

AUSTRALIAN COMPETITION TRIBUNAL

Telstra Corporation Limited (ACN 051 775 556)

[2006] ACompT 4

TRADE PRACTICES – telecommunications access regime – application for review of decision of Australian Competition and Consumer Commission to reject access undertaking – line sharing service – whether monthly charge is reasonable – whether it promotes the long-term interests of end-users — whether it promotes competition in markets for listed services – efficiency of capital costs – allocation of costs – levelisation of costs

PRACTICE AND PROCEDURE – review function of Tribunal – whether parties limited to submissions made before the Australian Competition and Consumer Commission

Trade Practices Act 1974 (Cth): Pt XIC, ss 152AB, 152AH, 152AL, 152AR, 152BS, 152BU, 152BV, 152CE, 152CF, 152CGB

Telecommunications Act 1997 (Cth): s 7

Application by GasNet Australia (Operations) Pty Ltd (2004) ATPR 41-978, applied
The Queen v Hunt; Ex parte Sean Investments Pty Ltd (1979) 180 CLR 322, applied

No 1 of 2006

RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED DECEMBER 2005 PURSUANT TO SECTION 152BU IN RESPECT OF AN ORDINARY ACCESS UNDERTAKING SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE LINE SHARING SERVICE

BY: TELSTRA CORPORATION LIMITED (ACN 051 775 556)

Applicant

GOLDBERG J (President), MR ROBIN DAVEY & PROFESSOR DAVID ROUND
2 JUNE 2006
MELBOURNE

IN THE AUSTRALIAN COMPETITION TRIBUNAL

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**THE TRIBUNAL: GOLDBERG J (President)
MR ROBIN DAVEY &
PROFESSOR DAVID ROUND**

DATE OF DETERMINATION: 2 JUNE 2006

WHERE MADE: MELBOURNE

THE TRIBUNAL DETERMINES THAT:

1. The decision of the Australian Competition and Consumer Commission (“the Commission”) on 21 December 2005 rejecting the access undertaking given by Telstra Corporation Limited to the Commission on 13 December 2004 is affirmed.

IN THE AUSTRALIAN COMPETITION TRIBUNAL

No 1 of 2006

RE: FINAL DECISION BY THE AUSTRALIAN COMPETITION AND CONSUMER COMMISSION DATED DECEMBER 2005 PURSUANT TO SECTION 152BU IN RESPECT OF AN ORDINARY ACCESS UNDERTAKING SUBMITTED BY TELSTRA CORPORATION LIMITED FOR THE LINE SHARING SERVICE

BY: TELSTRA CORPORATION LIMITED (ACN 051 775 556)

Applicant

**THE TRIBUNAL: GOLDBERG J (President)
MR ROBIN DAVEY &
PROFESSOR DAVID ROUND**

DATE: 2 JUNE 2006

PLACE: MELBOURNE

REASONS FOR DETERMINATION

- 1 This is an application by Telstra Corporation Limited (“Telstra”) pursuant to s 152CE(1) of the *Trade Practices Act 1974* (Cth) (“the Act”) for the review of a decision of the Australian Competition and Consumer Commission (“Commission”) to reject an access undertaking under s 152BU(2) of the Act.

- 2 The access undertaking sets out the price and non-price terms and conditions upon which Telstra undertakes to provide a line sharing service (“LSS”), a service that was declared by the Commission under Pt XIC of the Act. The access undertaking was submitted by Telstra on 13 December 2004. The Commission rejected the access undertaking in its final decision made on 21 December 2005, primarily on the basis that the monthly rental charge of \$9.00 for each LSS proposed by Telstra (the “\$9.00 monthly charge”) was not reasonable. The application for review was filed by Telstra on 11 January 2006. The principal issue before us is whether the \$9.00 monthly charge is reasonable having regard to certain statutory matters to which we shall refer. A glossary of terms used in these reasons is attached as Annexure A.

PARTIES TO THE APPLICATION

3 The following parties were granted leave to intervene in the proceeding:

- the Commission;
- Optus Networks Pty Limited and XYZed Pty Limited (“Optus”);
- AAPT Ltd (“AAPT”);
- Macquarie Telecom Pty Ltd (“Macquarie”);
- PowerTel Limited (“PowerTel”); and
- Primus Telecommunications Pty Ltd (“Primus”).

(Macquarie, PowerTel and Primus jointly filed written contentions and submissions but did not appear at the hearing).

4 Given that PowerTel and Primus currently acquire the LSS from Telstra, it is clear that those parties’ interests are affected by the decision of the Commission to reject the undertaking. Although Optus, AAPT and Macquarie do not presently acquire the LSS we were satisfied that as potential acquirers of the service, those parties’ interests are affected by the Commission’s decision.

THE LEGISLATIVE REGIME

5 Part XIC of the Act sets out a telecommunications access regime. The object of the Part is to promote the long-term interests of end-users of carriage services or of services provided by means of carriage services: s 152AB(1). A carriage service is defined in s 7 of the *Telecommunications Act 1997* (Cth) as meaning “a service for carrying communications by means of guided and/or unguided electromagnetic energy”. A service can be declared under s 152AL of the Act if, after following a specific procedure, the Commission 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. Once a service is declared, an access provider (which is the carrier or provider) must, if requested, supply the service to a service provider in accordance with the standard access obligations set out in s 152AR of the Act which include, in particular, supplying an active declared service to the service provider so that it can provide carriage services and/or content services.

- 6 The carrier or carriage service provider may submit an ordinary access undertaking to the Commission under which the carrier or provider undertakes to comply with the terms and conditions specified in the access undertaking in relation to the applicable standard access obligations: s 152BS(1). If the terms and conditions are specified in writing in the undertaking, the undertaking must specify the expiry time of the undertaking: s 152BS(7).
- 7 The acceptance and coming into operation of an access undertaking is significant because it has an impact upon the extent to which the Commission may determine an access dispute between an access seeker and a carrier or provider in accordance with the procedure set out in Div 8 of Pt XIC of the Act. Section 152CGB provides that a determination made by the Commission in respect of an access dispute under Div 8 has no effect to the extent to which it is inconsistent with an access undertaking that is in operation.
- 8 The Commission must accept or reject the undertaking (s 152BU(2)), but it must not accept the undertaking unless it is affirmatively satisfied that, *inter alia*, the undertaking is consistent with the applicable standard access obligations and that the terms and conditions specified in the undertaking are reasonable (s 152BV(2)(b) and (d)). The same dictate applies to the Tribunal when reviewing a decision of the Commission (s 152CF(1)).
- 9 Section 152AH(1) sets out the matters to which regard must be had by the Commission (and by the Tribunal on review) in determining whether particular terms and conditions 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 subs (1) does not, by implication, limit the matters to which regard may be had.

- 10 Section 152AB(2) provides that in determining whether a particular thing promotes 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 thing is 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 subs (2) is intended to limit the matters to which regard may be had.

- 11 In determining whether a particular thing is likely to result in the achievement of the objective of promoting competition in markets for listed services, regard must be had by the Commission (and by the Tribunal on review) to the extent to which the thing will remove obstacles to end-users of listed services gaining access to listed services: s 152AB(4). Subsection 152AB(4) does not, by implication, limit the matters to which regard may be had: s 152AB(5).

- 12 In determining whether a particular thing is likely to result in the achievement of the objective in s 152AB(2)(e), namely encouraging the economically efficient use of and investment in infrastructure, pursuant to s 152AB(6) regard must be had by the Commission (and by the Tribunal on review) to:

- “(a) *whether it is, or likely to become, technically feasible for the services to be supplied and charged for, having regard to:*

- (i) *the technology that is in use, available or likely to become available; and*
 - (ii) *whether the costs that would be involved in supplying, and charging for, the services are reasonable or likely to become reasonable; and*
 - (iii) *the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks;*
- (b) *the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale or scope;*
- (c) *the incentives for investment in:*
- (i) *the infrastructure by which the services are supplied; and*
 - (ii) *any other infrastructure by which the services are, or are likely to become, capable of being supplied.”*

Section 152AB(7) provides that s 152AB(6) does not limit the matters to which regard may be had. Section 152AB(7A) provides that for the purposes of determining incentives for investment, regard must be had to the risks involved in making the investment.

13 Section 152AB(8) provides, in relation to any-to-any connectivity, that:

“... the objective of any-to-any connectivity is achieved if, and only if, each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, with each other end-user who is supplied with the same service or a similar service, whether or not the end-users are connected to the same telecommunications network.”

14 This application for review is made pursuant to s 152CE(1) which provides that a person whose interests are affected by a decision of the Commission under, *inter alia*, s 152BU(2) may apply in writing to the Tribunal for a review of the decision. The functions and powers of the Tribunal are set out in s 152CF which provides relevantly:

“(1) On a review of a decision of the Commission under subsection 152BU(2) ... the Tribunal may make a decision:

- (a) *in any case – affirming the Commission’s decision; or*
...
- (c) *in the case of a review of a decision of the Commission under subsection 152BU(2) or 152CBC(2) to reject an undertaking – both:*
 - (i) *setting aside the Commission’s decision; and*

(ii) *in substitution for the decision so set aside, to accept the undertaking*

...
and, for the purposes of the review, the Tribunal may perform all the functions and exercise all the powers of the Commission.”

15 A decision by the Tribunal is taken, for the purposes of the Act, to be a decision of the Commission: s 152CF(2). Pursuant to s 152CF(4), the Tribunal may only have regard to:

“(a) *any information given, documents produced or evidence given to the Commission in connection with the making of the decision to which the review relates; and*

(b) *any other information that was referred to in the Commission’s reasons for making the decision to which the review relates.”*

16 Accordingly, the function of the Tribunal is to review the matter on the merits, standing in the shoes of the Commission, but only on the basis of the information, documents and evidence before the Commission. The Tribunal’s role is not to identify any error in the Commission’s decision, but rather to consider the matter afresh.

SCOPE OF THE SUBMISSIONS

17 An issue arose whether the parties were limited to submissions made before the Commission, or whether they could raise new submissions and contentions in respect of which Telstra claimed it had not had the opportunity to present material in support of its position before the Commission. Telstra’s objection related to the following submissions:

- (a) its capital expenditure costs had not been demonstrated to be efficient costs;
- (b) capital costs should be depreciated using a straight line approach and not a tilted annuity formula;
- (c) in the tilted annuity formula, the appropriate annual change in the replacement cost of Telstra’s assets should be positive (rather than a negative percentage, as contended by Telstra) because it should reflect labour price trends which increase over time;
- (d) Telstra did not establish that its forecasts of front of house and product management costs were required to be incurred and had not been recouped from other charges;

- (e) Optus has previously paid a certain rate per km for duct sharing while the PSTN Ingress Egress II (“PIE II”) model assumes that Telstra recovers a lesser amount per km;
- (f) the PIE II model uses inefficient equipment costs as inputs to the model;
- (g) the asset lives of a number of asset categories are underestimated in the PIE II model;
- (h) the PIE II model approach is not reasonable.

18 Telstra contended that it would amount to a denial of procedural fairness and natural justice if we were to consider new submissions or contentions, which had not been advanced before the Commission, in respect of which Telstra might have been able or taken the opportunity to have presented additional material to support its position, if those submissions and contentions had been made earlier. Telstra contended that the effect of making or advancing new contentions or submissions was that any material it might have available to respond to such submissions and contentions was excluded from consideration by the Tribunal by virtue of the provisions of s 152CF(4) of the Act because that material had not been before the Commission at the time of its consideration.

19 The difficulty with Telstra’s submission is that it is not supported by the statutory language which delineates and defines the Commission’s and the Tribunal’s powers. Under s 152CF(1) the Tribunal may perform all the functions and exercise all the powers of the Commission and its decision is taken, for the purposes of the Act, to be a decision of the Commission. Subsection (4) of s 152CF limits the material to which the Tribunal may have regard and although information given, documents produced, and evidence given to the Commission is specifically identified as the material before the Commission to which the Tribunal may only have regard, there is no statutory limitation on the nature or extent of the submissions or contentions which may be advanced before the Tribunal.

20 Telstra was well aware that the statutory scheme required the Commission (and on review the Tribunal) to be satisfied affirmatively of the reasonableness of the terms and conditions of the access undertaking proffered by Telstra before it could approve the access undertaking. Not only was Telstra aware of the fact that it bore this onus of affirmatively proving the reasonableness of the terms and conditions of the undertaking, it was also aware of the fact that if it received an adverse result from the Commission and wished to have the Tribunal

review the decision of the Commission, then it was limited in the material which it could place before the Tribunal in accordance with s 152CF(4) of the Act.

21 We accept that the Tribunal is bound to provide procedural fairness and natural justice to Telstra in the conduct of the review. However, it would severely curtail the function and power of the Tribunal if it was limited only to considering submissions and contentions which had been advanced before the Commission. We do not consider that any such limitation is found in the statutory scheme setting out the review process before the Tribunal. In the events which have occurred, the outcome of this review does not depend upon the submissions to which Telstra objected.

THE LINE SHARING SERVICE

22 It is useful to explain in basic terms the elements of the LSS and a fixed-line telecommunications network. The LSS that is the subject of this determination is provided using Telstra's public switched telephone network ("PSTN"). The PSTN refers to the copper-based network that connects, and therefore services, a large number of users throughout Australia (the approximate number of users was provided in confidence), and can be used to provide a variety of telecommunications services (including traditional voice and data services).

