relevant experience. He performed no Monte Carlo that would provide us with some sort of statistical comfort that his best estimate of the WACC was statistically defensible.

470 Clearly, in any statistical estimating process for an unknown parameter, errors will exist. This applies for each of the many components of the WACC. In the absence of compelling economic and statistical evidence, we do not consider that it is reasonable to account for such errors using a single (and arbitrary) error calculation. In our opinion, the reasonable approach would be to consider the error involved in estimating each of the individual component parameters and from this derive a reasonable estimate of the range in which the true overall WACC value would be accepted to lie.

471 While Professor Bowman's indicated preference for adding one standard deviation to the best estimate of the WACC could be said by some to be conservative in allowing for estimation error and the asymmetric consequences of such error, Professor Bowman provided no empirical justification or support for his preferred approach, nor did he cite any literature that confirmed the acceptability or reasonableness of his advocacy for setting the WACC at a level one standard deviation above the Commission's best point estimate. To that extent we regard his report as lacking the convincing demonstration necessary to satisfy us that his method was reasonable in the current circumstances.

472 This is not to say that we reject the possibility that the approach advocated by Professor Bowman might be able usefully to inform the Tribunal in the future on the procedures necessary to provide a commercially, and socially, realistic estimated WACC value. But a more robust demonstration in terms of empirical justification and acceptability both commercially and in terms of rigorous academic support would be necessary. In the present matter, such a demonstration has not occurred and therefore we cannot be satisfied that the process advocated by Telstra to compensate for asymmetric errors (if they do in fact exist) in estimating WACC values is reasonable.

473 Because we have found against Telstra on issues of principle with respect to the two disputed matters in relation to the WACC, it is unnecessary for us to consider the submissions

relating to the measurement of the values of each of the specific components of the WACC. Before doing this, we would need to have been satisfied at a higher level that the overriding principles used to arrive at these empirical estimates were reasonable, and that the process was therefore capable of producing commercially reasonable values for the WACC. We have not been able to reach that level of satisfaction.

24. CONCLUSION

474 We have found and determined, having regard to the matters set out in s 152AH and the objectives in s 152AB, that we are not satisfied that:

- the averaged charge for access to the ULLS of $30 per line per month in the undertakings is reasonable;
- the Network Modernisation Provisions in the undertakings are reasonable;
- Telstra's estimated network costs set out in par [59] represent a reasonable estimate of its projected network costs for the periods covered by the undertakings;
- Telstra's allocation of its ULLS specific costs across ULLS lines only is reasonable with the consequence that we are not satisfied that Telstra's estimates of its ULLS specific costs set out in par [59] are reasonable;
- the use by Telstra of two WACCs, one for the assets in the CAN, and one for the ULLS specific assets, is reasonable; and
- the calculation and estimate of the WACC by the addition of an amount equal to one standard deviation in order to allow for the alleged asymmetry and the social consequences of errors made in estimating the WACC, for the purpose of determining and estimating Telstra's specific ULLS costs, is reasonable.

475 It follows, therefore, that we are not satisfied that the terms and conditions specified in the undertakings in the respects to which we have referred are reasonable. The consequence is that we must not accept the undertakings. The decision of the Commission on 25 August 2006 rejecting the two undertakings given to it by Telstra on 23 December 2005 is affirmed.

I certify that the preceding four hundred and

seventy-five (475) numbered paragraphs are a true copy of the Decision herein of Justice Goldberg (President), Mr R Davey & Professor D Round.

Associate:

Dated: 17 May 2007

Counsel for Telstra Corporation Ltd:	Mr A Archibald QC, Dr J Griffiths S.C. and Mr M Connock
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Date of Hearing:	4-8, 11-14 December 2006
Date of Decision:	17 May 2007

GLOSSARY AND ABBREVIATIONS

ADSL	Asymmetric digital subscriber line
CAN	Customer Access Network
CAPM	Capital asset pricing model
CBD	Central business district
CMUX	Customer multiplexer
COLR	Carrier of last resort
DSLAM	Digital subscriber line access multiplexer
FTTN	Fibre-to-the-node
HSDPA	High Speed Down Link Packet Access
IEN	Inter-Exchange Network
IES	Information Equivalence Strategy
IRIM	Integrated – Remote Integrated Multiplexer (RIM)
LCS	Local Carriage Service
LSS	Line Sharing Service
O&M	Operational and Maintenance
OSP	Operational Separation Plan
OTA	Originating and Terminating access
POI	Point of Interconnection
PSTN	Public switched telephone network
PSTN OTA	PSTN originating and terminating access
RAF	Regulatory Accounting Framework
RKR	Record Keeping Rules
RIM	Remote Integrated Multiplexer
RPPO	Retail price parity obligation
RSS	Remote Subscriber Stage

RSU	Remote Subscriber Unit
SAO	Standard access obligation
SIO	Services in operation
SSS	Spectrum Sharing Service
STS	Standard Telephone Services
TCAM	Telstra Customer Access Module
TELRIC	Total Element Long-Run Incremental Cost
TSLRIC	Total Service Long-Run Incremental Cost
ULLS	Unconditioned Local Loop Service
USF	Universal Service Fund
USO	Universal Service Obligation
WACC	Weighted average cost of capital
WLR	Wholesale line rental