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Commission

Assessment of Telstra's LSS undertaking relating to connection and disconnection charges

Final Decision

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Abbreviations

AAPT	AAPT Limited
ACCC	Australian Competition and Consumer Commission
ACIF	Australian Communications Industry Forum
Act	*Trade Practices Act 1974*
CAM	Customer access module
CAN	Customer access network
CCC	Competitive Carriers Coalition
CMUX	Customer multiplexer
Consultel	Consultel BWP Pty Ltd
Consultel interim report	Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—interim report*, November 2005.
Consultel final report	Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—final report*, February 2006.
core services	PSTN Originating and Terminating Access Services, Unconditioned Local Loop Service and Local Carriage Service
DAC	Data activation centre
Discussion paper(s)	ACCC, *Telstra's undertakings for the Unconditioned local loop service—Discussion paper*, March 2005. ACCC, *Telstra's undertakings for the Line sharing service—Discussion paper*, March 2005.
Draft decision	ACCC, *Assessment of Telstra's ULLs and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005.
DSL	Digital subscriber line
EU	European Union
First BT request	ACCC, *Telstra's 13 December 2004 access undertakings relating to ULLS and LSS connection and disconnection charges – Request for further information under section 152BT of the Trade Practices Act 1974*, 12 August 2005.
GQAAS	Gibson Quai-AAS Pty Ltd

IDS	Integrated Deployment Solutions
IRIM	Integrated remote integrated multiplexer
LAS	Local access switch
LCS	Local Carriage Service
LSS	Line sharing service
LTIE	Long Term Interests of End–users
Macquarie	Macquarie Telecom Pty Ltd
MNMs	Managed network migrations
NECG	Network Economics Consulting Group
Optus	SingTel Optus Pty Ltd
PIE	PSTN Ingress and Egress model
POI	Point of interconnection
Primus	Primus Telecommunications Pty Ltd
PSTN	Public Switched Telephone Network
PSTN O/T	PSTN Originating and Terminating Access Services
RAF	Regulatory accounting framework
RIM	Remote integrated multiplexer
RSS/RSU	Remote switching stage/ remote switching unit
SAOs	Standard Access Obligations
STD	Subscriber Trunk Dialling
Telstra	Telstra Corporation Limited
Telstra service	Service of a particular technical attribute as specified by Telstra in the undertaking
TOW	Ticket of work
Tribunal	Australian Competition Tribunal
TS	Transit switch
TSLRIC	Total service long-run incremental cost

TSLRIC+	Total service long-run incremental cost plus indirect costs
ULLS	Unconditioned Local Loop Service
Undertakings	Telstra's ULLS and LSS access undertakings lodged with the Commission on 13 December 2004.
WCSG	Wholesale Customer Service Group

Glossary

Access Provider	Carrier or carriage service provider who supplies declared services to itself or other persons — see s. 152AR of the Act.
Access Seeker	Service provider who makes, or proposes to make, a request for access to a declared service under s. 152AR of the Act.
Customer access network	The network which enables the connection of telephones and other customer premises equipment to switching technology. It consists of a network of conduits and pipes in the ground with a mixture of cables containing copper wires and optical fibres. It has two parts – the distribution network and the feeder network.
Distribution network	That part of the customer access network connecting the distribution point (typically a pillar) to the network termination point.
Exchange	A generic term for a major node in an exchange service area (e.g. an IRIM, RSS/RSU, LAS, TS).
Feeder network	That part of the customer access network connecting the exchange to the distribution point (typically a pillar).
Integrated remote integrated multiplexer	This device consists of a protective housing, cable and optical fibre terminating strips, and multiplexing equipment, erected in street-based housing. 'Integrated' means that the housing contains multiplexers that enable different services to be carried over the same transmission cable (i.e. special services, telephone services, public telephone services, ISDN services are all carried over the same transmission cable/fibre). The transmission protocol is integrated with the telephone exchange software.
Inter-exchange network	The network connecting exchanges to each other.
Local access switch	This equipment provides ring current, dial

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

Decision on Telstra’s LSS connection and disconnection charge undertaking

The ACCC has given consideration to the ordinary access undertaking submitted by Telstra on 13 December 2004 relating to connection and disconnection charges for the line sharing service. The ACCC has considered the undertaking pursuant to the matters set out in section 152BV(2) of the *Trade Practices Act 1974*. The ACCC is not satisfied that the terms and conditions specified in the undertaking are reasonable. Accordingly, as set out in 152BV(2), the ACCC must not accept the undertakings.

The ACCC's decision is to reject the LSS connection and disconnection charge undertaking that was submitted by Telstra on 13 December 2004. Pursuant to section 152BU(4), this decision paper constitutes written notice of the decision to reject the undertaking and sets out the reasons for the ACCC's decision to reject the undertaking.

Summary

Telstra Corporation Limited (Telstra) lodged access undertakings with the Australian Competition and Consumer Commission (ACCC) on 13 December 2004. The undertakings specified certain terms and conditions which Telstra undertook to meet its standard access obligations (SAOs) in respect of the unconditioned local loop service (ULLS) and the line sharing service (LSS).

The four undertakings related predominantly to the price of supply. Two undertakings, one for each service, related to the monthly charge for the services, while the other two related to the connection/disconnection charge for each service. The ACCC issued a discussion paper in March 2005 and received a number of submissions on all four undertakings. The ACCC's draft and final decisions on the monthly charge undertakings were released in August and December 2005 respectively.

Telstra had not previously provided undertakings relating to connection/disconnection charges for the ULLS and LSS. In contrast, the ACCC has made a series of decisions on monthly charges for the same services. At the time of release of this final decision on connection charges, the ACCC is assessing another Telstra ULLS monthly charge undertaking that was lodged in December 2005.

The ACCC released a draft decision in December 2005 to reject Telstra's ULLS connection charge and LSS connection/disconnection charge undertakings. Following that decision, Telstra withdrew its ULLS connection charge undertaking. The ACCC will therefore not go on to make a final decision on that undertaking.

Accordingly, this report is limited to the ACCC's consideration of and final decision regarding **Telstra's LSS connection/disconnection undertaking**.

Under Part XIC of the *Trade Practices Act 1974* (the Act), the ACCC must either accept or reject the undertaking. The ACCC follows an open and public process in assessing the undertakings and allows all interested parties to express their views and provide relevant information. The ACCC has, inter alia, considered Telstra's connection/disconnection undertakings and their supporting submissions, and all submissions received in response to the ACCC's Discussion Paper and Draft decision. Subject to confidentiality restrictions, the ACCC has published copies of these documents on its website www.accc.gov.au.

The ACCC's *final* decision is to reject Telstra's LSS connection/disconnection undertaking.

The ACCC has reached this view to reject Telstra's LSS undertaking after concluding that, in considering the statutory criteria in s. 152AH of the Act, it is not satisfied that the terms and conditions of the undertaking are reasonable. Key findings that informed this view include findings that Telstra's proposed LSS connection price is not appropriate, that there are limited circumstances where a separate disconnection charge would be warranted and that, in any event, Telstra's proposed charge for disconnection of a LSS would not be appropriate.

The ACCC's draft decision raised concerns in relation to uncertainty about the application of the proposed charges for other than single connection of the LSS. The ACCC has noted that the undertaking does not expressly exclude the proposed charges from applying to larger scale 'Managed Network Migrations' (MNMs),

where large numbers of ULLS and LSS connections are performed in a managed process. Telstra has provided further assurances on this issue in response to the ACCC's draft decision. The ACCC accordingly considers that its concerns on this issue have been to an extent met, although it would prefer that the undertaking itself specified that the charges would not apply to MNMs.

1. Introduction

Line sharing refers to a situation where two separate telecommunications carriers or service providers supply two different services to the same end user over one copper pair. Line sharing uses the fact that different telecommunications services can be supplied on different frequencies on the same wire. In particular, the line sharing service (LSS) involves the 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.

The LSS was "declared" by the ACCC under Part XIC of the *Trade Practices Act 1974* (the Act) in August 2002.[1]

Declaration of the LSS has two important consequences. Firstly, Telstra is required to supply the LSS to all service providers upon request. Secondly, if Telstra and a service provider cannot agree on the terms and conditions of supply, one of them can notify the ACCC of a dispute. The ACCC can then arbitrate and resolve the dispute.

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

Telstra lodged access undertakings for the LSS and unconditioned local loop service (ULLS) with the ACCC on 13 December 2004. The undertakings specified certain terms and conditions by which Telstra undertook to meet its standard access obligations (SAOs) for the ULLS and LSS. Telstra lodged four separate undertakings—for ULLS monthly charges, for ULLS connection charges (which included a discounted cost of disconnection), for LSS monthly charges and for LSS connection and disconnection charges.

The ACCC made its final decisions to reject the two monthly charge undertakings and draft decisions to reject the two connection charge undertakings in December 2005. Following the ACCC's draft decision on the two connection/disconnection undertakings, Telstra withdrew its ULLS connection charge undertaking. The ACCC will not be making a final determination on that undertaking.

This report contains the ACCC's final decision to reject the LSS connection and disconnection charge undertaking.

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[1] ACCC, *Line sharing service – Final decision on whether or not a line sharing service should be declared under Part XIC of the Trade Practices Act 1974*, August 2002.

2. Background

2.1. Declaration and the regulatory framework

The LSS was declared under Part XIC of the Act in 2002.