23 The PSTN consists of an Inter-Exchange Network ("IEN") and a Customer Access network ("CAN"). The IEN connects exchanges to each other. The CAN connects a customer's equipment to an exchange. This is usually done by way of a pair of twisted copper lines that run between the first socket or the main distribution frame in the customer's premises and the exchange.

24 Using digital subscriber line ("DSL") services technology, each line within the CAN is able to provide a combination of voiceband PSTN services over the low frequency portion of the line, and high-speed data services over the high frequency portion of the line. An example of a high-speed data service is broadband internet access using asymmetric digital subscriber line ("ADSL") technology. This type of service uses a dedicated line from the customer's premises to a network exchange and can be used to provide an 'always on' data service. The reference to 'asymmetric' is a reference to the differential in speed between downstream

access and upstream access. With ADSL technology, a customer is able to download data faster than it is able to upload (or send) it.

- 25 A useful description of “line sharing” is found in the Commission’s final decision on the declaration of the LSS:

“Line sharing refers to a situation where two separate carriers provide separate services over a single metallic pair (or ‘line’). A metallic pair is capable of providing a broad range of services by utilising the full spectrum of the line. Traditionally, only 3.1 kHz, which is a relatively small part of the useable spectrum of a metallic pair of several MHz over a distance of up to 3.5 km is used to provide voice services. Until recently, the rest of the spectrum remained unused. With the development of xDSL technology, however, the remaining part of the spectrum can be used to provide a variety of broadband services. This allows a combination of low-speed and high-speed services to be provided on a single line at the same time. Under line sharing, the metallic line is normally split (or shared) in a spectral sense so that one carrier or service provider provides the voice services over the line in question, while another carrier provides high-speed data services through the use of its own xDSL technology.” (footnotes omitted)

Availability of line sharing is limited in the sense that the service can only be provided to retail customers whose residences or places of business are within a certain distance from a Telstra exchange. As at August 2002, the distance was 3.5 km.

- 26 The Commission declared a particular form of line sharing (also referred to as the high frequency unconditioned local loop service) on 30 August 2002 pursuant to s 152AL of the Act. The declared service is described in the declaration in the following terms:

“The High Frequency Unconditioned Local Loop Service is the use of the non-voiceband frequency spectrum of unconditioned communications wire (over which wire an underlying voiceband PSTN service is operating) 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.”

While a number of different forms of line sharing are possible, under the service described by the Commission in its LSS declaration, the LSS involves an access provider supplying a PSTN voice service, while an access seeker provides a different service (usually broadband internet access) over a higher frequency part of the line.

27 In its undertaking Telstra describes the service the subject of the undertaking as a wholesale spectrum sharing service (“SSS”), which it defines as:

“...a service for the provision of access to the non-voice ADSL frequency spectrum (in accordance with the Telstra Splitter Specification) of a continuous metallic twisted pair between the SSS Boundary at the SSS End Customer Premises and a SSS POI associated with the TCAM serving that SSS End Customer that Telstra is currently using to provide an active PSTS voice service.”

Spectrum sharing is another term for line sharing.

28 The unconditioned local loop service (“ULLS”) (also a declared service) enables an access seeker to obtain access to the full spectrum (including both low and high frequency) of a line connecting a customer’s premises to the end-user side of the exchange. The access seeker deploys its own equipment in exchanges to provide services to its customers. Access to the ULLS enables the access seeker to provide, if it chooses, a range of services, including both traditional voice services and high-speed data services (such as internet access) to its end-users.

29 Retail services provided to end-users using DSL technologies are sometimes referred to as retail DSL services. Carriers or service providers that provide retail DSL services to end-users can do so in a variety of different ways. A carrier can provide a full end-to-end service using only that infrastructure that it has deployed. This is the method used by Telstra. Alternatively, a carrier can purchase wholesale access to a variety of different services that can be combined with the carrier’s own infrastructure to provide retail DSL services. The ULLS and the LSS represent two such access services that carriers can use to provide retail DSL services. Under each of these options, the access seeker installs its own equipment at relevant exchanges of the access provider in order to obtain access to a line (or part of it) to provide retail services to end-users. A further option is for an access seeker to purchase what is referred to as a wholesale DSL service from a carrier. This is a bundled service that comprises access to a line connected to an end-user’s premises as well as the use of additional equipment at the access provider’s exchange.

DECLARATION OF THE LSS

30 As noted earlier, the LSS was declared by the Commission pursuant to s 152AL of the Act on 30 August 2002. The declaration came about as a result of an announcement by the

Commission on 21 September 2001 that it would conduct an inquiry into whether or not a line sharing service should be declared under Pt XIC of the Act. On 19 April 2002, the Commission issued a draft decision to declare a LSS. At that stage Telstra had indicated it was likely to begin providing a LSS from 1 July 2002. Notwithstanding this, the Commission indicated it held concerns about the competitive structure of the market. On 1 July 2002 Telstra launched a commercial LSS offering. At the time of the declaration the Commission was aware of one access seeker that was receiving the service and at least three other access seekers who had signed agreements to take the service. Integral to the decision to declare the LSS was the fact that the Commission was satisfied that the making of the declaration would promote the long-term interests of end-users of carriage services. The fact of declaration of the LSS created a requirement for Telstra to provide a LSS, upon request, to access seekers. This obligation is found in s 152AR(3) of the Act which provides that:

“An access provider must, if requested to do so by a service provider:

- (a) supply an active declared service to the service provider in order that the service provider can provide carriage services and/or content services; and*
 - (b) take all reasonable steps to ensure the technical and operational quality of the active declared service supplied to the service provider is equivalent to that which the access provider provides to itself; and*
- ...”*

Accordingly, Telstra had to be ready, after declaration, to supply the LSS if requested by an access seeker.

31 The Commission concluded that declaration of the LSS could serve the long-term interests of end-users in two ways. The Commission said:

“First, it can ensure access to bottleneck inputs is granted where the incumbent would otherwise deny it. Secondly, even where access is offered, declaration can better ensure that access is given on reasonable terms by, amongst other things, providing a right to arbitration of access disputes.”

32 The Commission also concluded in the declaration:

“To the extent that declaration can help ensure more competitive terms and conditions are being set for a LSS, the Commission believes this has the potential to preserve competition in the downstream markets for high-speed data services, as it will help enable access seekers to compete with Telstra in downstream markets on a more even footing.”

THE COMMISSION'S REASONS FOR REJECTING THE ACCESS UNDERTAKING

- 33 Although it is not a part of our task to determine if there were errors in the Commission's decision to reject Telstra's access undertaking, it is helpful to summarise briefly the Commission's principal reasons for its decision to reject the undertaking, as some of those reasons provided the context against which the submissions made on the review can be understood.
- 34 The Commission rejected the access undertaking because it was not satisfied that the \$9.00 monthly charge was reasonable. Of particular relevance to our determination, the Commission was concerned that Telstra had sought to recover its estimated costs of providing the LSS from LSS lines only. In support of its undertaking, Telstra had sought to model what it claimed to be the efficient costs of providing access to the LSS. As described in further detail in pars [54] to [61] below, this involved estimating the capital costs and operational and maintenance (both direct and indirect) costs ("O&M costs") of providing the LSS. The capital costs were estimated on the basis of those either incurred (or expected to be incurred) in each of the five financial years from 2001/2002 to 2005/2006 (inclusive). Once these costs had been estimated, Telstra then sought to determine an appropriate amount that should be recovered in each of the four financial years from 2002/2003 to 2005/2006 (inclusive). It did this by way of a series of mathematical formulae. The O&M costs were then determined for each of the four financial years from 2002/2003 to 2005/2006 (inclusive). Once Telstra had determined the total annual costs for these periods, it then sought to recover these costs by spreading them across demand (actual or forecast) for the LSS during the same four periods. In order to ensure a constant per unit cost was calculated for each of these four periods, Telstra then undertook the additional step of 'levelising' the per unit cost of providing the service in these periods.
- 35 In contrast to Telstra, the Commission considered that there were compelling arguments by reference to the statutory matters to spread these costs across a broader range of services. In this regard, the Commission considered a number of options but did not come to a definitive view on which of these options would be more appropriate. It did indicate it "would be preferable to move to a broader cost recovery base and spread the costs across a broad range of users, including Telstra customers." The effect of spreading costs over a broader range of services would be to reduce the amount of costs that would need to be recovered by way of

the per unit charge for the LSS. In this regard, the Commission found that “if the decision is made to spread combined ULLS and LSS-specific costs across all CAN lines, all xDSL lines or some amount in-between, the cost claim made by Telstra will be unreasonable.” It should be noted that xDSL refers to the family of DSL services, including ADSL.

36 Also of relevance to our determination, the Commission was concerned that Telstra sought to levelise its costs over too short a period. The Commission considered that Telstra should have sought to levelise its costs over Telstra’s suggested project life of the LSS of five years, commencing in the year when the first LSS line was sold (2002/2003) and ending in 2006/2007. As noted above, Telstra had sought to levelise costs only over the four-year period from 2002/2003 to 2005/2006, that being the end of the period of the access undertaking. Given expected growth in demand for the LSS, extending the period over which LSS costs were levelised would have the effect of reducing Telstra’s estimated per unit cost of supplying the LSS.

37 In rejecting the undertaking, the Commission also reached a number of other conclusions which can be summarised briefly:

- Telstra’s proposed charges for its LSS-specific costs would be unreasonably high having regard to Telstra’s revised demand estimates;
- although Telstra had not included a claim for an access deficit contribution (“ADC”), Telstra had reserved the right to do so at a later stage. The Commission considered that prices imposing an ADC component would not be consistent with the relevant statutory matters and would therefore be rejected if Telstra made a claim in this regard;
- Telstra had reserved the right to include a claim for an IEN cost component in the LSS charge. The Commission considered that a charge designed to recover an IEN cost component would not be consistent with the relevant statutory matters and would therefore be rejected if Telstra made a claim in this regard;
- the recovery of line-related costs in the LSS monthly charge at that stage was inconsistent with the relevant statutory matters given current charges for other services provided by Telstra over the CAN.

WHETHER TELSTRA'S COSTS OF SUPPLYING THE LSS ARE EFFICIENT

38 Telstra had set its \$9.00 monthly charge for the LSS on the basis that the charge was reasonable. Telstra contended that its price terms and conditions in the undertaking were reasonable so long as the price did not exceed the efficient costs of supply of the LSS, and that its efficient monthly costs of supplying the LSS in the years 2004/2005 and 2005/2006 were as follows:

	2004/2005	2005/2006
LSS specific costs (\$)	\$10.98	\$10.98
Shared Network Costs (\$)	\$0.77	\$0.77
Total (\$)	\$11.75	\$11.75

39 Telstra contended that its LSS-specific costs should be estimated by reference to a specific costs model (the "SC Model") which it had prepared and which it said provided reasonable estimates of the efficient cost of supplying the LSS. Telstra relied on the evidence of Mr Andrew Briggs that the costs in the SC Model consisted of:

- (a) capital costs, which are the incremental costs of systems for qualifying and ordering the LSS;
- (b) O&M costs, which are the O&M costs associated with LSS capital expenditure, additional labour for front of house service operations, and the cost of wholesale product management;
- (c) indirect O&M costs which are the indirect O&M costs associated with the front of house connection group and wholesale product management.

Mr Briggs said that the LSS-specific costs were directly attributable to the LSS and were not shared with any other Telstra services, but he did not provide any evidence to the effect that these costs were efficient costs, nor did he proffer any basis upon which it could be inferred that such costs were efficient costs. Telstra contended that in its consideration of the access undertaking, the Commission had not questioned or queried these costs, nor was Telstra aware of any submission from any other party criticising these costs. Telstra submitted that had such criticisms been made, Telstra could have, and would have, presented additional evidence in support of the costs, in particular lay evidence as to what was done precisely and expert evidence as to the appropriateness of the expenditure. The Commission's submission,

to which Telstra objected before us, was that there was no evidence that would show that the actual costs incurred were efficient forward-looking costs in accordance with the total service long-run incremental cost (“TSLRIC”) methodology.

40 Telstra maintained that when the Commission was seized of the matter it did not indicate to Telstra that before the Commission would be satisfied of the efficiency of Telstra’s LSS capital costs, a proper examination of those costs was required. Telstra contended that the Commission had proceeded upon the basis, and had represented to Telstra, that it would assume that the claimed capital costs were appropriate.

41 Telstra relied upon the decision of the Commission on an earlier access undertaking in relation to the LSS in August 2004 in which the Commission noted that it had not conducted a separate audit of the proposed LSS-specific costs. The Commission said that if it were satisfied that all other aspects of Telstra’s proposed access price were reasonable it would have likely conducted such an audit to establish the appropriate efficient forward-looking estimate, but that it had, in the first instance, considered the reasonableness of the access price based on the assumption that the proposed LSS-specific capital costs were appropriate. As the Commission formed the view that the proposed price was unreasonable, the Commission said it had been unnecessary to conduct an audit to consider whether the LSS-specific costs proposed by Telstra were appropriate.