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

Section 152AR of the Act sets out the SAOs applying to those carriers and carriage service providers supplying the declared service to themselves or others. In summary,[2] if requested by a service provider, the carrier/carriage service provider is required to:

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

The terms and conditions upon which a carrier/carriage service provider is to comply with these obligations are as agreed between the parties. In the event that they cannot agree, one of them can notify the ACCC of an access dispute under s152CM of the Act. Once notified, the ACCC can arbitrate and make a determination which resolves the dispute. The ACCC's determination need not, however, be limited to the matters specified in the dispute notification. It can deal with any matter relating to access by the service provider to the declared service.[3]

The Act enables a carrier/carriage service provider to resolve potentially contentious issues with the ACCC outside the arbitral process. Amendments to the Act in 2002 encourage the lodgement of undertakings as the main means of addressing access to declared services.[4] The process requires that the carrier give the ACCC an access undertaking under s152BS of the Act, setting out the terms and conditions on which it proposes to comply with particular SAOs.

The ACCC can either accept or reject an access undertaking. Section 152BV of the Act sets out five criteria that must be fulfilled to allow the ACCC to accept an access undertaking. In summary, the criteria are that:

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[2] There are some exceptions to these obligations. These are set out in s152AR, and in any exemption issued under s152AS or s152AT of the Act.

[3] *Trade Practices Act 1974* (Cth) s. 152CP(2).

[4] Explanatory Memorandum, *Telecommunications Competition Bill 2002*, p. 1.

- the ACCC must have published the undertaking, invited comment and considered any submissions received
- the ACCC must be satisfied the undertaking is consistent with the SAOs
- the ACCC must be satisfied that the undertaking is consistent with any Ministerial pricing determination
- the ACCC must be satisfied that the terms and conditions specified in the undertakings are reasonable
- the undertakings cannot apply for more than three years.

If accepted by the ACCC, the undertaking becomes binding on the carrier/carriage service provider. Hence if a carrier/carriage service provider breaches the undertaking, the Federal Court can make an order requiring compliance with the undertaking, the payment of compensation, or any other order that it thinks fit. Once an undertaking is in operation, the ACCC must not make an arbitral determination that is inconsistent with the undertaking.[5]

2.2. The declared line sharing service

Line sharing is where two separate carriers provide separate services over a single metallic pair (or 'line'). A metallic pair can support a broad range of services by utilising the full spectrum of the line. Traditionally, only 3.1 kHz, a relatively small part of a metallic pair's useable spectrum of several MHz, was used to provide voice services. Until recently, the rest of the spectrum remained unused. With the development of xDSL technology,[6] the remaining part of the spectrum can now 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 spectrum is normally split (or shared) so that one carrier or service provider provides the voice services over the line, while another carrier provides high-speed data services through the use of its own xDSL technology. This is also sometimes referred to as spectral unbundling or spectrum sharing.

The LSS considered during this assessment is a specific form of line sharing. The ACCC has adopted the following service description:

> The High Frequency Unconditioned Local Loop Service is the use of the non-voice band frequency spectrum of an 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.

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5 *Trade Practices Act 1974* (Cth) s. 152CQ(5).

6 xDSL refers to the 'family' of digital subscriber line services (e.g. ADSL=Asymmetric DSL, HDSL = High bit rate (or high-speed) DSL etc). For instance, ADSL uses a dedicated line from the customer premises to a network exchange to provide an 'always on' data service with downstream access speeds capable of over 1.5 Mbits per second and upstream speeds typically one quarter of the downstream rate. At the same time an independent public switched telecommunications network (PSTN) dial-up voice service is supported over the same line.

Hence, an LSS would involve the access provider providing a PSTN voice service to an end-user, whilst providing access to another carrier (the access seeker) to simultaneously provide services to the same end-user over the high-frequency part of the wire. For example, if Telstra is the access provider, it could deliver voice services to end-users, while a second carrier simultaneously provided high-speed data services (such as ADSL) over the same line.

3. Summary of the undertaking

3.1. Terms and conditions of the undertakings

In assessing an undertaking, it is necessary to form a view about its terms and conditions.

Telstra's LSS connection/disconnection undertaking specifies limited price and non-price terms and conditions upon which it undertakes to meet its SAOs to supply the the LSS. If accepted, the undertaking would apply until 30 June 2006.

The undertaking was lodged with the ACCC on 13 December 2004, along with undertakings relating to ULLS and LSS monthly charges (which were assessed separately) and ULLS connection charges (which Telstra withdrew). Telstra did not provide public versions of its supporting submissions until 2 March 2005, which introduced significant delay into the start of the public consultation process.

3.2. LSS connection/disconnection undertaking

3.2.1. Telstra's proposed prices

Telstra has proposed to charge $90 (exclusive of GST) per LSS connection for 2004-05 and 2005-06. The proposed charge is uniform across the period.

Telstra's undertaking submits that the proposed prices should be accepted primarily because:

- they are consistent with current commercial arrangements
- the proposed prices are significantly below Telstra's estimates of efficient costs, and are therefore a generous offer.[7]

The proposed LSS connection charge does not vary between geographic bands. Telstra's submission argues that averaged prices across geographic areas should be accepted as they are consistent with commercial practice and there is likely to be little difference in connection costs in different geographic regions.

3.2.2. Telstra claimed LSS efficient costs

Telstra's estimated efficient costs of supplying the LSS for 2004-05 and 2005-06 are outlined in Table 3.2.1 below.

Table 3.2.1 [c-i-c Telstra's estimated efficient LSS connection costs

Cost elements	Costs per LSS			
	Band 1	Band 2	Band 3	Band 4
Labour to travel to the exchange and do the jumpering	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Vehicle	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Materials	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

[7] Telstra, *Telstra's submission in support of the SSS monthly charges undertaking dated 13 December 2004*, 2 March 2005, p. 2.

Tool box	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Back-of-house[8]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total cost	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**
Average total cost[9]	**$110.92**			

Table 3.2.2 [c-i-c Telstra's estimated efficient LSS disconnection costs

Cost elements	**Costs per LSS**			
	Band 1	**Band 2**	**Band 3**	**Band 4**
Labour to travel to the exchange and do the jumpering	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Vehicle	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Tool box	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Back-of-house[10]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Total cost	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**	**[c-i-c]**
Average total cost[11]	**$92.34**			

In its submission in support of the LSS undertaking, Telstra argues that it always incurs disconnection costs even if the end-user then chooses to acquire services from another LSS access seeker, as the connection and disconnection requests are received separately. Telstra submits that it must disconnect the service straight away in order to prevent loss or degradation of the voice service it is supplying to the end-user.

3.2.3. Non-price terms

Telstra's supporting documents outline changes to the non-price terms and conditions from the LSS undertaking it lodged on 1 September 2003. The amendments relate to:

- network modernisation provisions to clarify that they do not over-ride certain other terms and conditions of supply, as a result of the ACCC's previously expressed concerns
- provisions regarding compliance with the Network Deployment Rules, as a result of the ACCC's previously expressed concerns
- the inclusion of a requirement that an underlying voice service must be in operation.

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8 In July 2005, Telstra revised the way in which it claimed back-of-house costs in its original submissions in support of the undertakings. However it did not explicitly seek to have the revised costs included in its modelling and the ACCC has left Telstra's previously claimed costs in for the purpose of this table. The revised costs are further discussed below in Chapter 6.

9 Telstra's averaged total cost is based on the distribution of copper pairs between the four geographic areas.

10 See footnote 8 above.

11 See footnote 9 above.

4. Legislative Background

4.1. Form and contents of an undertaking

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

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

- an undertaking containing terms and conditions that are specified in the undertaking, or
- an undertaking where the terms and conditions are specified by adopting a set of model terms and conditions set out in the telecommunications access code, as in force at that time.[12]

Telstra's undertaking falls into the first category.

4.2. Criteria for accepting an undertaking

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

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

4.2.1. Public process

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

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

ACCC's Discussion Paper

In accordance with sub-section 152BV(2)(a) of the Act, the ACCC published the Undertakings and, at the same time, released its *Telstra's Undertaking for the Line Sharing Service – Discussion Paper*,[13] inviting interested parties to make submissions over a prescribed consultation period. The consultation period formally expired on 20 May 2005.

Submissions from Telstra

Telstra has made a series of submissions to the undertaking assessment process. These include initial submissions provided in February 2005 in support of the undertakings,

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[12] *Trade Practices Act 1974* (Cth) ss. 152BS(3) and (4). No code is currently mandated under Part XIC.

[13] ACCC, *Telstra's Undertaking for the Line Sharing Service – Discussion Paper*, March 2005.

submissions in response to the Discussion Paper provided in May 2005, supplementary submissions provided in June 2005, responses to information requests made by the ACCC pursuant to s152BT of the Act and submission to the draft decision provided in February 2006. These submissions are listed in Appendix A.

Consultation after release of the ACCC's Discussion Paper

The ACCC also received a number of submissions from interested parties following the release of the Discussion Paper. A list of submissions made and supplementary submissions provided in response to the ACCC's information requests by these parties is also provided in Appendix A. To the extent possible, the ACCC has posted electronic copies of submissions on its website (http://www.accc.gov.au). Where parties have provided submissions in confidence or where parts of submissions have contained confidential information as claimed by submitters, this confidential information has not been included on the website.

Consultation after release of the ACCC's Draft decision

The ACCC's draft decision was released on 21 December 2005. Two submissions were made to the ACCC in response to the draft decision, and are listed in Appendix A and included on the website to the extent possible.

Use by the ACCC of an expert consultant

The ACCC employed an expert consultant, Dr Paul Brooks of Consultel BWP Pty Ltd (Consultel), to assist it with respect to the various technical and operational requirements needed to make connections and disconnections of the ULLS and LSS.[14] More particularly, assistance was sought to assess the technical and operational assumptions which underpin Telstra's purported connection and disconnection costs used by Telstra to justify the charges it proposes be levied on access seekers for ULLS and LSS connection and disconnection.