42 When the Commission came to consider the access undertaking under present consideration, it noted in its discussion paper published in March 2005 that it was using the opportunity of the discussion paper:

“to focus attention on new issues and, where previous aspects of the Undertakings have been raised with no new or compelling argument, parties are referred to the Commission’s previous work or views on these. [The Commission referred in a footnote to its August 2004 final report in relation to the earlier LSS undertaking.] It is intended that this will facilitate the Commission’s consideration to either reject or accept the Undertakings.”

43 Telstra relied upon these passages as demonstrating that the Commission was taking the stand that it would assume that the claimed capital expenditure was appropriate. It does not appear that the Commission invited comment on the efficiency of the claimed capital costs nor did it

in its draft decision refer to any issue relating to the efficiency, or otherwise, of the capital expenditure.

44 In substance, Telstra had set out before the Commission, and explained, its historic costs and the question arises whether it should be inferred that those costs are efficient costs. There was no evidence before the Tribunal that Telstra's costs were efficient costs. The Commission had concluded that the costs should be analysed on a "TSLRIC+" basis, that is to say total service long-run incremental costs plus a contribution towards the recovery of indirect and common costs. It is fair to say that in its final decision in relation to the access undertaking, the Commission left open the issue of whether Telstra's costs were efficient as it was not necessary for it to reach a conclusion on this issue, having regard to its other findings.

45 It is arguable that Telstra was lulled into a false sense of security by the Commission not dealing specifically with the issue of whether Telstra's costs were efficient. Nevertheless, it is clear from Telstra's application for review that it was aware that the issue would be canvassed in this proceeding, even prior to the parties raising it before the Tribunal. In par 33(e) of its application Telstra contended that one of the issues to be determined before the Tribunal was:

"whether estimates of efficient costs should be based on the costs incurred by Telstra in providing LSS, as set out in paragraph 25(a), or some other costs."

46 Having regard to the conclusions which we have reached it is not necessary to determine whether Telstra's costs were established as efficient costs. However, we would point out that whenever an access provider seeks approval of an access undertaking from the Commission which involves a consideration of a price term by comparing it with costs, it would be necessary, in order to satisfy the statutory framework, that the access provider establish that its costs are efficient costs. An access provider should also recognise that if the Commission decides against accepting the access undertaking and rejects it and the provider wishes to seek review of the Commission's decision before the Tribunal, it would be necessary to establish before the Tribunal that its costs are efficient. It is apparent from the statutory framework that the Tribunal is limited in respect of the material to which it may give consideration as it is limited to the material which was before the Commission and any material referred to in the Commission's decision. Put shortly, if an access provider wishes

to establish before the Commission, or needs to establish before the Tribunal, that its costs are efficient, it will need to have put material to that effect before the Commission.

TELSTRA'S SUBMISSIONS

47 Telstra contended that its SC Model provided reasonable estimates of the efficient LSS-specific costs because it:

- (a) estimated efficient costs based on the costs incurred by Telstra in providing the LSS, which costs are set out in Confidential Annexure B to these reasons;
- (b) assumed the rate of connections per staff per day in calculating the costs of front of house service operations as set out in Confidential Annexure B;
- (c) assumed wholesale product management costs comprising the annual costs of one product manager of an amount set out in Confidential Annexure B;
- (d) assumed indirect operational and maintenance expenditures were a percentage of direct operational and maintenance costs as set out in Confidential Annexure B;
- (e) used a tilted annuity formula to calculate an implied revenue stream which formula was described. The formula converted capital expenditure to an annual charge to ensure both a return on capital and a return of capital. This formula was challenged as to its methodology and its inputs. Telstra acknowledged the existence of several errors in the inputs but did not agree that the methodology was incorrect. It provided a later formula which was still challenged by the Commission;
- (f) used the weighted average cost of capital ("WACC") set out in Confidential Annexure B which it contended was an appropriate WACC for the reasons set out in the reports of Professor Robert Bowman dated 26 May 2005 and September 2005;
- (g) used average year-end demand estimates based on average demand estimates set out in Confidential Annexure B;
- (h) while annualising (and thus recovering) costs over five years, levelised the LSS-specific costs over the four-year period 2002/2003 to 2005/2006 to ensure that the charge was the same over those years.

Telstra also contended that the specific costs incurred in providing the LSS should only be allocated across, and recovered from, LSS lines, and not be allocated across and recovered from a broader range of services.

48 The Commission challenged the reliability of Telstra's SC Model by identifying a number of errors in the formulae used in it and the calculations carried out in it. Telstra acknowledged most of these errors and sought to rectify them by what it called "adjustment" or changes. Telstra not only changed inputs in the formulae in the SC Model but also altered some of the underlying assumptions in the Model. The result was that it increased its LSS-specific per unit cost estimate from \$10.98 a month to \$12.49 a month.

49 The issue arose whether the provisions of s 152CF(4) (par [15] above) allowed us to have regard to Telstra's SC Model as so adjusted and changed. The information and evidence given to the Commission was that Telstra's monthly LSS-specific costs for 2004/2005 and 2005/2006 were \$10.98. We consider that we are required to proceed on that basis for the purposes of this review. Whether the SC Model was calibrated correctly or not does not affect the outcome of the review as we are not satisfied that the methodology by which Telstra derived the \$9.00 monthly charge is reasonable having regard to the matters in s 152AH and the objectives set out in s 152AB(2) and therefore we cannot be satisfied that the charge itself is reasonable.

50 As may be seen by reference to par [38] above Telstra divided its costs of supplying its LSS into two categories, namely LSS-specific costs and shared network costs. It contended that:

- (a) the LSS monthly charge should include a component of shared network costs;
- (b) its network costs should be estimated by reference to a model that provided reasonable estimates of the efficient costs of the CAN;
- (c) a model called the PIE II was such a model;
- (d) the PIE II model provided reasonable estimates of efficient costs of the CAN for a number of reasons (which were controversial between the parties);
- (e) the share of network costs that ought to be attributed to the LSS was \$0.77 per month, calculated as set out in its submission to the Commission;

- (f) it was not currently recovering all shared network costs from other services;
- (g) the proposed allocation of shared network costs to the LSS would not result in Telstra over-recovering network costs.

51 In the events which occurred before us, it did not become necessary for us to consider the validity or reasonableness of Telstra's network costs. It was accepted by all parties, and by us, that an investigation of Telstra's network costs would be a protracted, complex and time consuming exercise and sufficient time was not available for us to undertake such an analysis. The Commission made the following concession for the purposes of this proceeding:

*“If it becomes necessary for the Tribunal to consider the reasonableness of the Shared Network Costs referred to in paragraph 22 of Telstra's Application, then the Commission will not contest (in these proceedings only) that the figure of \$0.77 is reasonable (**Concession**).*

The Commission is prepared to make this Concession given the extreme time constraints imposed on the Tribunal and the parties for dealing with Telstra's Application and noting the expected time savings associated with the removal of issues associated with Shared Network Costs that will be brought about by this Concession and on the basis that it is likely to be immaterial to establishing that the LSS monthly charge referred to in the Undertaking is reasonable.”

The other parties (excluding Optus) made a concession in the same terms.

52 Having regard to the conclusions which we have reached in respect of the assessment of Telstra's LSS-specific costs, it has not become necessary to enter into an investigation and analysis of Telstra's network costs, shared or otherwise.

ISSUES RAISED

53 Telstra's application raises for consideration the following substantive issues:

- (a) whether the charge contained in the undertaking exceeds the efficient costs of supply of the LSS;
- (b) whether Telstra's SC Model provides reasonable estimates of the efficient costs of supplying the LSS;

- (c) whether an implied revenue stream should be calculated using a tilted annuity formula as Telstra has done;
- (d) whether the WACC employed to calculate the LSS-specific costs should be as determined by Telstra;
- (e) whether the demand estimates used by Telstra should be adopted;
- (f) whether the calculation of LSS-specific costs should be levelised over the period from 2002/2003 to 2005/2006 inclusive;
- (g) whether the specific costs incurred by Telstra in providing the LSS should only be allocated across, and recovered by Telstra from, LSS lines;
- (h) whether the \$9.00 monthly charge should include a component of shared network costs calculated by reference to the PIE II model.

The issues in sub-pars (a) to (e) and (h) did not ultimately have to be determined as a result of our conclusions on levelisation and cost allocation.

CALCULATION OF THE LSS-SPECIFIC COSTS

54 Telstra provided particulars (the “Particulars”) of the manner in which the LSS-specific costs of \$10.98 per month were calculated. They are basically made up of capital costs, O&M costs and indirect costs.

55 The capital costs comprised the labour costs of developing the LSS Carrier Interface System and implementing changes to a number of Telstra’s existing core systems to enable provision of the LSS. The amounts are set out in Confidential Annexure B. For present purposes it is not necessary to set out those figures in order to follow our reasoning. It is sufficient to note that the expenditure was modelled to occur in three separate periods (2001/2002, 2002/2003 and 2005/2006). For 2001/2002 and 2002/2003, the expenditure modelled is the actual amount of expenditure by Telstra in those periods. The expenditure for 2005/2006 reflected forecast expenditure Telstra expected to incur in that period in order to upgrade relevant software to account for auto migration and transfers between DSL Internet Grade and the LSS. Once estimated, these capital costs were converted to annual capital costs using a so-called “tilted annuity” formula which was specified in the Particulars. Use of the tilted annuity formula was designed to determine a particular amount of cost that should be

recovered, in specified periods, “out of revenues expected to be earned over all or part of the life of the project.” It also ensured that these amounts would allow Telstra to earn what it claimed was a normal return on its capital expenditure.

56 The size of this “return on capital” is determined via estimation of a WACC. In its model, Telstra applied a post-tax WACC in the tilted annuity formula. Application of a post-tax WACC results in an implied revenue stream which is after payment of corporate tax and which is “grossed up” to accommodate the tax burden (recognising the imputation benefits) relevant for each year in the calculation. On the basis of this approach, Telstra estimated the level of capital costs that should be recovered in each of the four periods commencing in 2002/2003 and ending in 2005/2006. These figures are set out in Confidential Annexure B.

57 It is important to note that while Telstra submitted that its capital costs were incurred (or forecast to be incurred) in each of 2001/2002, 2002/2003 and 2005/2006, the approach used by Telstra did not involve the entirety of each of these costs being recovered in the four-year period from 2002/2003 to 2005/2006 (inclusive). That is, under the tilted annuity approach used by Telstra, the capital costs incurred in each of 2001/2002, 2002/2003 and 2005/2006 would be spread over five-year periods. Five years was chosen because this represented the estimated life of each of the assets invested in during these periods. The periods over which these costs were spread are as follows:

Year of expenditure	First year of recovery	Last year of recovery
2001/02 and 2002/03	2002/03	2006/07
2005/06	2005/06	2009/10

We emphasise that Telstra uses a number of fixed assets in providing its LSS and may upgrade any one of those assets at different times. Thus, it makes no sense to talk of a unique life of each asset and it is best to treat the assets as a group having an average life that will be, in fact, a continually rolling average. There was no real dispute between the parties that the appropriate average in that sense is five years.

58 This means that under the approach used by Telstra, some portion of the capital costs incurred in each of 2001/2002, 2002/2003 and 2005/2006 will remain unrecovered at the end of the four-year period from 2002/2003 to 2005/2006 (inclusive). This is especially the case

for the capital costs incurred in 2005/2006, as the majority of these costs are modelled to be spread over the subsequent periods from 2006/2007 to 2009/2010.

59 The O&M costs were made up of two categories of cost – front of house costs and wholesale product management costs. The front of house costs included figures for connections/staff/day (as set out in Confidential Annexure B) and an estimated number of LSS connections per annum. On the basis of these estimates, Telstra was able to calculate the number of staff who would be required in order to perform the necessary connections for each of the four years in the period from 2002/2003 to 2005/2006 (inclusive). When combined with an annual cost for a staff member needed to perform such connections, Telstra was able to estimate the total cost of providing connections in each of those years. Figures were also provided for the second category of O&M costs (wholesale product management costs) comprising the annual costs of one product manager (set out in Confidential Annexure B). A smaller once-off O&M cost was also included for auto migration and transfers between DSL Internet Grade and LSS for the 2005/2006 period.

60 The indirect O&M costs were indirect costs associated with the front of house connection group and the product manager. These expenditures represented a percentage (the quantum of which was not in issue, and which is set out in Confidential Annexure B) of the direct product manager expenses and front of house connection group costs.

61 Telstra totalled its capital costs, O&M costs and indirect costs for the four years 2002/2003 to 2005/2006 (inclusive) and determined that its annual costs should be recovered from the number of LSS lines in operation. In order to do this Telstra levelised the costs over the four years using a specified “levelisation” formula. This levelisation formula enabled Telstra to derive a constant annual amount per LSS line in operation. That annual amount was then divided by 12 to arrive at a monthly cost of \$10.98 per LSS line per month, to which Telstra added \$0.77 which it contended was the share of network costs which ought to be attributed to its LSS (see par [38] above).

REASONABLENESS OF THE \$9.00 CHARGE

62 Telstra’s principal contention was that the \$9.00 monthly charge was reasonable so long as it did not exceed what it claimed to be the efficient costs of supply of the LSS, namely \$11.75

being the \$10.98 per LSS line per month plus the \$0.77 it contended was the share of network costs attributed to its LSS.