The ACCC considered it preferable that it receive independent expert advice and assessment on relevant technical and operational issues to assist it in its undertakings assessment. Access seekers also submitted their own technical analyses on the appropriateness of Telstra's proposals and these too needed to be scrutinised.

The employment of Consultel was made known to the industry by correspondence with interested parties in late June 2005. The ACCC advised that Consultel's Interim Report on technical and operational matters relevant to the undertakings assessment would be made available for public comment as part of responding to the ACCC's draft decisions on the undertakings.

Consultel's Interim Report was accordingly included as Appendix C to the draft report. Parties were invited to comment on the Consultel Interim report when making responses to the draft decision. Following the submissions to the draft decision, Consultel revised its report. The Consultel Final report is attached as Appendix B to this final decision, and Consultel's response to particular comments in Telstra's response to the ACCC's discussion paper is attached as Appendix C.

[14] For example, time taken to effect jumpering work and to travel to exchanges.

4.2.2. Consistency with the standard access obligations

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

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

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

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

4.2.3. Consistency with Ministerial pricing determination

Division 6 of Part XIC of the Act provides that the Minister may make a written determination setting out the principles dealing with price-related terms and conditions relating to the SAOs.[15]

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

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[15] *Trade Practices Act 1974* (Cth) s. 152CH. 'Price-related terms and conditions' means terms and conditions relating to price or a method of ascertaining price.

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

4.2.4. Whether terms and conditions are reasonable

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

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

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

The ACCC may also consider any other relevant matter.[16]

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

Long-term interests of end-users

The ACCC has published a guideline explaining what it understands is meant by the 'long-term interests of end-users' in the context of its declaration responsibilities.[17] A similar interpretation would seem to be appropriate in the context of assessing an undertaking. However the ACCC notes that recent revisions to the Act have amended the definition of the long-term interest of end-users.

In the ACCC's view, particular terms and conditions promote the interests of end-users if they are likely to contribute towards the provision of goods and services at lower prices, higher quality, or towards the provision of greater diversity of goods and services.[18]

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[16] Section 152AH does not use the expression 'any other relevant matter'. However, s. 152AH(2) states that the matters listed in s. 152AH(1) do not limit the matters to which the ACCC may have regard. Thus, the ACCC may consider any other relevant matter.

[17] ACCC, *Telecommunications services — Declaration provisions: a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999.

[18] Ibid, pp. 32-33.

To consider the likely impact of particular terms and conditions, the Act requires the ACCC to have regard to whether the terms and conditions are likely to result in the achievement of the following objectives:[19]

- the objective of promoting competition in markets for carriage services and services supplied by means of carriage services
- for carriage services involving communications between end-users, the objective of achieving any-to-any connectivity
- the objective of encouraging the economically efficient use of, and economically efficient investment in, infrastructure by which carriage services and services provided by means of carriage services are supplied, or any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

The phrase 'economically efficient use of, and economically efficient investment in... infrastructure' obviously requires consideration of the concept of economic efficiency. This has three components:

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

Recent amendments to the Act add to the previous matters for consideration a new consideration that when considering the economically efficient use of and investment in infrastructure within the context of the LTIE, regard must be had to the incentives for investment in any other infrastructure by which services are, or are likely to become, capable of being supplied. Regard must also be had to the risks involved in making that investment.

Legitimate business interests and direct costs

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

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

> ... the references here to the 'legitimate' business interests of the carrier or carriage service provider and to the 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for

[19] *Trade Practices Act 1974* (Cth) s. 152AB(2).

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

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

Interests of persons who have rights to use the declared service

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

While s. 152AH(1)(c) directs the ACCC's attention to those persons who already have rights to use the declared service in question, the ACCC can also consider the interests of persons who may wish to use that service.

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

Consideration of the economically efficient operation of, and investment in, carriage services, telecommunications networks or a facility requires consideration of the three aspects of economic efficiency set out earlier. The concept would not appear to be limited to the operation of carriage services, networks and facilities by the carrier or carriage service provider supplying the declared service, but would seem to include those operated by others (e.g. service providers using the declared service).

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

In general, there is likely to be considerable overlap between the matters that the ACCC takes into account in considering the long-term interests of end-users and its consideration of this matter.[20]

The question of whether the terms and conditions set out in Telstra's undertakings are reasonable is considered in Chapter 6.

4.2.5. Expiry date

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

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[20] Relevantly, in considering whether particular terms and conditions will promote the long-term interests of end-users, the ACCC must have regard to their likely impact on the economically efficient use of, and economically efficient investment in, the infrastructure by which carriage services and services provided by which listed services are supplied or are, or are likely to become, capable of being supplied.

The Undertakings are to expire by no later than 30 June 2006. The expiry dates in the Undertakings are therefore within the 3 years required by the Act.

4.3. Procedural matters

4.3.1. Confidentiality

In arriving at its final view, the ACCC has relied on commercial-in-confidence information supplied by Telstra and interested parties. The ACCC has assessed this material according to its policy on treatment of information[21] and has determined that, in most instances, it should not reproduce that material in this report.

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

The ACCC recognises that its decision making processes should be as transparent as practicable. In this regard it notes that interested parties can obtain the commercial-in-confidence information from the provider of that information upon the giving of appropriate undertakings. The ACCC notes that interested parties have been able to negotiate such undertakings for access to most of the confidential information that has been relied upon by the ACCC.

The ACCC notes that, unless it can corroborate commercial-in-confidence information in some way, it is constrained in the weight that it can give to information that has not been subject to broader industry scrutiny.

4.3.2. Information relied upon

The ACCC, in assessing the Undertaking, has primarily used the supporting submissions of Telstra, the submissions of Telstra and interested parties to the Discussion paper and Draft decision, and the reports provided by Consultel. It has also referenced other documents. The documents are listed at Appendix A.

4.3.3. Decision-making period

The ACCC has a 6 month statutory time frame by which it must make a decision to accept or reject an access undertaking. For the purposes of calculating the 6 month timeframe certain periods of time are disregarded. In particular, the time it takes between when the ACCC makes a request for further information (under s.152BT of the Act) and when an access provider has fulfilled the information request is disregarded, as is the time between when the ACCC publishes an undertaking (and seeks submissions[22]) and the due date for receipt of those submissions.

In the assessment of the LSS connection and disconnection charge undertaking, the 'clock has been stopped' while s. 152BT information requests have remained unfulfilled and during the Consultation Period. This resulted in the end of the six-month assessment period being significantly extended.

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[21] ACCC, *Collection and Use of Information*, 2000.

[22] *Trade Practices Act 1974* (Cth) s. 152BV(2)(a).

5. Consistency with standard access obligations

5.1. The standard access obligations

Under s. 152BV(2)(b), the ACCC must not accept undertakings unless it is satisfied that they are consistent with the SAOs that are applicable to Telstra. The SAOs are set out in s. 152AR of the Act. An access provider that supplies a declared service to itself or others must comply with any applicable specified obligations. These obligations were listed in section 4.2.2.

Most of the SAOs detailed in section 4.2.2 apply to Telstra in its supply of the LSS. The exceptions are the SAOs that would apply if a relevant standard was in force under s. 384 of the *Telecommunications Act* 1997 and the SAOs that relate to a declared service supplied by means of conditional-access customer equipment.

The ACCC's draft decision considered that the Telstra ULLS connection and LSS connection/disconnection charge undertakings were consistent with the SAOs. The ACCC did not receive any submissions in response to that draft view.

5.2. Approach to assessing consistency with the standard access obligations

The Act does not detail a specific approach for assessing whether the terms and conditions in an undertaking are consistent with the access provider's SAOs. The ACCC finds it useful to consider whether the terms and conditions in an undertaking raise any inconsistencies with the SAOs. If the terms and conditions are not inconsistent with the obligations, the ACCC is likely to regard them as consistent.

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

The purpose of this assessment is to ensure that an access provider would comply with the SAOs should the undertakings be accepted. The ACCC is not here concerned with the reasonableness of the terms and conditions of the Undertakings. Reasonableness is assessed separately in section 6.

In making this assessment, it has been necessary for the ACCC to interpret how the relevant terms and conditions of the undertaking would operate. Any alternative interpretation that might be given to the undertaking at a later time cannot be said to have been considered or accepted by the ACCC as consistent with the SAOs. Accordingly, an undertaking can only be considered as accepted to the extent that it is given effect consistent with the ACCC's understanding of the undertaking at the time of conducting its assessment.

The ACCC has especially considered whether any of the non-price terms and conditions specified in the undertaking (including the attachments) are inconsistent with each of the applicable SAOs. The price terms and conditions are more relevant to the assessment of reasonableness.

5.3. Assessment

Clause 3.1 of the undertaking provides that Telstra will comply with the terms and conditions specified in the various attachments to the undertaking to satisfy the relevant SAOs.

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

The undertaking specifies an LSS service of particular technical attributes (the Telstra service) and then sets out the terms and conditions upon which the Telstra service will be supplied. The terms and conditions do not specify all the matters which an access provider and access seeker would need to agree on in the supply of the LSS.

5.3.1. Non-exhaustive scope of the undertaking

While the price and non-price terms and conditions in the undertaking do not cover all of the matters relating to the supply of the LSS, it is the ACCC's view that it is not necessary for an undertaking to exhaustively address all matters that could relate to the applicable SAOs.

Any relevant matters that are not addressed in the undertaking could be settled by commercial negotiation. If the parties are unable to agree, the matters could be determined by the ACCC if an access dispute was notified.

Accordingly, the ACCC considers that the absence of terms and conditions about certain matters does not, of itself, make an undertaking inconsistent with the SAOs. However, it is open to the ACCC to form a view that the absence of certain terms and conditions could make the undertaking unreasonable in the terms of section 152BV. This issue is discussed further in Chapter 6 where the ACCC considers whether the undertaking should better clarify its application to certain connection scenarios.

In the present case, the LSS connection/disconnection undertaking only proposes a price for connection and disconnection. At the time of submitting the LSS connection/disconnection undertaking, Telstra did provide an LSS monthly charge undertaking, although both LSS undertakings combined did not contain the full terms and conditions of access to the service. Following the rejection of the LSS monthly charge undertaking, the ACCC considers that, were the LSS connection/disconnection charge undertaking accepted, it would be possible for parties to negotiate the other terms of access, such as monthly charges, that not covered by the LSS connection/disconnection charge undertaking.

5.3.2. Whether the undertaking specifies terms and conditions for services other than the Telstra services

The ACCC notes that there could be uncertainty about the scope of the undertaking as it specifies terms and conditions for a service which is not defined in the precise form used to define the declared LSS. In certain respects, the Telstra service would appear more limited than the declared service.

The ACCC's interpretation is that the price and non-price terms specified in the undertaking apply *only* to the LSS actually supplied by Telstra (the Telstra service) and not to the relevant declared service if there are differences in definition or specification. In other words, Telstra would not be required to supply, on the terms in the undertaking, a form of the LSS that was different to or beyond the scope of the Telstra service. The ACCC may be required to arbitrate a dispute in the event there

was disagreement about the terms and conditions of access to a form of the declared LSS that was outside the scope of the Telstra Service.

Furthermore, if the undertaking was asserted as specifying terms and conditions for *all* possible forms of the declared LSS, then Telstra could conceivably refuse to supply any form of the declared service other than the Telstra Service. Clearly if such an interpretation was given to the undertakings the ACCC could not be satisfied that the undertaking was consistent with Telstra's SAOs.

Accordingly, the views expressed below assume that the undertaking specifies terms and conditions only for the supply of the Telstra Service and not for every possible form of the declared LSS.

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

The ACCC notes the following about the LSS connection/disconnection undertaking:

- the Telstra service specifies that the access seeker gets access to the non-voice ADSL frequency spectrum while the declared service only specifies non-voiceband frequency spectrum
- the Telstra service involves the use of a continuous metallic twisted pair, whereas the declared service involves the use of an unconditioned copper based wire
- the Telstra service excludes certain provisions of the LSS where the Telstra customer access module is not located in a Telstra exchange, whereas the declared service does not draw this distinction.

The ACCC's consultation with access seekers has not revealed any significant current or prospective use of the LSS that would not fall within the scope of the services definitions or specifications in the undertaking. The ACCC has not been presented with evidence that such a use will emerge before the expiry of the undertaking.

However, if an access seeker was to seek access to a form of the LSS other than as specified in the undertaking, then the ACCC believes that it would be open to the access seeker to negotiate access to the different form of the LSS from Telstra. If Telstra and the access seeker could not agree on terms and conditions of access to such a form of the LSS, the access seeker could ask for the ACCC to arbitrate.

5.3.3. Supply, quality and fault handling for the LSS

The attachments to the undertaking specify certain technical requirements and applicable codes or industry standards relating to supply of the Telstra service. The ACCC has not received submissions contending that these requirements would be inconsistent with the obligation to provide services of an equivalent technical and operational quality.[23] On their face, the provisions of the undertaking do not appear to be inconsistent with this obligation insofar as they relate to the Telstra services.

The undertaking does not contain provisions specifying how Telstra will satisfy its obligations regarding the quality and timing of fault detection, handling and

[23] The ACCC has previously sought industry comment on the appropriateness of these or quite similar technical attributes.

rectification for the Telstra service. Nor does it contain provisions on the commencement, refusal, suspension or termination of supply.

The ACCC does not consider that this necessarily makes the undertaking inconsistent with the SAOs in section 152AR(3) of the Act. Rather, Telstra has chosen not to specify in the undertaking all aspects concerning how these obligations will be satisfied in respect of the Telstra services[24]. The ACCC considers that, should agreement not be reached on these matters, any such disagreement could be resolved by the ACCC in arbitration.[25]

The ACCC is accordingly of the view at this time that the undertaking is not inconsistent with the standard access obligations in relation to the supply and quality of the Telstra service version of the LSS and related fault handling obligations.

5.3.4. Interconnection of facilities

The attachments to the Undertakings specify how the location of points of interconnection (POI) between Telstra's network and the service provider's network are to be determined. The undertaking for the LSS states that the POI:

> "means, in relation to a line, a point that is an agreed point of interconnection located at or with a TCAM and located on the SSS End Customer side of the TCAM"

In particular, the undertaking specifies that the POI will be at a point agreed by Telstra and the service provider.

In the ACCC's draft decision, it stated that it was unclear to it why the POI would be defined by relation to a TCAM, when the use of a ULLS should mean that there is no Telstra equipment involved in the provision of services to the end-user. In the absence of any submissions from interested parties, the ACCC at this time does not consider this issue to be a concern.

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

The ACCC considers that the terms and conditions set out in the undertaking relating to interconnection of facilities would not make the undertaking inconsistent with the SAO to permit interconnection of facilities (s. 152AR(5)). While Telstra has chosen not to specify in the undertaking all the terms concerning interconnection of facilities, the ACCC does not consider that this makes the undertaking inconsistent with the SAO to permit interconnection of facilities. Should the negotiations contemplated by the terms and conditions, or negotiations concerning other aspects of facilities interconnection, not result in agreement, the ACCC considers that those matters could fall for determination by the ACCC in arbitration.

At this time, the ACCC considers that the LSS connection/disconnection undertaking is not inconsistent with the SAOs relating to interconnection of facilities.

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[24] It is understood such aspects are addressed by Telstra in its individual access agreements.

[25] The ACCC has also published its views on the model (non-price) terms and conditions for the ULLS. Aspects of that decision might inform any dispute on such matters for the LSS.

5.3.5. Provision, timing and content of billing information

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

The undertaking does not contain terms and conditions on the provision, timing and content of billing information. The ACCC therefore considers that billing matters would be resolved by commercial negotiation or arbitration, and considers at this time that the undertaking is not inconsistent with the billing information SAOs.

5.3.6. Conclusion

The ACCC's final view is that the undertaking is not inconsistent with Telstra's SAOs.

However, the ACCC reiterates that it considers the undertakings cover only a particular form of the LSS – the Telstra service – and that it would be open to access seekers to seek other forms of the LSS, including by recourse to arbitration by the ACCC if agreement cannot be reached between Telstra and the access seeker. However, the ACCC acknowledges that it is unlikely that access seekers would seek to access the LSS in different forms from that specified by Telstra during the period of operation of the undertaking.

The ACCC also emphasises that the undertaking does not contain a complete set of terms and conditions or deal with all aspects of acquiring the version of the LSS covered in the undertaking. However the undertaking is not required to be exhaustive, and other terms and conditions of supply could be determined by commercial negotiation, or failing agreement, through arbitration by the ACCC.

6. Reasonableness of the proposed LSS connection and disconnection charges

6.1. Approach to consideration of reasonableness

The ACCC cannot accept an undertaking unless it is satisfied that the terms and conditions of the undertaking are reasonable. In forming a view about whether particular terms and conditions are reasonable, the ACCC must have regard to the range of matters set out in s. 152AH(1) of the Act. These were summarised in section 4.2.4. The ACCC is not limited to consideration of the matters set out in s. 152AH(1) of the Act.[26] It may have regard to any other matters it believes are relevant to its consideration of whether the terms and conditions are reasonable.

In considering the reasonableness criteria, the ACCC considers that, where appropriate, the 'future with and without' test from the Sydney Airports case can be a useful analytical aid to assist the ACCC.[27] The ACCC uses the test, in considering particular terms and conditions under the section 152AH criteria, to contrast the outcome if the undertaking was accepted against the outcome if the undertaking was rejected. The ACCC does not consider that the 'future with or without' test will assist the ACCC in assessing all of the reasonableness criteria, and will only employ the test as an aid in assessing those criteria where the test facilitates the ACCC's analysis. In doing so, the ACCC has considered whether either acceptance or rejection of the undertaking would achieve better outcomes with respect to the appropriate criteria in section 152AH.

It is uncertain exactly what pricing outcomes might arise if the undertaking was rejected. Part XIC would continue to apply to access seekers wishing to acquire the LSS. Access seekers would be able to continue to seek to determine terms and conditions of access via commercial negotiation or, if unable to agree terms, seek ACCC arbitration of the dispute.[28]

Ultimately, the ACCC forms a view whether it considers the terms and conditions of the undertaking are reasonable by balancing the various criteria in section 152AH.

The ACCC notes that its views on the terms and conditions proposed by Telstra are likely to influence industry in achieving commercial or regulatory outcomes.

6.2. ACCC's draft decision

In its draft decision on the LSS undertaking, the ACCC concluded that the undertaking's terms and conditions were not reasonable because, inter alia, they:

- were unlikely to promote the LTIE, as they would not promote competition nor encourage the economically efficient use of infrastructure
- would result in Telstra recovering more than was necessary to protect Telstra's legitimate business interests

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26 *Trade Practices Act 1974* (Cth) s. 152AH(2).

27 *Sydney Airports Corporation Ltd* (2000) 156 FLR 10.