63 Telstra submitted that a term relating to the price charged by an access provider will be reasonable if the price will permit the access provider to recover no more than a reasonable estimate of the efficient costs of delivering that service during the period of an undertaking. Insofar as Telstra's submission is tied to the period of the undertaking, a period it alone controls, we do not accept that submission (see par [107] below). In this area of analysis there is no one correct or appropriate figure in determining reasonable costs or a reasonable charge. Matters and issues of judgment and degree are involved at various levels of the analysis. 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.

64 It is clear that the relevant inquiry brings into consideration the matters set out in ss 152AH and 152AB of the Act. For in determining whether a term relating to price is reasonable, regard must be had to the matters set out in those sections. As Telstra acknowledged, in coming to a decision whether or not a term relating to a price or charge is reasonable it is necessary for the Tribunal to look at the means by which the price or charge was derived and to consider whether the method adopted was, in the circumstances, reasonable. That, in turn, requires evaluating the method adopted by reference to the same matters set out in ss 152AH and 152AB.

65 The Commission saw two issues as being of greater significance in terms of their impact on the quantum of the reasonable charge per month per LSS:

- what is a reasonable period for levelisation of the annual costs;

- in determining efficient unit costs, over the demand for which services should annual costs be allocated?

66 We accept that the issues of the period of levelisation of the annual costs and the identification of the services over which the LSS-specific costs should be allocated are of greater significance than the other issues identified in par [53] in determining whether Telstra's proposed \$9.00 monthly charge is reasonable and no more than Telstra's efficient costs of supplying the LSS. However, we do not consider the issues to be something to be determined as an absolute.

67 Rather, the relevant inquiry is whether Telstra's \$9.00 monthly charge is reasonable having regard to the matters set out in ss 152AH and 152AB of the Act. If we find that that charge and the principles by which its relevant components are determined are reasonable having regard to those matters, then it does not matter whether there may be a period of levelisation of the annual costs, other than the period chosen by Telstra, which may also be thought to be reasonable. Nor does it matter whether there may be a cost allocation over services different from that chosen by Telstra which may be regarded as reasonable. In a number of respects we are operating in areas where there is no one specific regulatory, economic, accounting or financial answer, and where there may be a number of approaches to the determination of relevant costs or their allocation which may be regarded as reasonable. Our inquiry is directed to whether Telstra's \$9.00 monthly charge in its access undertaking is reasonable having regard to the statutory matters set out in of ss 152AH and 152AB of the Act.

68 We should also point out that when ss 152AH and 152AB require the Tribunal to have "regard" to certain matters, the Tribunal is required, in the words of Mason J, to take those matters into account and to give weight to them as fundamental elements in making its determination: *The Queen v Hunt; Ex parte Sean Investments Pty Ltd* (1979) 180 CLR 322 at 329.

69 As noted above, Telstra contended that a charge specified in an access undertaking is reasonable, so long as it does not exceed the efficient costs of supply of the LSS. Telstra contended that this approach was consistent with the statutory matters found in ss 152AH and 152AB because efficient cost-based pricing:

- (a) was in the long-term interests of end-users, as it:
 - (i) created appropriate incentives for access seekers to choose to build infrastructure rather than compete through resale, thereby promoting competition in markets for listed services;
 - (ii) encouraged economically efficient investment by both access provider and access seeker, thereby maintaining the safe and reliable provision of carriage services and promoting any-to-any connectivity;
 - (iii) gave rise to competitive neutrality as between access provider and access seekers which will tend to ensure that end-user churn occurs on the basis of relative efficiency and not pricing distortions, thereby ensuring infrastructure is utilised in the most efficient way;
- (b) ensured that Telstra earned a normal commercial return on its investment in the systems and infrastructure used to supply the LSS, which was consistent with its legitimate business interests;
- (c) accommodated the interests of access seekers in enabling them to compete efficiently in downstream markets;
- (d) did not permit recovery of compensation in excess of direct costs;
- (e) by encouraging economically efficient investment in the long term, enabled the access provider to maintain the safety and reliability of the operation of the infrastructure and systems in connection with the LSS;
- (f) by encouraging economically efficient investment and use in the long term, it was consistent with the economically efficient operation of services, including competitors' services.

We agree that a charge above the efficient costs of supply would be unlikely to be reasonable. This proposition was not controversial. What was controversial was whether the \$9.00 monthly charge was determined by reference to efficient cost-based pricing. The Commission and the other parties challenged Telstra's assertion that these costs were efficient, and indeed, submitted that Telstra had not demonstrated that these costs were efficient.

SUBMISSIONS OF OTHER PARTIES

70 The other parties challenged Telstra's contentions and, in particular, contended that the \$9.00 monthly charge for access to the LSS exceeded the efficient cost of supply of the LSS and was not consistent with the statutory matters set out in s 152AH of the Act in that it:

- (a) was not in the long-term interests of end-users as it was unlikely to promote competition, was likely to harm competition for listed carriage services and was unlikely to result in the encouragement of the economically efficient use of, and the economically efficient investment in, the infrastructure by which listed carriage services are supplied;
- (b) did not accord with Telstra's legitimate business interests;
- (c) was not in the interests of persons who had rights to use the LSS (access seekers);
- (d) was likely to result in the over-recovery of the direct costs of providing access to the LSS;
- (e) was likely to result in the over-recovery of costs associated with the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility;
- (f) was likely to result in the over-recovery of costs associated with the economically efficient operation of a carriage service, a telecommunications network or a facility.

71 The Commission contended:

- (a) that the \$9.00 monthly charge exceeded the efficient forward-looking costs of supply of the LSS calculated on the basis of the Commission's TSLRIC+ methodology;
- (b) that the figure of \$10.98 was not a reasonable estimate of Telstra's efficient LSS-specific costs;
- (c) Telstra's capital costs (comprising the labour costs of developing the LSS carrier interface system and implementing changes to another of Telstra's existing core systems to incorporate the LSS) were labour costs incurred in making minor modifications to Telstra's pre-existing computer software for its ordering system which was used in connection with the supply of all of Telstra's wholesale services

and, in some instances, the supply of its retail services and, as such, were not directly attributable to the LSS;

- (d) the \$9.00 monthly charge was not reasonable because Telstra annualised its capital costs using a tilted annuity formula and, furthermore, used data that were not representative of the annual change in the replacement cost of the relevant assets;
- (e) Telstra's formulae for the WACC, the cost of equity capital and the cost of debt capital were reasonable but it challenged its assessment of the risk free rate, market risk premium, and other aspects of its WACC calculation;
- (f) Telstra should levelise its annual costs over the five-year period 2002/2003 to 2006/2007 inclusive rather than the four-year period Telstra chose, namely 2002/2003 to 2005/2006, inclusive;
- (g) not all the inputs and associated costs used in Telstra's model were reasonable;
- (h) Telstra levelised the annual LSS costs using a WACC value for 2001/2002 rather than applying a WACC value for the first year of that levelisation, namely a WACC value for 2002/2003;
- (i) Telstra applied the annuity and levelisation formulae incorrectly, such that there was an inconsistency between the time at which the capital charges were recognised by the model and the time at which the recovery of those charges was assumed by the model to commence, with the result that the model overstated the efficient costs of supplying the LSS.

The Commission also challenged Telstra's demand estimates as being overly pessimistic, and pointed to a number of inconsistencies between Telstra's contentions in its statement of facts issues and contentions and in its particulars of its costs.

72 The parties also challenged Telstra's model for determining its LSS-specific costs because it did not represent a forward-looking, efficient costs model. They claimed that Telstra had substantially overstated its LSS-specific costs and in particular, its direct and indirect O&M costs, and that those costs were not reasonable estimates of efficient costs. Optus also contended that the asset life of five years assumed by Telstra was too short and that the asset life should commence when the LSS was first supplied in 2002/2003 and not when the capital expenditure was incurred.

73 As noted earlier, Telstra's SC Model used the demand for the LSS to determine a per unit annual cost of providing the LSS. Telstra levelised the annual costs over the period 2002/2003 to 2005/2006 inclusive to ensure that the per unit cost was the same over those years. It contended that the period of levelisation was reasonable because demand forecasts beyond 2005/2006 were very uncertain. This period of levelisation was challenged by other parties who contended that the costs should be levelised over the period 2002/2003 to 2006/2007 which represented a period concurrent with the useful life of the assets being used, namely five years. According to the Commission, if we were to find that the reasonable period of levelisation was 2002/2003 to 2006/2007, but were to accept all of Telstra's other contentions in respect of LSS-specific costs (including Telstra's forecasts of demand for the LSS) the maturing nature of demand for the LSS would mean the estimate of efficient LSS-specific costs would be an amount below \$7.00 (to which are added shared network costs). The actual figure is confidential and is set out in Confidential Annexure B.

74 Telstra contended that it was reasonable to use the demand for LSS lines, and not for any other service, in determining the unit costs for the LSS. Telstra contended that this was a reasonable approach because:

- (a) the LSS-specific costs were solely caused by, and attributable to, the LSS;
- (b) it was consistent with the outcomes achieved in a competitive market;
- (c) it enabled Telstra to recover the LSS-specific costs in a way that was consistent with long-run efficiency;
- (d) it ensured that the price of the LSS reflected the resource costs of LSS-based entry and thereby encouraged efficient infrastructure investment decisions;
- (e) it ensured that, consistently with long-run efficiency, in the short-run the LSS would not be supplied beyond the short-run efficient point where marginal cost exceeded marginal benefit;
- (f) it was competitively neutral.

75 The Commission and the other parties challenged Telstra's allocation of its LSS-specific costs over the LSS lines and contended, variously, that the total LSS-specific costs ought to be spread over or divided by a wider range of lines. The Commission, in particular,

contended that the costs of supplying the LSS were not directly attributable to the LSS, that Telstra's approach was not consistent with the matters set out in s 152AH(1) and that the use of demand for the LSS, and not for any other services, would provide Telstra with a greater return than was necessary to ensure that Telstra's legitimate business interests were met.

76 The parties canvassed different options for spreading the LSS-specific costs. These options covered:

- all lines which utilised the CAN;
- all lines in the CAN which might reasonably be used to provide the LSS;
- all lines which were capable of providing DSL services;
- all lines over which a DSL service is or has been supplied;
- reasonable forecast demand for the LSS combined with reductions in the monthly charge where demand exceeded that forecast.

77 As can be seen from our summary of the parties' contentions a number of matters of detail arise, each of which is not determinative of the principal issue, namely whether the \$9.00 monthly charge is reasonable. No one of those matters, by itself, is sufficient to enable a definitive response. However, there are two matters of principle each of which, if decided adversely to Telstra's submissions, is determinative of the principal issue.

78 The first issue of principle is the manner in which, or the period over which, Telstra undertook the process of levelisation to determine a constant charge for the LSS. Telstra contended that the appropriate levelisation period was four years whereas the Commission and the other parties contended that it should be a five-year period.

79 The second issue of principle is whether Telstra's LSS-specific costs should be recovered from the lines which were used to provide the LSS, or whether they should be recovered from a broader range of services.

80 For the reasons to which we shall refer we consider that the \$9.00 monthly charge specified in the undertaking does exceed the efficient per unit cost of supply of the LSS and is not reasonable because, having regard to the statutory matters set out in ss 152AH and 152AB,

the methodology by which Telstra determined its per unit cost and arrived at that charge is not reasonable.

LEVELISATION

81 We turn to the issue of levelisation. Telstra's \$9.00 monthly charge has been determined on the basis of Telstra levelising its per unit LSS-specific costs over its preferred levelisation period of four years. There is no one unique or correct period for levelisation in any theoretical sense. The appropriate period will differ according to the circumstances. It is no part of our task to decide whether one period of levelisation is more reasonable than another period of levelisation. Our task is to determine whether the manner in which Telstra has determined its costs is reasonable having regard to the statutory matters to which we have referred.

82 The Commission submitted that, in the context of access pricing, levelisation refers to the method used to convert the annual (LSS-specific) costs that vary from year to year into a constant unit price that just recovers these costs. It also quoted the report of Mr Henry Ergas, an independent consulting economist retained by Telstra, who noted that, in theory, "if the price for a service is set at a price equal to this levelised value, then the expected present value of revenue from the levelised price will equal the expected present value of costs". Separately, however, the Commission submitted that the purpose of levelisation is to spread costs over the life of assets from the moment those assets become operational in facilitating the supply of relevant services. Approached in this way, the Commission submitted that the costs of the assets are properly spread over the useful operational life of the assets, reflecting the time it would take to recover those costs.

83 Telstra acknowledged that the purpose of levelisation is to spread the costs over a pre-determined timeframe which was not necessarily equal to the life of the relevant assets. That timeframe, according to Telstra, might be the duration of a contract rather than the life of the assets used to provide the services covered by the contract. In the present case, Telstra chose the four-year period commencing from the beginning of 2002/2003, and finishing at the expiry of the undertaking at the end of 2005/2006.