28 The ACCC is currently arbitrating access disputes relating to the LSS, including consideration of connection charges.

- would harm the interest of access seekers (the persons who have rights to use the LSS), who would be required to pay excessive charges for LSS connections and disconnections, limiting their ability to compete
- exceeded the direct costs of making LSS connections and disconnections
- would encourage the retention of less than efficient connection and disconnection processes currently employed by Telstra.

The key findings that informed the ACCC's views on the criteria were that:

- the $90 connection charge in the undertaking was excessive and did not reflect the efficient direct costs of making most connections
- an efficient operator would not separate the disconnection of an LSS from a re-connection when an end-user churned between providers but would co-ordinate the disconnection and reconnection activities. The disconnection charge in the undertaking was therefore considered inappropriate
- even in the limited situations where a separate disconnection was warranted, the $90 disconnection charge in the undertaking was excessive and did not reflect the efficient direct costs of making such disconnections
- the excessive connection price and unnecessary disconnection price would inhibit the ability of access seekers using the LSS to compete with Telstra for end-users
- notwithstanding submissions from Telstra suggesting that the undertaking terms would not apply to MNMs, the undertaking was not clear on whether the undertaking connection charge would or would not apply to managed network migrations (MNMs) nor on how MNMs would be defined, and this uncertainty would disadvantage access seekers.

6.3. Consideration of legislative criteria

The following parts of this chapter set out the ACCC's consideration of the access undertaking against the relevant legislative criteria in s. 152AH(1) of the Act. The criteria were outlined in section 4.2.4.

6.4. Direct costs of providing access to the declared service

The ACCC's consideration of direct costs also informs the ACCC's consideration of the other statutory criteria. Under this section the ACCC will set out its consideration of the direct costs of providing access to the LSS.

6.4.1. Telstra's cost model

Telstra contends that it has modelled the efficient and forward looking costs of making LSS connections and disconnections. In Telstra's view, the modelling abstracts from the actual costs incurred by Telstra and attempts to model the costs an efficient operator would incur in effecting connections and disconnections of the LSS for access seekers.[29]

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[29] Telstra, *Telstra's submission in support of the ULLS connection and disconnection charges undertaking dated 13 December 2004*, February 2005, p.3.

As an LSS connection or disconnection is an event which incurs costs once, rather than in an ongoing manner, Telstra contends that there should be 'once-off' charges for these events. The ACCC considers that this charging approach would be appropriate, although it notes its discussion in section 6.4.5 that Telstra may currently recover certain back-of-house costs in ongoing charges.

As previously noted in section 3, Telstra proposes to charge geographically averaged prices for LSS connections and disconnections.

The key cost elements included in Telstra's cost model for LSS connections and disconnections are:

- labour costs of travelling to an exchange to perform jumpering work (discussed in section 6.4.4);
- labour costs incurred within exchanges to perform jumpering work (discussed in section 6.4.2 and 6.4.3);
- 'back of house' costs incurred in supporting the deployment work of field technicians performing jumpering (discussed in section 6.4.5)
- costs of a vehicle and equipment used by field technicians to make connections and disconnections.

The ACCC considers that it appears that the cost model proposed by Telstra to cost LSS connections and disconnections have a generally appropriate structure and approach to modelling relevant cost factors. The ACCC notes that parties commenting on Telstra's proposals have not taken issue with the cost model per se but rather have disputed the inputs used in the model.

The remainder of this section contains the ACCC's assessment of the key cost inputs.

6.4.2. Hourly labour cost

Telstra's cost model

Telstra's cost model for LSS connections and disconnections has, as a key input, the hourly labour cost for the technicians that perform LSS jumpering.[30] The hourly labour cost is used in conjunction with Telstra's claimed times for travel to the exchange and jumpering to contribute to Telstra's claimed costs for LSS connections and disconnections.

Telstra's hourly labour rate is calculated in Annexure B to its supporting submission[31] and consists of direct wage costs, direct loadings and cost mark-ups for overheads. The statement of **[c-i-c]** provides detail on Telstra's calculations.[32]

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30 While Telstra's initial supporting submission and cost model contained estimates of the hourly labour cost for back-of-house staff, Telstra subsequently revised its basis for claiming back-of-house costs. This is discussed further in section 6.4.5.

31 Telstra, *Telstra's submission in support of the SSS connection and disconnection charges undertaking dated 13 December 2004*, Feb 05.

32 **[c-i-c]**, *Statement of* **[c-i-c]**, 26 May 2005.

Appendix A to the ACCC's draft decision[33] contained the ACCC's assessment of Telstra's hourly labour cost for LSS connections and disconnections of **[c-i-c]**. With respect to the relevant matters under section 152AH(1) the ACCC's assessment was that there would appear to be two appropriate minor adjustments to Telstra's calculations with regard to payroll tax and long service leave. However the ACCC considered that an assessment of Telstra's indirect cost overheads and the percentage of the year spent actually making connections was less easily done.

ACCC's view

The ACCC considers that its assessment in Appendix A of the draft decision still stands. It also continues to believe that it is more reliable to assess the efficient cost for connection and disconnection work by reference to quotes from third party contractors for connection and disconnection work.

Use of third party contractor information

The ACCC's draft decision concluded that it would be appropriate to deduce the efficient cost for jumpering activities from third party contractor quotes for ULLS and LSS jumpering work provided by Telstra in September 2005.[34] The ACCC considered that it would be appropriate to base the jumpering cost on quotes for **[c-i-c]** work where **[c-i-c]**, as this was most comparable to Telstra's own employee's jumpering work.

The quotes for LSS connection work were for work equivalent to the steps in paragraphs 11(c)(v) to 11(c)(xxiv) of the **[c-i-c]** statement.[35] The ACCC noted the advice of Consultel that earlier steps in that statement would have a negligible impact on costs and/or be unlikely to be followed.[36] The ACCC accordingly accepted the recommendation of Consultel that an appropriate estimate for LSS connection work would be **[c-i-c]** which included a 10% markup for contract management overheads. This compared to Telstra's cost estimate for LSS connection work of **[c-i-c]**. The ACCC agreed with the view put by Consultel that the quoted prices for connection were likely to more closely represent 'efficient' rates, as they were derived from a competitive tendering process that would allow cost recovery and a commercial return.[37]

Telstra's response to the ACCC's draft decision argued that the ACCC should not use these rates for two reasons. Firstly, it submitted that the quotes it provided to the ACCC were for 'multiple' jumpering at exchanges close to each other, and that the ACCC should instead use alternative 'singular' jumpering contractual information. Telstra argued that the singular jumpering information was preferable because:

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33 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 75.

34 Ibid, p. 30

35 **[c-i-c]**, *Statement of **[c-i-c]***, 25 May 2005, pp. 8-10, 13-14.

36 Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—interim report*, November 2005, p. 25. Also, Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—final report*, November 2005, p. 24.

37 Consultel, interim report p. 12, final report p.13

- the singular jumpering quotations reflect arrangements actually agreed to with contractors whereas the **[c-i-c]** quotes previously relied upon by the ACCC were not ultimately adopted by Telstra,
- the multiple jumpering quotations reflected the performance of multiple tickets of work at one exchange or exchanges in close proximity to each other.[38] [39] Comparatively, the singular jumpering quotes were for jumpering tasks that 'were not necessarily at the one exchange or at exchanges within a close proximity of each other', which Telstra submitted was more relevant for the purposes of the undertaking assessment.

Telstra also clarified that the quotes it provided were not for LSS connections specifically, but rather for 'similar types of jumpering activity'.[40]

Secondly, Telstra submitted that the 10 percent allowance for contract management overheads was inadequate, and did not account for additional costs associated with connections. Telstra submitted that an uplift of **[c-i-c]** should be used.

The revised quotes provided by Telstra for LSS-type jumpering tasks are:[41]

Table 6.4.1 [c-i-c LSS connection prices quoted to Telstra per connection

Contractor	**Location**	**Price quoted**
C1	Metro	[c-i-c]
C1	Metro	[c-i-c]
C2	Metro	[c-i-c]
C2	Metro	[c-i-c]
C3	Metro	[c-i-c]
C2	Metro	[c-i-c]
C4	Regional	[c-i-c]
C5	Regional	[c-i-c]
C6	Regional	[c-i-c]
C6	Regional	[c-i-c]

An average of these quotes implies that LSS connection work costs an average of **[c-i-c]** in metropolitan areas and **[c-i-c]** in regional areas.

This is a higher amount than the quotes provided by Telstra in September 2005. However the ACCC notes that Telstra's submission states that the quotes are different

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38 Therefore, a travel cost, albeit of a minimal nature, would have been included in the quotations.

39 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commissions's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006, p. 5.

40 Ibid

41 Ibid, p. 20.

to the September 2005 quotes because the February 2006 quotes were for "jumpering tasks which were not necessarily at the one exchange or at exchanges within a close proximity of each other" whereas the previous quotes were "limited to situations where the work orders involved multiple tickets of work at the one exchange or at exchanges within a close proximity"[42]. As such, the higher amounts provided by Telstra in February 2006 would appear to represent both jumpering and travel costs, rather than just jumpering costs. The ACCC also notes the comment by Consultel that the inclusion of travel costs explains the difference in the quotes for metropolitan and regional areas.[43]

Accordingly the ACCC considers that the February 2006 quotes provided by Telstra are a better basis on which to assess efficient costs for jumpering and travel. As stated in the ACCC's draft decision, it could also be assumed that the quotes would include an allowance for the **[c-i-c]** tool cost claimed by Telstra.[44] Further, as these quotes include travel, the ACCC considers it reasonable that the quoted amounts would cover the **[c-i-c]** and **[c-i-c]** vehicle costs sought by Telstra for metropolitan and regional areas respectively.

Telstra's second concern with the ACCC's draft decision relates to the use of a 10% uplift to account for contract management overheads. Telstra proposes instead that the **[c-i-c]** indirect cost overhead used in its labour cost calculation is employed instead.[45] Telstra argues that "the overhead costs associated with contractor staff are largely equivalent to (if not more than) the overheads attributable to Telstra staff".[46] It argues that this is true of all of the five uplifts—human resources, information technology, accounting and finance, business administration and property management—that Telstra has included in its cost model. It also argues that it will have to incur "costs associated with the tendering process and the costs of managing the contracts and labour".

The ACCC considers that it would be true that there would be indirect costs associated with the contractor workers, and that these may be at a similar level to that of Telstra staff, given that both the contractors and Telstra staff would be engaged in the same work. However, where Telstra is using contractor staff, these costs would be faced by the contractor and not Telstra. Costs such as the computer equipment used by the contractor staff, human resource costs, accounting costs, offices used by contractor staff, etc would all be costs incurred by the contractor who would need to manage payrolls for, provide accommodation for, provide equipment to, etc, its staff.

The ACCC considers that contractors would clearly recover these indirect costs in quotes for work to Telstra and that the quotes accordingly represent the full direct wage, direct oncosts and indirect costs faced by the contractor. To not recover those

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42 Ibid pp. 4, 5.

43 Consultel *Comments on Telstra response regarding LSS undertakings interim report*, 24 February 2006, p.3.

44 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 31.

45 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commissions's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, Febraury 2006, p. 5.

46 Ibid.

costs within the quotes would omit (using Telstra's uplifts) around **[c-i-c]** of the costs faced by the contractor, which the ACCC considers would clearly be untenable for that business.

The ACCC considers that Telstra has not shown why or how these costs would be incurred again by Telstra if it was using contractor staff. As such, the ACCC considers that it would be inappropriate to allow an additional uplift on top of the third party contractor rates. It agrees that Telstra would face indirect costs if its own staff performed this work. The ACCC also agrees that it would be necessary for Telstra to recover these costs in connection prices. However these costs are already recovered in the third party contractor prices.

To the extent that Telstra employs contractor labour instead of its own staff to perform connection work, the ACCC considers that there would presumably be some additional layer of costs to Telstra, associated with managing the tendering process, contracts and labour. Telstra's own modelling suggests that one team leader is required for every 17 staff members performing exchange work. This management mark-up is estimated by Telstra to be around **[c-i-c]**. The ACCC considers that, in the absence of further information, it would be reasonable to expect that a similar overhead would be required for supervision and management of contractor labour. The ACCC notes Consultel's view that this would be an appropriate allocation.[47]

Accordingly, the ACCC considers that it is appropriate to use the quotes provided by Telstra in February 2006 as a reliable proxy to calculate the appropriate jumpering and travel costs incurred in LSS connection work, uplifted by 10% to allow for contract management overheads. Accordingly, the ACCC considers that appropriate and efficient costs for jumpering, travel, vehicle and tool costs would be **[c-i-c]** in metropolitan areas and **[c-i-c]** in regional areas.

The ACCC notes that the third party rates from September 2005 may still contain relevant information on jumpering costs where the tickets of work are close to each other. However it considers that the February 2006 quotes provide better information about total efficient costs for travel and jumpering and that it is more appropriate to use these figures in assessing the undertaking against the direct cost criteria.

Application of third party contractor information to calculate hourly labour rates

In its draft decision, the ACCC noted that using third party contractor information to estimate jumpering costs did not allow the ACCC to derive an exact hourly wage rate or time required to perform jumpering.[48] This was because the difference between the rates in the quotes and the cost claim by Telstra could be attributed to either shorter jumpering time, lower labour cost or both.

The ACCC considers that this is even more true when the quotes provided by the contractors also cover travel costs, as the time spent travelling between exchanges is a third unknown variable.

The ACCC notes that Consultel's final report recommends that it might be appropriate to discount Telstra's wage rate by **[c-i-c]** to reflect the difference between

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47 Consultel final report p. 12

48 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 32.

the September 2005 third party contractor jumpering costs and Telstra's jumpering costs – effectively assigning the third party contractor efficiencies to the labour cost.[49] The ACCC continues to believe that it has insufficient information to accept this finding.

Overall conclusion on hourly labour rate

Overall the ACCC considers that based on the information provided it cannot be satisfied that Telstra's claimed hourly labour rate is appropriate or efficient. In its draft decision, the ACCC suggested two adjustments to Telstra's calculation of hourly labour rate.[50] However it considers that more information would be required before it could come to a conclusion on the other elements of the claimed rate.

However, the ACCC considers that it is unnecessary to draw a final conclusion on the appropriate hourly labour rate for the purposes of assessing the appropriateness of the claimed costs in the LSS undertaking. This is because it can use the third party contractor quotes to determine appropriate and efficient costs for travel and jumpering and the hourly labour rate is not required to calculate costs for other than these two activities.

6.4.3. 'In-exchange' work

Telstra's view

The processes and tasks undertaken in Telstra's exchanges to effect ULLS and LSS connections are described in detail in the statement of **[c-i-c]**.[51]

The ACCC understands that the parties making submission on the Undertaking do not take particular issue with the need for the processes described in the **[c-i-c]** statement. However, the efficiency with which these tasks are performed, and average times estimated by Telstra to perform the tasks, are disputed.

The average times for jumpering work for LSS connections and disconnections as claimed by Telstra are set out in Table 6.4.2.

Table 6.4.2 [c-i-c Average times taken to perform ULLS and LSS connections and disconnections, Telstra

Service	Connection	Disconnection
LSS	[c-i-c]	[c-i-c]

As part of its First s. 152BT request to Telstra, the ACCC noted that:[52]

> ...Telstra has relied on what could be characterised as anecdotal evidence of estimates of times taken to perform jumpering work. In giving weight to any such views the ACCC would prefer that Telstra should support its estimates of in-exchange work time by other than opinions, albeit informed opinions, of its staff. The ACCC notes that an interrogation of the Telstra

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49 Consultel final report p. 13

50 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 75

51 **[c-i-c]**, *Statement of **[c-i-c]***, 25 May 2005, pp. 8-10, 13-14.

52 ACCC, *Telstra's 13 December 2004 access undertakings relating to ULLS and LSS connection and disconnection charges – Request for further information under section 152BT of the Trade Practices Act 1974*, 12 August 2005, p.2.

> 'Connect' system was able to ascertain average travelling times to effect ULLS and LSS connections.

The ACCC therefore requests that Telstra provide further information based on actual records and/or an interrogation of its 'Connect' system that demonstrates, in as verifiable and robust a way as possible, estimates of the time it takes to perform jumpering work in exchanges.

In response to this request, Telstra advised that its systems could not capture records of actual times taken by technicians to perform jumpering work. However, in addition to the estimates made by ***[c-i-c]***, Telstra stated that it also relied on the findings of its own expert engaged for the Primus-Telstra LSS arbitration, Mr Dick Prince, who considered that the claimed time estimated for LSS connections was reflective of necessary and efficient work practices.[53]

Views of interested parties

The CCC disputed the times claimed by Telstra for in-exchange jumpering work and argued for a set of times shown in Table 6.4.3.

Table 6.4.3 *[c-i-c* Average times taken to perform LSS connections and disconnections, CCC

Service	Connection	Disconnection
LSS	[c-i-c]	[c-i-c]

ACCC's view

In its draft decision, the ACCC had formed draft views as to appropriate costs of jumpering, largely based on information Telstra had provided on third party contractor rates in its s152BT response dated 29 September 2006.

While Telstra's exchange jumpering costs were modelled by it to be ***[c-i-c]*** for a LSS connection (based on a time of ***[c-i-c]*** minutes charged at ***[c-i-c]*** per hour), the ACCC accepted advice from Consultel that an average cost of ***[c-i-c]***, based on the rates charged by third party contractors, uplifted by 10 per cent, was more reasonable. On these rates, Consultel stated that it believed that

> the price quoted by third party contractors in a contestable and competitive tender process forms a reasonable and valid independent estimate of the efficient cost to perform this function, and when uplifted by a factor to account for contract management and supervision overhead a cost of ***[c-i-c]*** for the exchange jumpering labour component of a ULLS, and ***[c-i-c]*** for LSS jumpers is a reasonable cost.[54]

As stated in section 6.4.2, Telstra has submitted new third party contractor cost information which it claims should be used to form benchmark costs.[55] The ACCC

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53 Telstra, *Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 29 September 2005, p. 3.

54 Consultel interim report, p. 27, final report p. 26.

55 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commissions's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006, p. 5.

agrees that it would be more appropriate to utilise Telstra's new contractual data as a benchmark rather than the previously used quotes for multiple jumpering.

Consultel has noted that the new data gives rates of **[c-i-c]** for metropolitan connections and **[c-i-c]** for regional connections.[56] Consultel's comparison of these benchmark rates with Telstra's own modelling of the same components shows that Telstra's modelled costs are significantly higher than the 3P benchmarks, as shown in Table 6.4.4 below.

Table 6.4.4 *[c-i-c* Costs of LSS connections, Telstra cost model and third party contractual arrangements, Consultel comparison[57]

Cost element	Metro		Regional	
	Telstra ($)	Contractor ($)	Telstra ($)	Contractor ($)
Labour cost – travel and jumpering	[c-i-c]	n.a	[c-i-c]	n.a
Vehicle	[c-i-c]	n.a	[c-i-c]	n.a
Tools	[c-i-c]	n.a	[c-i-c]	n.a
Total[1]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

1. the 'Contractor' costs exclude the 10 per cent uplift factor discussed in section 6.4.2.