84 We do not agree with the Commission that the purpose of levelisation is necessarily to spread costs over the life of assets. This is more likely to be the purpose of the separate step of

annualisation in Telstra's SC Model. Levelisation, in contrast, is simply designed to ensure that a charge set to recover the costs of providing a service over a given timeframe (not necessarily consistent with the lifetime of the assets involved in providing the service) does not vary from one period to the next within that timeframe. As indicated at par [81] above, there is no one unique correct period in a theoretical sense. That said, in circumstances where demand levels are changing, and annualised costs attributed to various periods differ on account of factors such as staggered investments and tilt factors applied in the annuity formula, the choice of timeframe over which to levelise costs can have a significant bearing on the per unit cost estimate that results from the application of a levelisation formula. At issue in this review is whether the timeframe chosen by Telstra (four years) is reasonable, having regard to relevant statutory matters.

85 The Tribunal has to be satisfied affirmatively, in accordance with s 152BV(2)(d) of the Act, that the term of the undertaking of the \$9.00 monthly charge is reasonable. This requires the Tribunal to have regard to the statutory matters specified in ss 152AH and 152AB of the Act and to analyse that charge of \$9.00 per month by reference to, and having regard to, those statutory matters. A similar analysis must be undertaken in relation to the period of levelisation chosen by Telstra in order to determine its per unit monthly cost which is to be compared with its proposed \$9.00 monthly charge. That is, we have to be satisfied that the \$9.00 monthly charge calculated by reference to per unit monthly cost determined on the basis of a levelisation period of four years chosen by Telstra is reasonable, having regard to the statutory matters set out in ss 152AH and 152AB.

86 Telstra rejected a levelisation period of five years because it claimed, *inter alia*, there is too much uncertainty in forecasting demand for the fifth year for that forecast to be sufficiently reliable for the purpose of calculating its monthly per unit cost and then determining an appropriate monthly charge. We note that while Telstra might have made such a forecast based on figures it presented, it instructed Mr Ergas that "... there is substantial uncertainty associated with forecasting ULLS and SSS [LSS] demand beyond 2005/2006". Based on that instruction Mr Ergas concluded that "the risk involved in relying on longer term demand forecasts is likely to be large". Mr Ergas' evidence based on this instruction by Telstra is analysed later in these reasons.

87 In circumstances where demand for Telstra's LSS is growing and it applies a forward-tilted annuity formula to annualise its capital costs, levelisation of its costs over a four-year period will result in a higher monthly per unit cost estimate than if its costs were levelised over a longer period. If we were to find Telstra's proposed four-year levelisation period reasonable, the consequence would be that it would be able to impose a higher monthly access charge if the charge is set by reference to the monthly per unit cost estimate (assuming all other aspects of the manner in which it has estimated its per unit costs of providing the LSS are reasonable). However, when costs are levelised over four years and we have regard to the statutory matters in ss 152AH and 152AB, we are driven to the conclusion that determining costs by reference to a four-year levelisation period is not reasonable. The imposition of a charge calculated by reference to such a higher cost has the consequence, *inter alia*, that it retards existing competitors and discourages existing and potential competitors from using the LSS to provide retail services to end-users, thereby having a dampening effect on competition.

88 The first matter in ss 152AH and 152AB to which regard must be had when considering the levelisation period adopted by Telstra is whether it promotes the long-term interests of end-users of carriage services or of services supplied by means of carriage services: s 152AH(1)(a). In considering the long-term interests of end-users we are directed to s 152AB to which we shall return.

89 We turn to the next statutory matter in s 152AH(1)(b) and have regard to the legitimate business interests of Telstra and Telstra's investment in facilities used to supply the LSS. Those legitimate business interests require that Telstra be allowed to recover its costs of supplying the LSS 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. Support for

this view can be found in the Explanatory Memorandum to the Trade Practices Amendment (Telecommunications) Bill 1996 which introduced Pt XIC into the Act. That Memorandum noted:

“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.”

Use of a four-year period is not commercially necessary to ensure that Telstra’s legitimate business interests are taken into account and accommodated. Any period of levelisation will ensure Telstra receives enough revenue to recover its legitimately incurred costs (inclusive of a normal return on its investment). Overall, while a four-year approach may be sufficient to meet Telstra’s legitimate business interests, it is not necessary in order to meet its legitimate business interests.

90 The question required to be answered is whether it is reasonable for Telstra to set a charge calculated by reference to an estimate of the per unit cost of the LSS that relies upon a levelisation period of four years. The answer to the question turns not only on regard being had to Telstra’s legitimate business interests and its investment, but also on regard being had to:

- each of the other five matters in s 152AH(1);
- the extent to which the four-year levelisation period is likely to result in the achievement of each of the objectives in s 152AB(2)(c),(d) and (e).

Having had regard to those matters and to those objectives we have, for reasons stated in the following paragraphs, determined that while it is in Telstra’s legitimate business interests to recover its costs, having regard to its investment in facilities, it is not reasonable for it to do so using a four-year levelisation period.

91 In determining whether a four-year levelisation period is reasonable, s 152AH(1)(c) requires us to have regard to the interests of persons who have rights to use Telstra’s LSS, that is, access seekers. As noted in par [87] levelisation of costs over a period such as four years would result in:

- higher monthly costs; and
- Telstra justifying a higher monthly charge,

than if the levelisation occurred over a longer period. A higher monthly charge would not be in the interests of an access seeker because it would raise its costs and inhibit its ability to compete with Telstra over the provision of retail services to end-users that could be provided using the LSS.

92 The next step in determining whether a four-year levelisation period is reasonable is to have regard to the direct costs of providing access to Telstra's LSS (s 152AH(1)(d)). It is necessary to ascertain the categories of those costs. To that end, we have had regard to the material provided by Telstra in relation to its LSS-specific costs and shared network costs (see pars [54] to [61] above). In having regard to those costs we noted other parties have challenged both the components and quantum of Telstra's costs. However, at this stage of determining whether a four-year levelisation period is reasonable, we are not required to have regard to whether the direct costs identified by Telstra are efficient costs. That is an issue to consider when we have regard to the economically efficient operation of the LSS as required by s 152AH(1)(f) and the objective of encouraging the economically efficient investment in infrastructure as required by s 152AB(2)(e). But for the purpose of assessing whether a four-year levelisation period is reasonable, the matter to which s 152AH(1)(d) requires us to have regard (the direct costs of providing access to Telstra's LSS) is not determinative of the issue as a consideration of direct costs in this context is concerned with ensuring that the costs of providing the service are recovered. We note that Telstra only seeks to recover direct costs. This would be the case irrespective of the levelisation period chosen.

93 Nor is the matter to which s 152AH(1)(e) requires us to have regard (the operational and technical requirements for the safe and reliable operation of Telstra's LSS) determinative of the issue. In reaching this conclusion, we note that neither Telstra nor the other parties contended that the period of levelisation impacted on the operational or technical requirements in terms of s 152AH(1)(e).

94 The final matter to which s 152AH(1) requires us to have regard in determining whether Telstra's proposed four-year levelisation period is reasonable is "the economically efficient operation of a carriage service, a telecommunications network or a facility." The inclusion of

the term “economically” in s 152AH(1)(f) suggests that concepts of allocative, productive and dynamic efficiency should be considered. Allocative efficiency will be best promoted where the price of a service reflects the underlying marginal cost of providing the service. However, as indicated above, Telstra’s choice of a four-year levelisation period has the effect, in circumstances where demand for the LSS is rising and a forward-tilted annuity formula is applied to annualise capital costs, of enabling Telstra to justify a higher monthly charge per LSS line. As discussed below, we consider this will dampen competition in the provision of retail services (such as high-speed data services) that access seekers using the LSS may provide to end-users. If there were to be such a dampening of competition, Telstra would be able to set above-cost prices for these retail services it supplies. This, in turn, would lead to:

- a reduction in the consumption of these services below those levels that would be expected in competitive (“economically efficient”) markets;
- consequential allocative inefficiencies.

In these circumstances, therefore, we consider Telstra’s choice of a four-year levelisation period has the potential to discourage the economically efficient operation of retail services provided by access seekers using Telstra’s LSS or by Telstra itself in competition with those access seekers.

95 Further, by reducing the competitive forces that apply to Telstra when providing retail services to end-users, the incentive for Telstra to find the least cost way of providing these services (both now and into the future) will be reduced. In turn, this would be expected to lead to reductions in productive and dynamic efficiency in a way that would not promote the economically efficient operation of telecommunications networks and infrastructure now and in the future.

96 As foreshadowed in par [88] and as required by s 152AH(1)(a), we now turn to have regard to whether a four-year levelisation period promotes the long-term interests of end-users of carriage services. In undertaking this exercise, we are required by s 152AB(2) to have regard to the extent to which the four-year levelisation period is likely to result in the achievement of the three objectives stated in s 152AB(2)(c), (d) and (e) (see par [10] above).

97 Section 152AB(4) requires that in determining the extent to which a four-year levelisation period is likely to result in the achievement of the objective in s 152AB(2)(c) (promoting competition in markets for listed services), regard must be had to the extent to which the period will remove obstacles to end-users of Telstra's LSS gaining access to it. The levelisation period chosen by Telstra does not achieve, nor is it likely to achieve, the objective set out in s 152AB(2)(c) because a levelisation period of four years has the result in these particular circumstances (where demand is growing and a forward-tilted annuity formula is applied to annualise capital costs) of enabling Telstra to justify a higher monthly charge on competitors than is required for it to recover its costs of providing the LSS. We consider that this will, in turn, make it harder for equally efficient access seekers to compete on their merits with Telstra to provide high-speed data services (such as retail DSL services) to end-users.

98 We turn now to have regard to the extent to which a four-year levelisation period is likely to result in the achievement of the objective in s 152AB(2)(d) of any-to-any connectivity. In doing so we note the terms of s 152AB(8) (par [13] above) and that neither Telstra nor the other parties contended that the period of levelisation impacted on the achievement of the objective of any-to-any connectivity. Having noted those matters, we conclude that a four-year levelisation period would neither promote, nor detract from, the achievement of what is the objective of any-to-any connectivity.

99 In having regard to whether a four-year levelisation period is likely to result in the achievement of the final objective in s 152AB(2)(e) (encouraging the economically efficient use of, and the economically efficient investment in, infrastructure), we are also required to have regard to the matters in s 152AB(6)(a), (b) and (c) (par [12] above).

100 The matters set out in s 152AB(6)(a) and (b) were the subject of little consideration by the parties. We do not consider that the choice of a four-year levelisation period is impacted by a consideration of whether it is technically feasible for the LSS to be supplied. It was not in issue that the supply of the LSS was technically feasible whatever be the levelisation period chosen by Telstra. Further, Telstra's legitimate commercial interests are served so long as Telstra is able to receive a normal return on its investment.

101 It is not necessary for Telstra to recover its costs on the basis of a four-year levelisation period in order for it to be able to take advantage of whatever economics of scope and scale it may have due to the size of its customer base and the breadth of services it provides using its CAN and other infrastructure.

102 As noted above, we consider that the choice of a four-year levelisation period will have the effect of dampening competition in the provision of retail services that access seekers may provide using Telstra's LSS. This dampening of competition would be likely to reduce pressures on Telstra to pursue pricing approaches, production techniques, investment and innovation that would have the effect of encouraging allocative, productive and dynamic efficiencies. Accordingly, we do not consider that the use of a four-year levelisation period is likely to encourage the efficient use of the infrastructure by which listed services are supplied.

103 We turn to s 152AB(6)(c) and consider incentives for investment. We consider that Telstra will have the incentive to make efficient investments so long as it receives a normal return on its investment. Telstra's choice of a four-year levelisation period is not necessary for it to earn a normal return on its investment. That is, as noted above, any period of levelisation will ensure that Telstra receives enough revenue to recover its costs of providing the LSS.

104 However, as also noted above, the choice of a four-year levelisation period is, in circumstances where demand is rising and a tilted annuity formula is used, likely to inhibit the ability of access seekers to compete with Telstra in the provision of retail services to end-users. To the extent that this is the case, such an approach to levelisation may have the effect of discouraging efficient investments by access seekers in the infrastructure needed to provide those retail services (for example, investments in DSL access multiplexer (DSLAM) infrastructure). Viewed in this way, the use of a four-year levelisation period could discourage efficient investments by access seekers in the infrastructure by which listed services are supplied.

105 Section 152AB(7A) also requires that for the purposes of s 152AB(6)(c) in determining incentives for investment, regard must be had to the risks involved in making the investment. Any uncertainty in estimating demand beyond four years could be taken into account in determining the equity beta in the WACC formula, depending upon the circumstances.

106 Having had regard to the matters in s 152AB(6) and (7A) and noting that subs (6) does not by implication limit the matters to which regard may be had, we conclude that a levelisation period of four years would not recover Telstra's costs in a way that will encourage allocative, productive and dynamic efficiency. Efficient use is encouraged so long as Telstra recovers its costs over the life of the assets. Put another way, levelisation of costs over a period of four years is not likely, nor is it necessary, to achieve the objective of encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure by which Telstra's LSS is supplied, or is likely to become capable of being supplied. Overall, therefore, the Tribunal does not consider that use of a four-year levelisation period is likely to generate a charge for the LSS that would promote the long-term interests of end-users of the service.