Based on the new information provided by Telstra, the margins between the contractor rates and Telstra's modelled costs for both metropolitan and regional connections would appear to suggest that Telstra's claimed costs for jumpering, travel, vehicle and tool costs combined are excessive. As stated by Consultel,

> This comparison from Telstra's own figures indicates that Telstra's modelling of its own costs when using their own staff is significantly higher than the price charged to them by third-party contractors to perform the same tasks.[58]

6.4.4. Travel time and costs

Telstra's view

The average times used by Telstra for various regions are shown in Table 6.4.5:

Table 6.4.5 *[c-i-c* Travelling time to effect LSS connections and disconnections, Telstra

CBD	Regional	Regional	Metro
[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

56 Consultel contends that this figure may be higher than is reasonable because the (simple) average calculation would be skewed by the inclusion of more costly SA, NT and WA contracts.

57 Consultel *Comments on Telstra response regarding LSS undertakings interim report*, 24 February 2006, p. 4.

58 Ibid

Telstra contends that the travel time estimates that it uses as inputs in its single connection and disconnection cost model are *average* travel time measures, based on actual data stored in its 'Connect' system.[59]

Telstra's 'Connect' computer-based system assigns the work required of Telstra's field technicians to support the supply of Telstra's services, including the ULLS and LSS. Telstra submits that an important objective in performing this assignment of work is the minimisation of travel time between jobs, subject to the achievement of other priorities, such as meeting statutory customer service obligations and private contractual obligations. As stated by ***[c-i-c]***,

> Connect assigns tasks to field technicians according to certain parameters or business objectives and business value functions (by evaluation of the work schedule as a whole) that:
>
> (a) ensure that orders are completed within the timeframe required by Telstra's customer service and other contractual obligations;
>
> (b) give priority to the completion of tasks due today before tasks that are due tomorrow
>
> (c) apply Telstra's "on the day" business priorities tasks for the day – complete high priority tasks (such as "Life and Limb Emergencies" or damage to Telstra equipment that poses a risk to the public - rated a 99 or 98 out of 100) over lower priority tasks (such as exchange tasks for retail and wholesale customers - rated an 85 - or payphone install work - rated a 55);
>
> (d) maximise the number of jobs per day that can be completed by Telstra technicians by:
>
> (i) allocating work to technicians based at "manned" exchanges where possible;
>
> (ii) ensuring the technicians allocated the work have the sufficient skills to complete the work expediently; and
>
> (iii) minimising the travel time required by Telstra technicians to complete the daily tasks allocated to them; and
>
> (iv) allocating tasks in the most cost effective manner - for example, a schedule filled with the minimum amount of travel is more cost-effective than a schedule filled with long travel times.[60]

The ACCC sought further information from Telstra about the nature and bases of these average travel times in its First BT request.

The ACCC understands that the times shown in Table 6.4.5 reflect the *average* time taken for technicians to travel to exchanges to perform work there for *all* assignments performed in such locations, not just for ULLS and SSS connections and disconnections[61].

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59 **[c-i-c]** *Statement of **[c-i-c]***, 7 July 2005 pp. 5-6.

60 Extract from **[c-i-c]** *Statement of **[c-i-c]***, 22 June 2005 p.3. The ACCC has used this extract from a submission by Telstra to a separate ACCC process.

61 Telstra, *Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 29 September 2005, p. 2.

The trips or assignments included in the calculations exclude trips to perform mass network migrations.[62] The average times calculated are based on the activity undertaken over the 12 month period 1 June 2004 to 31 May 2005 when ***[c-i-c]*** ULLS and ***[c-i-c]*** LSS connections were made.[63] Also, ***[c-i-c]*** LSS disconnections were made for the 12 month period ending 30 June 2005.[64]

Telstra has confirmed that zero travel times were recorded for some of the individual exchange work assignments which the ACCC understands reflects multiple assignments being performed by a technician as a result of a single trip to an exchange. As stated by ***[c-i-c]***,

> The data in Connect takes into account tickets of work that are grouped together at exchanges and do not require travel. For example, if two tickets of work (TOWs) are carried out at an exchange, only one period of time is recorded and allocated to the two tickets performed.[65]

However, while there is a degree of aggregation with respect to the assignment of LSS connection jobs, with consequent reductions in travel times allocated per connection, the ACCC notes that Telstra has stated that

> Telstra does not presently have a process in place to facilitate batching of connection requests because to date the demand for ULLS and SSS has been insufficient to justify the incurring of costs to introduce such a process.[66]

The ACCC understands that the statement of ***[c-i-c]*** refers to the lack of an explicit batching process where ULLS and/or LSS connections for a particular access seeker are hoarded until a specified volume is reached and then technicians are despatched to an exchange to make a number of ULLS and/or LSS connections at a time. While there is no explicit process whereby ULLS and/or LSS connections are deliberately hoarded and then technicians are despatched to an exchange to make a number of ULLS and/or LSS connections at a time, a less explicit and more incidental batching process occurs whereby it can be the case, on any one day, that ULLS and LSS connection jobs are combined together, or combined with other exchange work, by the Connect system.

Thus, batching of TOWs relating to LSS connections or disconnections occurs as a product of the operation of the Connect system allocating TOWs across the full range of field work rather than LSS TOWs being aggregated as a result of a separate process dedicated to the ULLS and/or LSS.

As stated by Telstra,

> …when individual tickets of work are allocated, it may happen that more than one ticket relates to the same exchange. …Telstra's algorithms ensure where possible that travel time is reduced. Hence where there is a capability to aggregate orders to a particular technician at a

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62 Ibid p. 2.

63 Ibid p. 2.

64 Ibid, p. 2.

65 **[c-i-c]** *Statement of **[c-i-c]***, 7 July 2005, p 5.

66 **[c-i-c]**, *Statement of **[c-i-c]***, 26 May 2005. p. 2.

particular site, Telstra will do so. This approach extends across not only the individual ULLS and LSS connections, but all TOW in a way that maximises overall efficiencies.[67]

While a particular LSS connection may also be scheduled by the Connect system to be performed along with a number of other exchange activities needed for other services (such as the ULLS, Telstra's ADSL, PSTN and other services), the Connect system appears also to have the potential to deploy a technician to perform multiple LSS connections from one single trip to a particular exchange. These connections may described as multiple or bulk connections of the LSS but they require no additional management (as is required for managed network migrations (MNMs) discussed in section 6.5.1) beyond that performed automatically by Connect system.

Hence, in addition to the simple 'single' LSS connection, there are LSS connections which occur back to back on a single trip to the exchange but do not involve a managed element as is apparently required for MNMs. They could be thought of as 'unmanaged' bulk connections. The undertaking applies the $90 connection charge to these connections as well as the simple single connection.

Views of other interested parties

The CCC submitted that there should be zero travel time for ULLS and LSS connections at CBD and 'manned' metropolitan and regional exchange locations.[68] Where a travel cost estimate is required, because connections are made at 'unmanned' exchanges, the CCC contends that Telstra's travel time should reflect a per unit estimate derived from at least 20 connections per exchange visit for most unmanned connections[69]. Thus, where Telstra claims ***[c-i-c]*** minutes, the CCC argues that the travel time per connection should be one-twentieth of this.

Table 6.4.6 [c-i-c Proposed travel times for single connections

	CBD	Metro manned (minutes)	Metro unmanned (minutes)	Regional manned (minutes)	Regional unmanned (minutes)	Rural unmanned (minutes)
Telstra	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
CCC	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c][1]

1. The CCC assumes 4 connections are made for each trip to a Rural exchange.

Optus took issue with the Telstra travel estimates from a number of points of view. In particular, it contended that the Telstra estimates reflect the current rate of ULLS take-up and, as this take-up increases, the per ULLS connection travel time will decrease[70]. It contends that this will occur over the undertakings period until 30 June 2006. One source of travel cost economy, according to Optus, will be that

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67 Telstra, *Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 29 September 2005, p. 5.

68 GQAAS, *Competitive Carriers Coalition response to the ACCC Discussion Papers on ULLS and LSS Undertakings*, May 2005, p.24.

69 Ibid.

70 Optus *Optus submission toAustralian Competition and Consumer Commission on Telstra's ULLS undertakings*, May 2005, p. 26.

technicians will not be required to travel as far to exchanges, as serviceable areas per technician will decrease as more technicians are employed.[71]

More precisely, Optus submits that Telstra's travel time estimates would likely reflect no more than 1 connection per day per exchange based on the number of ULLS connections made at the time of lodgement (13 December 2004)[72]. Optus contends that, based on its ULLS forecasts for June 2006, connections will rise to **[c-i-c]** services per exchange per day when **[c-i-c]**. In short, Optus argue that travel could be at least halved[73].

ACCC's view

The ACCC notes Consultel's advice that the average travel times for all ToW assignments overstates the average travel costs that would or should apply for assignments involving LSS connections at exchanges only. As these connections can be batched with other exchange-based work, notably, ADSL connections, then the travel times should reflect a discount from the average travel time cost. Consultel proposed a methodology for estimating this fraction at 36 per cent of the average travel cost.

In its February 2006 submission, Telstra states that

> Consultel has incorrectly assumed that each LSS connection will always be performed back to back with ADSL connections.[74]

Consultel has responded to this and states that this assumption has not been made but, rather, that it would be the case that 'more often than not' an LSS connection would be scheduled with an ADSL connection thus justifying the general proposition that an amount less than the average travel time per ToW activity should be used to estimate the travel cost incurred in making the average LSS connection.

The ACCC's final view is that a discount from the average travel cost is reasonable for LSS connections for the reasons outlined by Consultel. Similarly, its draft view was that the methodology suggested by Consultel for calculating this discount was broadly reasonable.