WHETHER THE PERIOD OF LEVELISATION SHOULD MATCH THE PERIOD OF THE UNDERTAKING

107 At issue in the proceeding was the proposition advanced by Telstra that the period chosen for levelisation should not go further than the end of the period of the undertaking. Optus submitted that this was entirely arbitrary because there is no reason in law, logic or economics why the levelisation period upon which the charge in the undertaking was based ought to bear any relationship to the period of the undertaking itself. We agree that determining a levelisation period by reference to the period of the undertaking is arbitrary. It is not required to be chosen having regard to the statutory matters set out in ss 152AH and 152AB.

108 The period offered for the undertaking is normally under the control of the person giving it. Should the person choose for their own commercial or strategic reasons a relatively short period for its undertaking, it follows that the costs of access will be levelised over the same relatively short period, if the position put by Telstra is accepted. This means that the person giving the undertaking will be in a position to dictate the level of costs to be recovered each year from access seekers, and in certain circumstances – such as those where there is increasing demand for the service and a forward-tilted annuity formula is applied to annualise capital costs – will be able to enjoy higher access prices if a shorter undertaking period is chosen over a longer one.

109 To decide whether the Telstra position is reasonable, it is necessary to measure the outcome from the adoption of the method of matching the levelisation period with the period of the undertaking against the various statutory matters in ss 152AH and 152AB.

110 To support its argument, Telstra proffered a report prepared for it by Mr Ergas, an independent consulting economist. In his report, Mr Ergas noted that the purpose of levelisation under cost-based price regulation was “to eliminate price variability”, especially in situations where “underlying costs per unit are likely to be substantially higher in earlier periods when volumes are low due to the presence of fixed ... cost elements.” In the absence of levelisation, prices would be high in early periods and lower in later periods, a result that in Mr Ergas’ opinion would produce “a pattern of prices which can depart from the competitive norm that regulated access prices should seek to mimic.”

111 Mr Ergas went on to say that “in a competitive market service providers may smooth prices over limited periods, and **in particular avoid high prices in early periods and low prices in later periods, as they anticipate such smoothing would be attractive to access seekers**” (emphasis added).

112 It is not difficult for us to agree with this statement. And by logic it follows that those who seek access to Telstra’s LSS would, faced with a choice of \$9.00 (the charge claimed by Telstra to be a reasonable access charge) for the first four years and an unspecified but probably lower charge in the fifth year of the assets’ life, surely reject this charge in favour of a levelised but certain charge over each of the five years of less than \$8.00. The actual figure is confidential and is set out in Confidential Annexure B. This is the charge calculated by reference to Telstra’s claimed costs (both LSS-specific and shared network) being levelised over a five-year period, rather than a four-year period.

113 If the basic purpose of levelisation is to eliminate price variability and provide some degree of certainty to access seekers, then a fixed lower price of less than \$8.00 per year for five years would give an access seeker a much greater level of certainty in its early stages of operation than a charge of \$9.00 for four years with some unknown, but likely lower, charge to be applied in the fifth year. The determination of a charge over five years is more likely to achieve the objective that Mr Ergas said would mimic a competitive market and be attractive to access seekers (see pars [110] and [111] above).

114 In addition, it seems to us that it is telling that in his report to Telstra Mr Ergas chose to discuss only “**some** factors that must be considered when determining the appropriate levelisation period for the purpose of recovering costs” (emphasis added). The two factors he nominated were “Ensuring cost recovery” and “Reducing the variability of returns”.

115 While we do not deny the relevance of these two factors, we agree with the position put by Counsel for Optus that in the main these two factors (and certainly the first one) relate mainly to s 152AH(1)(b), namely the legitimate interests of the carrier. This factor is only one of the six s 152AH matters. All six factors must each be considered (and regard had to them) in any complete assessment of whether a particular levelisation period and the resulting access price is reasonable.

116 Mr Ergas did not carry out such a broad analysis. His recommendation in par 48 of his report for a levelisation period of four years (in which he concludes that “to allow for an appropriate balancing of the burden of demand side risk between Telstra and access seekers, there should be only one levelisation period up to 2005/2006. This can accord with the likely competitive norm...”) failed to have regard to all the relevant statutory matters.

117 While Mr Ergas presented his conclusion as a judgment that had balanced the relevant matters that need to be considered, he had only considered a subset of those matters to which the statute demanded attention be paid. In particular, he did not consider the long-term interests of end-users.

118 Telstra is of course entitled to recover its efficient costs and can indeed recover these valid costs, regardless of the levelisation period. It is simply a matter of what that period should be. We do not find Mr Ergas’ arguments persuasive. He was instructed that “there is substantial uncertainty associated with forecasting ULLS and SSS demand beyond 2005/06”. It was on the basis of that instruction that he concluded that “the risk involved in relying on longer term demand forecasts is likely to be large”.

119 On balance, use of a four-year period to levelise the costs of providing the LSS is not reasonable. It is not necessary for levelisation to be over a four-year period in order that a charge can be set for the service that ensures Telstra:

- recovers its direct costs of providing the service;
- earns sufficient revenue to meet its legitimate business interests when providing the service;
- has appropriate incentives to invest in the infrastructure by which the LSS is provided.

Choice of a four-year levelisation period will, however, ensure a high charge is set for the service that will:

- not promote competition in the markets for listed services;
- not encourage the economically efficient use of, or investment in, the infrastructure by which the listed services are supplied;
- will not be in the interests of persons who have rights to use the declared service.

Insofar as a four-year levelisation period is required because, as claimed by Telstra, there is uncertainty in estimating demand beyond four years, we note that this uncertainty could, depending upon the circumstances, be taken into account in determining the equity beta in the WACC formula.

120 The end result of this analysis is that using a levelisation period of four years for the purpose of calculating Telstra's monthly charge is not reasonable having regard to the statutory matters set out in ss 152AH and 152AB. It should be noted, and we emphasise the proposition, that the point is not that a levelisation period of five years is more reasonable than a levelisation period of four years in any absolute, economic or commercial sense. Rather, in terms of s 152BV(2)(d), the point is that we are not satisfied that the actual levelisation period of four years adopted by Telstra is reasonable having regard to the statutory matters to which we have referred.

COST ALLOCATION

121 The next issue of principle to address is the issue of the lines over which the LSS-specific costs should be allocated. Telstra contended that the costs should be allocated over the LSS lines which are either made available to access seekers or in respect of which there is a forecast demand over the relevant levelisation period. The Commission, Optus and the other parties contended for a wider spread of the costs, namely, over at least the lines in respect of which a DSL service had been used or was being used. We emphasise that the issue is not

whether there is a more reasonable approach to cost allocation than that advanced by Telstra, but is rather whether Telstra's approach to cost allocation is reasonable having regard to the matters identified in ss 152AH and 152AB.

122 Telstra submitted that its LSS-specific costs are solely caused by, and attributable to, the LSS because they would not be incurred if Telstra did not supply the service. It contended that its LSS-specific costs should be recovered solely from the provision of the LSS and that the demand for the LSS (and not for any other service) should be used to unitise the costs of the LSS.

123 Telstra argued that such an approach to cost allocation would be in the long-term interests of end-users because:

- recovering LSS-specific costs only from demand for the LSS would ensure the price of the service did not fall below either its long-run or short-run incremental cost. In turn, this would promote efficient consumption decisions in relation to the LSS, as consumers would only purchase services provided using the LSS if the benefits to them were greater than the costs of providing these services over the LSS. Telstra's method of allocating its estimation of LSS-specific costs was therefore consistent with the efficient use of infrastructure;
- the price of the LSS would reflect the resource cost of LSS-based entry by access seekers. In turn, this should ensure they make efficient decisions with respect to whether they should invest in (or 'build') their own infrastructure to provide services in downstream markets or 'buy' access from Telstra. By promoting efficient 'build/buy' decisions, Telstra's cost allocation approach was therefore consistent with promoting efficient investment in infrastructure.

124 Telstra submitted that if LSS-specific costs were spread over more services than simply demand for the LSS, access seekers who acquired the LSS would not, in total, have to pay the full amount of the specific costs associated with providing the LSS to them. The remainder of LSS-specific costs would either not be recovered by Telstra or would be recovered from its own retail customers. Telstra contended that this would not promote the long-term interests of end-users because:

- Telstra faced competition from other network providers such as Optus which owns a hybrid fibre coaxial network. These other network providers might use their networks to provide the same retail services to end-users as those provided by Telstra over its fixed-line network. Thus, to the extent Telstra faced competition in downstream markets from service providers using these alternative network platforms, it would be unable to increase the price of its retail services to recover LSS-specific costs. As a result, spreading LSS-specific costs over more than LSS demand would not be competitively neutral. Telstra would be disadvantaged relative to unregulated facility-based service providers that did not need to recover such costs through the pricing of their retail services. In turn, this would not promote competition;
- to the extent Telstra did recover LSS-specific costs through charges it sets for its own retail customers, this would involve a cross-subsidy from these services to the LSS (which would be priced below its variable cost of supply). In turn, this would result in distortions to allocative, productive and dynamic efficiency, and would therefore be inconsistent with the long-term interests of end-users.

125 AAPT contended that allocating the LSS costs over Telstra's wholesale LSS services, its ADSL services and its retail ADSL services was a reasonable approach because:

- (a) Telstra's wholesale ADSL services and retail ADSL services were, in AAPT's words, "active declared service equivalents of the LSS" and it was therefore not appropriate to attribute costs specifically to the provision of the LSS;
- (b) to allow Telstra to allocate LSS-specific costs across LSS customers only rather than across the DSL services creates an incentive for Telstra to establish one system for the LSS and another for the other DSL services, which might be less efficient for all customers than creating a single system for all DSL services. It was contended that this type of distortion to investment decisions generates economically inefficient outcomes in the long term;
- (c) to allow Telstra to allocate LSS-specific costs across LSS customers only rather than across the DSL services creates an incentive for Telstra to undertake investments that create costs for downstream market rivals that Telstra's own downstream operations do not have to bear, which is contrary to the principle of competitive neutrality.

126 Optus submitted that to allocate the LSS-specific costs solely over the lines which used the LSS was inconsistent with the thrust of the statutory matters to which the Tribunal was obliged to have regard in accordance with ss 152AH and 152AB of the Act in considering whether the monthly charge was reasonable.

127 Telstra claimed that its LSS-specific costs per month were \$10.98, calculated by reference to the lines using the LSS or forecast to use the LSS over the levelisation period it had adopted. For present purposes, in terms of the analysis of the allocation issue we accept, but do not decide, Telstra's cost figure as representing efficient costs. Telstra broke down the \$10.98 amount into variable costs of \$2.54, with the balance of \$8.44 representing the capital costs or fixed costs and the costs of the product manager. Counsel for Optus stated that Optus "would not quibble with the \$2.54 variable costs being allocated in full to the wholesale price of LSS." However, Optus challenged Telstra's treatment of the fixed capital cost component of \$8.44.

128 Optus submitted that Telstra's allocation of the fixed costs over the lines that used the LSS was wrong in principle because firstly it misunderstood the driver of the costs and secondly, it transferred all the costs to competitors of Telstra and, derivatively, to customers of those competitors. In so doing, it submitted that the purpose of the declaration, which was to benefit such end-users from competition, was undermined.

129 As with our analysis of the levelisation issue we approach the cost allocation issue by asking whether Telstra's proposed \$9.00 monthly charge is reasonable having regard to:

- the matters in ss 152AH and 152AB;
- the manner in which Telstra derived that charge, namely, by reference to a figure of \$10.98, which it claims to be its LSS-specific costs determined by, amongst other things, allocating its LSS-specific costs only to lines used, or forecast to be used, to provide its LSS.

130 There is no principle of law, accounting or economics that dictates over what category of lines the LSS-specific costs should be allocated. As a matter of principle, one could look for and identify the driver of the fixed costs involved in providing the service, as some parties have suggested we should do. We note that the "driver" of costs (fixed or otherwise) is not a specific matter to which we are required to have regard under ss 152AH or 152AB. We also

note that under standard economic theory, there is no distinction between fixed and variable costs in the long run. In the long run, all costs are variable. By ‘fixed’ costs, we assume the parties to be referring to those costs that do not vary with output, and which may be considered to be fixed in the short run. As discussed in par [142] below, we believe the appropriate cost concept to consider when assessing the reasonableness of Telstra’s \$9.00 monthly charge having regard to the statutory matters is a long-run cost concept. Under these circumstances, distinctions between fixed and variable cost are not relevant.

131 Telstra’s approach is inconsistent with, and contrary to, one of the purposes of the declaration of the LSS which was, as set out in par [32] above, to preserve competition among the providers of high-speed data services. Optus submitted that the fixed costs are the costs of introducing retail contestability. The start-up costs of providing the LSS (which may be considered to be fixed in the short run) incurred in introducing that retail contestability flowed from, and were driven by, the declaration requirement that a LSS be provided rather than being driven at the margin by the addition of extra LSS lines. Telstra’s allocation method imposes all the specific costs of providing the LSS (including those that would be fixed in the short run) onto its competitors, thereby raising their costs in terms of competing with Telstra to provide retail DSL services.

132 Thus it is necessary to consider whether, having regard to the matters in ss 152AH and 152AB, it is reasonable for Telstra to restrict its allocation of what it claims to be its LSS-specific costs to lines used, or forecast to be used, to provide its LSS.

133 The first factor to be considered is that found in s 152AH(1)(a), namely whether the terms and conditions promote the long-term interests of end-users of carriage services. We defer consideration of this factor until we turn to s 152AB.

134 In circumstances where Telstra is competing with access seekers in the retail DSL market, it is not in Telstra’s “legitimate business interests” to:

- impose all its LSS-specific costs on these access seekers; and
- bear none of those costs itself.

As noted earlier (par [89]) the reference in s 152AH(1)(b) to the legitimate business interests of a carrier and its investment in facilities used to provide facilities to supply a declared service is a reference to a carrier's interest in recovering:

- the costs of its infrastructure;
- its operating costs; and
- obtaining a normal return on its capital.

The costs of making the LSS available to access seekers should be recovered from both Telstra's access seekers (who will recover them from their retail customers) and Telstra's retail customers of high-speed data services using ADSL technology. Not to do so would provide Telstra with a cost advantage when competing as a vertically-integrated entity in a downstream market. The consequence of this is that it would likely be able to:

- raise its charges above its underlying costs (inclusive of a normal return on its investment) of providing services in downstream markets – thereby ensuring it earns a greater than normal return on its investment in the infrastructure used to provide telecommunications services; and
- also raise its rivals' costs.

135 This is particularly so when Telstra has incurred those costs as a result of the declaration of the LSS and also in circumstances where those particular costs are not borne by Telstra itself when supplying DSL services to its retail customers.

136 We do not consider that Telstra's legitimate business interests extend to it achieving a higher than normal commercial return. Although allocating LSS-specific costs only to LSS lines does not allow Telstra to earn greater than normal profits from the provision of the LSS, it does mean that access seekers will be likely to face a higher average cost than Telstra retail would face when providing similar services in downstream markets. This is because any internal costs incurred by Telstra when providing retail access to its DSL lines can be spread over a significantly larger number of customers than LSS-specific costs can be spread over when allocated only to LSS lines. If we assume that it would be unsustainable for any business to price below average costs in the long term, access seekers will not be able to price as low as Telstra potentially can in downstream markets (assuming access seekers are equally efficient as Telstra at retailing DSL products and performing whatever other tasks need to be

performed to turn access to the LSS into a retail product). This will provide Telstra with an opportunity in competing with access seekers to its LSS to raise its charge to a point either equal to, or just below the access seekers' average costs. To the extent that such charges are above Telstra's average costs (inclusive of a normal profit) – as will be the case if Telstra's average costs are less than access seekers' – Telstra will earn greater than normal profits from the provision of its DSL services. Accordingly, pricing the LSS in this way may create the opportunity for Telstra to earn greater than normal profits from the sale of services in downstream markets.

137 Telstra submitted that in supplying its retail DSL service it incurred costs of a similar category to those which comprised the LSS-specific costs of \$10.98. It submitted that it incurred the same type of costs as were incurred by other access seekers who sought access to the LSS. However, there was no evidence to support the submission and we are not satisfied that this is so. Telstra relied upon the statement of Mr Atul Kher but in our view, his statement does not support Telstra's submission. He does not nominate or quantify the relevant costs in any respect. He explains Telstra's internal network ordering and provisioning processes for Telstra's retail broadband but gives no indication of the nature of any costs that may be incurred in such ordering and provisioning.

138 We have regard to the interests of access seekers, as required by s 152AH(1)(c), and are satisfied that Telstra's allocation of its LSS-specific costs over LSS lines is not in the interests of access seekers. In particular, it denies them equality of opportunity in relation to the retail markets in respect of which they are in competition with Telstra. The interests of persons who have a right to use the LSS, 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. The ability of an access seeker to compete on its merits is unlikely to be served by a cost allocation method that spreads relevant costs only over LSS lines. Such an allocation is likely to give rise to a significantly higher average cost for access seekers when providing services in downstream markets as compared to that likely to be faced by Telstra retail.

139 We turn to the matter in s 152AH(1)(d) and have regard to the direct costs of providing access to the LSS. Telstra's approach to estimating a per unit cost for the LSS does not explicitly involve it including costs other than the costs of providing access to the service.

The costs allocated in Telstra's SC Model are only related to the provision of the LSS, and do not include any recognition of lost profits that may result from increased competition in downstream markets. Telstra's approach to estimating a per unit cost is likely to be consistent with ensuring recovery only of direct costs. However, while direct costs will be incurred by Telstra in order to provide the declared service, there are a number of cost allocation methods other than that adopted by Telstra (including those suggested by the Commission and other interveners in this matter) that would enable it to recover the direct costs of investment in infrastructure necessary to provide a LSS.

140 Neither Telstra nor the other parties contended that the cost allocation issue impacted on the operational or technical requirements of Telstra's LSS to which s 152AH(1)(e) requires us to have regard.

141 We turn to the matter in s 152AH(1)(f), namely the economically efficient operation of the LSS. We consider that the economically efficient operation of that service requires that Telstra recover its direct costs of providing access to the LSS. However, it does not necessarily follow that the economically efficient operation of the service requires that those costs be recovered solely from access seekers who compete with Telstra to provide retail DSL services, that is, from LSS lines alone rather than being spread over a broader range of lines.

142 As set out in par [94] above, the concepts of allocative, productive and dynamic efficiency should be considered in relation to this factor. Allocative efficiency will be best promoted where the price of a service equals the marginal cost of providing the service. When one has regard to allocative efficiency in the long run, the price of a service should reflect the long-run marginal cost ("LRMC") of providing the service. Any departure in price from LRMC will create allocative inefficiencies. The further that departure is from LRMC, the greater will be the allocative inefficiency. We have been informed as to the quantum of average variable costs (\$2.54 per LSS line per month) but this is not necessarily the same as the LRMC of the provision of LSS. In practice, LRMC can be difficult to estimate. Accordingly, regulators have tended to use cost concepts like the TSLRIC concept as an approximation of the LRMC of providing the entire service in question. We note that Telstra's SC Model seeks to estimate the TSLRIC+ of providing the LSS.

143 Telstra is correct in saying that recovery of LSS-specific costs over a broader category of services than the LSS lines alone will involve some level of cross-subsidy from other services to the LSS. In particular, it will ensure the price of the other services will be inflated above their TSLRIC in order to ensure some level of LSS-specific costs is recovered from these services. As against this, it is necessary to consider the effect that the method of cost allocation will have on the economically efficient operation of the LSS.

144 Telstra's proposed approach would have a two-fold effect on allocative efficiency:

- on the one hand, by setting the price of the LSS at TSLRIC+, it will better preserve allocative efficiencies in the supply of this service (assuming that Telstra's costs are efficient);
- on the other hand, however, by giving itself a competitive advantage in downstream markets, it will be able to keep the price of services provided in downstream markets well above the TSLRIC+ of providing those services, thereby introducing allocative inefficiencies into the pricing of those services.

145 On balance, therefore, it is likely that spreading LSS-specific costs across LSS lines alone will introduce significant allocative inefficiencies into the provision of services in downstream markets. Given the likely size of the downstream demand for the retail DSL services, and the extent to which it is currently growing, Telstra's approach to allocating its LSS-specific costs has the potential to create substantial allocative inefficiencies in these markets. Such allocative inefficiencies are likely to outweigh substantially any allocative efficiency gains that arise from pricing the LSS at its TSLRIC+.

146 We do not consider that productive and dynamic efficiency will be best promoted by the allocation method chosen by Telstra. This method enables Telstra to recover the entirety of any costs it incurs in providing the LSS from access seekers. Given access seekers would be using the LSS to compete with Telstra retail in downstream markets where a DSL service would be provided, Telstra will have a reduced incentive to find the least cost way of providing the LSS both now and in the future. This is because any reduction in the costs of providing the service will increase the extent to which access seekers are able to compete with Telstra in downstream markets (where access prices are based on costs). This would not

be in Telstra's interests. Accordingly, Telstra's approach to allocation is unlikely to provide it with incentives to pursue productive, allocative and dynamic efficiencies.

147 As foreshadowed in par [133] and as required by s 152AH(1)(a), we now turn to have regard to whether Telstra's allocation of LSS-specific costs only to lines used, or forecast to be used, to provide its LSS promotes the long-term interests of end-users. Section 152AB(2) requires that in determining whether such an allocation promotes the long-term interests of end-users we have regard to the objectives in s 152AB(2)(c), (d) and (e) (see par [10] above).

148 We consider that Telstra's method of cost allocation is not likely to achieve the objective in s 152AB(2)(c) of promoting competition in markets for listed services. Rather, the opposite is likely to be achieved. Telstra's cost allocation method has the effect of raising rivals' costs and puts its rivals and competitors who are in the market for the supply of retail DSL services at a competitive disadvantage. The effect of Telstra's cost allocation method is that its rivals and competitors have to bear, and absorb, costs which are not incurred by Telstra in its supply of DSL services to its retail customers. This will mean that firms equally (or more) efficient at retailing services in downstream markets will be unable to compete with Telstra because of this cost disadvantage.

149 When, as required by s 152AB(4), we have regard to the extent to which Telstra's method of cost allocation will remove obstacles to end-users of listed services gaining access to listed services, we are satisfied that Telstra's method of cost allocation will not remove any such obstacles. Rather, it will create or impose commercial obstacles to end-users of DSL services gaining access to them because of the extra cost burden access seekers will have to bear and pass on to end-users.

150 In this analysis we are limiting ourselves to asking whether Telstra's charge term and its cost allocation method is reasonable having regard to the statutory matters. We are not concerned to enquire whether any other price term or cost allocation method is more reasonable. However, it is helpful in the present analysis to note that spreading the LSS-specific costs over a broader range of services would be more likely to promote competition between providers of those services, subject to those costs being pooled with other specific costs relevant to the provision of DSL services in downstream markets (eg Telstra's own internal costs of a nature similar to those of providing the LSS and ULLS-specific costs). This will

ensure that all providers of DSL services using Telstra's CAN would face the same non-retailing costs of providing their services. In turn, this would enable them to compete on their merits (or relative efficiencies) in retailing services in downstream markets.

151 However, we note that retail DSL services may be provided in a market that also includes services provided over alternative network platforms. The dominant service provided over DSL is broadband (high-speed) internet. Whilst not a perfect substitute (given, *inter alia*, the different speeds with which internet services can be provided over different network platforms), high-speed internet services provided over wireless or cable technologies are increasingly likely to become substitutes (at least to some degree) for retail DSL services. Accordingly, it is arguable that they are in the same downstream retail market. To the extent Telstra faces additional costs (ie LSS-specific costs and ULLS-specific costs) that it needs to recover from its retail DSL customers that will not be faced by its rivals who use other network platforms to provide high-speed internet services, Telstra may be placed at a relatively minor competitive disadvantage by broader cost allocation methodologies.

152 In this regard, we note that in its final decision the Commission estimated that the monthly per unit specific cost of providing the not-dissimilar ULLS amounted to a very small amount when allocated across all DSL capable lines. The actual figure is confidential and is set out in Confidential Annexure B. To the extent this number is similar to that which would result from allocating LSS-specific costs across all DSL capable lines, this would decrease significantly any competitive disadvantage (to the point of possibly being negligible) Telstra would be likely to face when recovering LSS-specific costs from its retail customers as against other carriers providing high-speed data services over other network platforms. Accordingly, the broader the downstream market within which DSL services are provided, the greater would be the number of services from which Telstra could recover a contribution towards the costs of the LSS, and the lesser would be any pro-competitive benefit that would follow from Telstra's choice of cost allocation method.

153 Overall, Telstra's approach to cost allocation is likely to have two impacts with regard to the promotion of competition in markets for listed services. On the one hand, Telstra's approach will not promote competition between it and other providers of high-speed data services using the LSS. By imposing the full costs of providing the LSS on access seekers alone, the approach adopted by Telstra is likely to reduce significantly the extent to which access

seekers would be able to compete with Telstra to provide high-speed data services using access to the LSS. On the other hand, Telstra's approach to cost allocation is, at a conceptual level, likely to be competitively neutral between Telstra and other service providers who use other platforms to provide high-speed data services. This is because it will not require Telstra to extract additional revenues from its retail customers in order to recover fully the costs of providing the LSS that its competitors using other network platforms will not need to recover. However, given the size of the LSS-specific costs, and the number of customers over which Telstra could recover these costs, this effect is likely to be immaterial. On balance, therefore, we do not believe Telstra's approach to cost allocation is likely to promote competition in downstream markets within which high-speed data services are provided.

154 We turn now to have regard to the extent to which Telstra's proposed method of allocating its LSS-specific costs is likely to result in the achievement of the objective in s 152AB(2)(d) of any-to-any connectivity. In doing so we again note the terms of s 152AB(8) and that neither Telstra nor the other parties contended that the allocation method impacted on the achievement of the objective of any-to-any connectivity. Having noted those matters, we conclude that Telstra's cost allocation methodology would neither promote, nor detract from, the achievement of the objective of any-to-any connectivity.

155 The final objective in s 152AB(2) to which we are required to have regard in our analysis of Telstra's cost allocation methodology is the objective of encouraging the economically efficient use of, and the economically efficient investment in, infrastructure by which listed services are supplied: s 152AB(2)(e). In determining the extent to which the methodology is likely to achieve that objective we are also required to have regard to the matters set out in s 152AB(6) (see par [12] above). It may be said that the cost allocation method used by Telstra is likely to result in achieving the objective of encouraging the economically efficient use of and the economically efficient investment in the infrastructure by which the LSS is supplied because it enhances Telstra's return from the LSS infrastructure. But we do not consider that the allocation of costs in this way is properly described as "efficient" for the reasons to which we have referred in respect of the matter set out in s 152AH(1)(f). Allocative, productive and dynamic efficiencies are not likely to be encouraged by Telstra's cost allocation method.

156 Efficient investment in the infrastructure used to provide the LSS should be ensured provided Telstra is able to earn a normal return on its investment in this infrastructure. To the extent that the WACC applied in the tilted annuity formula accurately reflects a normal return on investment, and Telstra is able to recover its costs from LSS lines only, it should be able to ensure it receives a normal return on whatever investment it has made in the capital it uses to provide the LSS. However, for the reasons outlined in our consideration of the factor in s 152AH(1)(f) above, the approach used by Telstra may not provide it with appropriate incentives to make efficient investments in this capital. It will have an incentive to adopt inefficient means of providing the LSS as this will increase the costs of rival providers of retail DSL services. In this respect, it will not have an incentive to make efficient investments in the infrastructure necessary to provide these services.

157 Further, Telstra can recover its costs of providing the LSS if they are spread across a broader range of services than simply the LSS alone, and it is not necessary for Telstra to adopt the approach it has taken to allocating costs in order to recover whatever costs (efficient or otherwise) it incurs in providing the LSS.

158 We also consider that Telstra's approach to cost allocation has the potential to discourage efficient investments by access providers in infrastructure used to provide retail DSL services. Telstra's approach to allocating costs is likely to distort the relative prices of the LSS and other wholesale options available to access seekers such as Telstra's wholesale ADSL service. As noted at par [29], Telstra's wholesale ADSL service and the LSS are alternative services that access seekers can use to provide retail DSL services. They are distinguished, however, by the extent of infrastructure investment required by access seekers in order to utilise these services to provide retail DSL services. In particular, where access seekers acquire the LSS, they are required to provide certain infrastructure of their own. To the extent that Telstra's approach to allocating costs raises the price of the LSS relative to that of Telstra's wholesale DSL service, this may have the effect of discouraging efficient investments in this infrastructure by access seekers. Given that Telstra's approach to allocating costs limits the extent to which access seekers can use the LSS to compete in downstream retail markets to provide retail DSL services, it is likely it will have the effect of discouraging efficient investment by access seekers in some of the infrastructure necessary to provide retail DSL services.

159 As we have noted earlier (par [100]), the matters set out in s 152AB(6)(a) and (b) were the subject of little consideration by the parties. We do not consider that Telstra's approach to cost allocation is impacted by a consideration of whether it is technically feasible for the LSS to be supplied. It was not in issue that the supply of the LSS was technically feasible, whatever be the cost allocation methodology used by Telstra. Further, as noted earlier, Telstra's legitimate commercial interests are served so long as Telstra is able to receive a normal return on its investment.

160 It is not necessary for Telstra to recover its LSS costs from LSS lines only in order for it to be able to take advantage of whatever economies of scope and scale it may have due to the size of its customer base and the breadth of services it provides using its CAN and other infrastructure. Even if LSS-specific costs are spread over a broader demand allocation base, Telstra will likely still have more retail customers and provide more retail services than its rivals. It can bring whatever economies of scale and/or scope that it derives from these advantages to bear when competing to be a more efficient retailer of services to end-users. Put another way, a broader cost allocation base should not deprive it of the ability to take advantage of economies of scale and scope at the retail level when competing in the provision of telecommunications services provided over its CAN to end-users.

161 As we noted in respect of the levelisation issue, it is no part of our task to decide whether one form of cost allocation is more reasonable than another form of cost allocation. Our task is to determine whether the manner in which Telstra has determined its monthly per unit costs is reasonable having regard to the statutory matters to which we have referred. We have reached the conclusion that it is not so reasonable. However, it follows from our analysis that a reasonable approach to cost allocation should go beyond allocating the costs of providing the LSS to LSS lines alone, and that any method should allocate costs at least over active DSL lines. We leave open for later consideration whether cost allocation should be over all active or potentially active DSL lines. However, we note that, at the least, the cost allocation should be over all active DSL lines.

162 On balance, we do not consider that allocating costs across only LSS lines is likely to give rise to a per unit cost estimate for providing the LSS (and a charge determined in reliance upon this cost estimate) that is reasonable. Allocation of costs on this basis is unlikely to:

- be in the interests of access seekers that have a right to use the declared service;
- promote competition between Telstra and other service providers that use access to the LSS to provide DSL services;
- promote productive and dynamic efficiency;
- promote efficient investment in the infrastructure used to provide listed services.

163 Further, should Telstra not be constrained by competition from providers of high-speed data services using other network technologies, its approach to allocating its LSS-specific costs would be:

- likely to enable it to earn returns from its pricing of retail services that would ensure it received more revenue than was necessary to meet its legitimate business interests;
- unlikely to promote allocative efficiency;
- unnecessary in order to ensure it recovered the direct costs of providing the LSS.

164 If, however, Telstra is constrained by competition from providers of high-speed data services using other network technologies, it is arguable its approach to allocating costs would in principle be likely:

- to promote competition between Telstra and providers of high-speed data services using other network technologies;
- to be necessary in order to ensure Telstra's legitimate business interests are met.

165 However, the extent to which Telstra would need to increase its retail charges on a per line basis is, in these circumstances, likely to be trivial such that these considerations do not weigh heavily in our consideration of this issue.

166 Having undertaken this analysis we are satisfied that consistently with the statutory matters to which we have referred we do not consider that Telstra's approach to cost allocation is reasonable when it is limited to LSS active lines and LSS lines forecast to be active over the relevant levelisation period.

CONCLUSION

167 It follows from our analysis and reasoning that we are not satisfied that the \$9.00 monthly charge in Telstra's access undertaking is reasonable. We are not satisfied that it is reasonable when we have regard to the matters set out in ss 152AH and 152AB of the Act. We are not satisfied that Telstra's method of determining its LSS-specific costs, by which that monthly charge is to be assessed, is reasonable and, in particular, we are not satisfied that its method of levelising and allocating its LSS-specific costs is reasonable having regard to the matters set out in ss 152AH and 152AB.

168 It is not necessary, therefore, to consider the extensive issues canvassed as to the composition of Telstra's cost structure.

169 In written submissions filed in reply after the hearing, Telstra acknowledged that the task for the Tribunal was to determine whether the \$9.00 monthly charge was reasonable which involved enquiring whether the method employed by Telstra at each step in the derivation of its LSS-specific costs estimate was reasonable having regard to the matters in ss 152AH and 152AB.

170 Telstra then submitted that if we concluded that any step taken by Telstra in the derivation of its unit costs was not reasonable in the sense referred to, that was not the end of our enquiry because:

- (a) there was considerable material before us which demonstrated the effect on the unit costs estimate of adopting one rather than another approach to the numerous steps that constitute the derivation of the cost estimate;
- (b) if we concluded that an approach adopted by Telstra at one of those steps was not reasonable, then we had the material and the means to determine the consequences for the estimation of unit costs by the adoption of an alternative approach to the one used in Telstra's estimate;
- (c) these consequences were generally most easily determined by manipulation of the SC Model to demonstrate the sensitivities surrounding particular assumptions or approaches;

- (d) if we formed the view that several steps employed by Telstra were not reasonable then any sensitivity analysis would have to consider the compound effect of the changes to the various inputs in the model before the cost estimate could be fairly compared to the price term so as to conclude whether the latter was reasonable or not;
- (e) it would be neither sufficient nor appropriate for us to look at one only of the steps in the derivation of the unit cost estimate and say: by taking an alternative approach on that step alone (such as levelisation) the unit costs estimate falls to \$7.00, hence the \$9.00 term is not reasonable;
- (f) it would be necessary to consider whether each step was reasonable, and if others were also held to be not reasonable, to consider the combined effects of accommodating the alternative approaches on each of those steps. In this respect Telstra remained willing to assist the Tribunal in this regard by performing the necessary calculations;
- (g) if, on applying a methodology we considered reasonable, the \$9.00 term exceeded the costs arrived at by that methodology, then we should consider the remaining methodologies employed by Telstra and determine whether, having regard to those methodologies, the \$9.00 term might nevertheless be reasonable. For example, if we were to determine that Telstra's approach to levelisation was not reasonable, then we might look at other methodologies employed by Telstra (such as its estimate of the WACC) in considering the impact of the levelisation approach.

171 We do not accept Telstra's submission to the extent that it requires us to consider alternative approaches to its cost methodology if we find that the approach to its cost methodology that it advanced before the Commission and before us is not reasonable. Further, we do not agree that the conclusions we have reached as to Telstra's levelisation and cost allocation methodologies require us to consider Telstra's remaining methodologies and inputs to see whether the \$9.00 monthly charge might nevertheless be reasonable.

172 In order to accept Telstra's access undertaking we have to be satisfied affirmatively that the terms and conditions specified in the undertaking are reasonable: s 152BV(2)(d). We are not so satisfied in relation to Telstra's levelisation and cost allocation methodologies. We have explained the consequences which follow in relation to the determination of Telstra's per unit costs. It does not alter our conclusions if we consider Telstra's other cost methodologies and

its inputs into those methodologies as well as its inputs into the costs which are the subject of levelisation and cost allocation. For the purposes of our consideration of Telstra's levelisation and cost allocation methodologies we have assumed, but not decided, in Telstra's favour that all its inputs and other methodologies are reasonable.

173 Our reasoning in relation to Telstra's levelisation and cost allocation methodologies and our conclusions that they are not reasonable, having regard to the matters identified in ss 152AH and 152AB, demonstrate why we have concluded that Telstra's \$9.00 monthly charge is not reasonable. That conclusion will not be affected by any further consideration of Telstra's inputs or its other cost methodologies.

174 The determination of the Tribunal is that the decision of the Commission to reject Telstra's access undertaking is affirmed.

I certify that the preceding one hundred and seventy-seven (174) numbered paragraphs are a true copy of the Reasons for Determination herein of the Tribunal.

Associate:

Dated: 2 June 2006

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Solicitor for Macquarie Telecom Pty Ltd, PowerTel Limited and Primus Telecommunications Pty Ltd:	Nicholls Legal
Dates of Hearing:	5, 6 and 7 April 2006
Date of Determination:	2 June 2006

Annexure A: Glossary

ADC	Access deficit contribution. Where retail price regulations meant that Telstra was unable to recover the full costs of its CAN from customer access (or “line rental”) charges alone, decisions by the Commission have allowed Telstra to recover an “access deficit” by way of a mark-up on its charge to a service provider seeking access to its CAN .
ADSL	Asymmetric digital subscriber line service. An ADSL service is a particular form of DSL service that uses a dedicated line from a customer’s premises to a network exchange to provide an ‘always on’ data service with downstream access speeds over 1.5 Mbits per second and upstream speeds typically one quarter of the downstream rate, while supporting an independent PSTN dial-up voice service over the same line. It is asymmetric as it downloads data (i.e. sends data to the customer premises) at a faster rate than it uploads it (i.e. sends data from the customer premises).
CAN	Customer access network. The CAN enables the connection of telephones and other customer premises equipment to switching technology in exchanges.
DSL	Digital subscriber line service. A DSL service is provided by a digital telecommunications technology that enables high speed data communication over the copper wires/telephone lines that run between an end-user’s premises and an exchange.
IEN	Inter-exchange network. The network connecting exchanges to each other.
LRMC	Long-run marginal cost.
LSS	Line sharing service. The LSS (a declared service) is a particular form of line sharing that involves an access provider supplying a PSTN voice service to a customer and an access seeker supplying a different service (usually broadband internet access) to the same customer over a higher frequency part of the same line.
LTIE	Long-term interests of end-users.
O&M costs	Operational and maintenance costs.

Multiplexer	A multiplexer combines two or more signals into a composite data stream for transmission on a single channel.
PIE II model	PSTN Ingress Egress II model. A model used by Telstra to determine, on the basis of various inputs including traffic volumes and customer locations, the elements which it contends are necessary to construct a PSTN in Australia.
PSTN	Public switched telephone network. A predominantly copper-based network that can be used to provide a number of services such as local and long-distance calls (both domestically and internationally) and data services such as an ADSL service. The PSTN is comprised of both the CAN and the IEN .
SSS	Spectrum sharing service. An alternative term for line sharing service.
SC Model	Specific Costs Model. A model used by Telstra to determine what it contends is a reasonable estimate of the specific costs incurred in supplying the LSS .
TSLRIC	Total service long-run incremental cost.
TSLRIC+	Total service long-run incremental cost plus a contribution towards the recovery of indirect and common costs.
ULLS	Unconditioned local loop service. A declared service that provides access to unconditioned cable (usually a pair of twisted copper wires sans dial tone or other carriage service) between an end-user and a telephone exchange. The access seeker uses its own equipment in an exchange to provide a range of services, including traditional voice services and high-speed internet access, to its end-users.
WACC	Weighted average cost of capital.
xDSL	xDSL embraces the ‘family’ of DSL services such as ADSL and HDSL (high-speed DSL).