However, for its final decision, the ACCC considers it does not have to form a view as to the average time it should take Telstra to travel to perform an LSS connection as it seeks to rely on the 3P estimates for combined costs of travel, jumpering and other costs rather than estimates of these individual components.

In response to the concerns of the CCC, the ACCC considers that batching of ULLS connection work already occurs to a significant degree in the batching of ULLS and LSS connection work with other Telstra work performed at exchanges.

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71 Optus, p. 27.

72 Optus, p. 26.

73 Optus, p. 35.

74 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commissions's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006, p. 7.

6.4.5. 'Back of house' costs

Telstra's view

Telstra's initial submission in support of its undertakings provided estimates of back of house connection work carried out by the Data Activation Centre (DAC). The submissions stated that the DAC performed three broad tasks—service qualification testing, validation of the ULLS/LSS at the point of interconnect and manual assignment of cable pairs in systems where auto assignment cannot be performed. Further detail of DAC involvement was provided in the statement of **[c-i-c]** dated 27 May 2005 which provided a list of six tasks a DAC member might have to do during a ULLS connection, four tasks a DAC member might have to do during an LSS connection, and a list of tasks for a ULLS disconnection.[75]

Those submissions also provided estimates for the amount of time that various tasks would take on average—**[c-i-c]** minutes for ULLS connection, **[c-i-c]** minutes for LSS connection, **[c-i-c]** minutes for ULLS disconnections and **[c-i-c]** minutes for LSS disconnections—and multiplied these by a CFW5 labour rate to estimate back-of-house costs.

Telstra subsequently revised its claims for back-of-house costs. Telstra's revised claims for back-of-house activities attribute costs for ULLS and LSS connections to the DAC and the Integrated Deployment Solutions (IDS) group. Telstra's revised claims for back-of-house disconnection work attributes costs to the IDS and DAC groups for ULLS disconnection and to the IDS group and WCSG for LSS disconnections. The statement of **[c-i-c]** dated 7 July 2005 states that the IDS group is responsible for distributing tickets of work through the Connect system.[76] The statement of **[c-i-c]** dated 30 May 2005 contains a list of tasks that the Wholesale Customer Service Group (WCSG) performs when a LSS disconnection takes place.[77]

Telstra's revised claim also changed the way that costs were claimed by Telstra. This was explained in the supplementary statement of **[c-i-c]** dated 6 July 2005. The statement says that Telstra is unable to determine how frequently some DAC tasks are performed, and therefore is unable to determine how many minutes a back-of-house staff member would take on average per connection.[78]

Telstra instead calculates the total labour cost for each group and divides it by the number of tasks handled by each group to come up with an average cost per transaction:

Table 6.4.7 [c-i-c Back of house costs for LSS connections, Telstra

	IDS	**DAC**
Annual labour cost	[c-i-c]	[c-i-c]
# tickets of work or	[c-i-c]	[c-i-c]

[75] **[c-i-c]**, *Statement of **[c-i-c]***, 27 May 2005.

[76] **[c-i-c]**, *Statement of **[c-i-c]***, 7 July 2005.

[77] **[c-i-c]**, *Statement of **[c-i-c]***, 30 May 2005.

[78] **[c-i-c]**, *Supplementary statement of **[c-i-c]***, 6 July 2005.

transactions		
Cost per connection	[c-i-c]	[c-i-c]

Views of other interested parties

As the revised basis for claiming back-of-house costs was only presented by Telstra in July 2005, after the period for submission to the ACCC's discussion paper, other interested parties had not had an opportunity to comment on Telstra's revised cost claims at the time of the draft decision. However parties did provide comment on Telstra's initial method for claiming DAC costs on a per minute basis.

Macquarie Telecom considered that the **[c-i-c]** claimed by Telstra for the DAC was unreasonable, and particularly questioned whether 'validation of the ULLS at the point of interconnect' was required.[79]

Optus questioned the service qualification role of the DAC, noting that it already paid Telstra a separate ***[c-i-c]*** charge for service qualification testing and suggesting that Telstra might be recovering this charge twice. Optus also submitted that Telstra might be seeking to pass on the costs of inefficient IT systems given that there were costs associated with manual assigning of copper pairs where automatic systems did not work. Finally, Optus was dubious of the timings presented by Telstra.

The CCC submitted that ***[c-i-c]*** minutes and ***[c-i-c]*** minutes were excessive periods of time for ULLS and LSS connection, submitting that 2-4 minutes would be more appropriate.

As SETEL's submission to the draft decision did not comment on back-of-house costs, interested parties did not make any submissions on Telstra's revised cost claims.

ACCC view

DAC and WCSG groups

Although other interested parties did not comment on Telstra's revised claimed costs, Macquarie, Optus and the CCC all questioned the back-of-house costs attributed to the DAC alone in submissions to the ACCC's discussion paper.

Although Telstra has calculated its proposed DAC costs by distributing the total cost of the group over the number of connections and disconnections handled by the DAC, the ACCC's consultant Consultel has instead estimated the amount of time that would be spent by the DAC and WCSG in LSS connections and disconnections, which is more in line with Telstra's original cost claim methodology. However Consultel has estimated the probability of each task being required.

Consultel's final report assesses the appropriate time for each of the four activities identified by Telstra as being necessary for LSS connections. The conclusions by Consultel are that:

- validation of point of interconnect should not require manual activity

[79] Macquarie Telecom, *Macquarie Telecom's response to Telstra's undertakings on the unconditioned local loop service*, 1 June 2005, p. 13

- that manual activity of about 1.5 minutes on average would be needed for service qualifications for either both or the second of the following two reasons:
    - where there is incomplete cable records, the DAC member would have to retrieve information about the path of the cable, which Consultel considers should require 1 minute on average
    - where automatic service qualification fails, the DAC member would have to activate attenuation software to check the line, which would take half a minute on average
- connection assistance would require around 1 to 2 minutes on average.

Consultel considers that the DAC involvement in LSS connections should be around 2.5-3.5 minutes on average and that the additional cost above this claimed by Telstra is caused by a lack of automatic linkages within Telstra's IT systems.[80]

The ACCC also notes Consultel's view that the activities of the WCSG in LSS disconnections should not require manual work but rather be fully automated.[81] The ACCC considers that this seems appropriate given the description in the **[c-i-c]** statement of the tasks involved.

As noted above, Consultel and Telstra have taken different approaches to assessing DAC costs. The ACCC considers that, in general, it prefers an approach which better takes into account economically efficient costs. As Consultel has considered the benefits of automation and considered the appropriate amount of time for manual DAC involvement in LSS connections, whereas Telstra has simply used the historical costs of the DAC group, the ACCC considers that it is more likely that Consultel's estimates are a more reliable indicator of efficient costs. Based on the advice from Consultel and the ACCC's own understanding of Telstra's estimates, the ACCC is not satisfied that Telstra's estimates are reliable indicators of efficient costs. Accordingly the ACCC accepts Consultel's recommendation that Telstra's DAC cost claim for LSS connections and WCSG cost claim for LSS disconnections are likely to overstate efficient costs.

IDS group - are the costs of the IDS group already recovered by Telstra?

The larger portion of Telstra's claimed back-of-house costs are attributed to the IDS group, who distribute tickets of work to technicians using Telstra's Connect IT system. This function is not limited to the ULLS and LSS but rather covers wider work such as PSTN connections and general fault repair work.[82] Telstra's claimed costs include labour costs but also claims for overheads such as IT expense.

As the IDS group work covers a variety of connections, the ACCC has a concern that the IDS group costs may already be included in other cost categories relating to common network costs which are reflected in other charges for PSTN and other services, including network costs allocated to ULLS and recovered in monthly access charges. If so, it would be inefficient for Telstra to recover these costs twice over in both connections and recurring charges. The ACCC asked that Telstra provide further

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80 Consultel final report p 35

81 Consultel final report p. 58

82 **[c-i-c]** *Statement of **[c-i-c]***, 7 July 2005, p. 4

information in an information request before the draft decision was released[83] and also raised the issue in the draft decision.[84]

Telstra responded to the information request by stating that there was no double counting of costs because the mark-ups within the PIE II model had been determined when ULLS take-up was very small (around 1600 connections). As such, only the costs associated with connecting that small number of connections would have been accounted for, and any further connections would be incremental to costs already in the cost pool. Telstra states that this means that it is appropriate to recover IDS costs within connection costs.[85]

Telstra similarly stated in its response to the draft decision that there was no double counting of costs for the LSS because there had been no LSS connections at the time that the mark-ups within the PIE II model had been determined.[86] Telstra therefore submitted that the IDS costs would be incremental and that its approach to calculate those costs was appropriate. Telstra again submitted that it was appropriate to recover IDS costs in connection costs because it is consistent with the principle of recovering costs at the time and point at which they are occurred.[87]

The ACCC does not consider that Telstra's response has sufficiently addressed the two issues raised by the ACCC in its draft decision—firstly whether the claimed IDS costs are properly incremental and secondly, if the IDS costs are incremental, whether average IDS costs are likely to be the same as incremental costs. The ACCC's concern that IDS costs may be being recovered twice remains.

Telstra's responses indicate that IDS group costs are recovered within the network costs in PIE II. However it is arguing that all of the LSS (and much of the ULLS) take-up now is incremental to the take-up accounted for in the model and that it is therefore appropriate that these incremental costs are recovered in connection charges.

Firstly, the ACCC is not convinced that these costs are truly incremental. Telstra's calculation of costs by an average cost across tickets of work seems to conflict with its argument that the IDS costs associated with LSS work are incremental. If the costs associated with ULLS and LSS connection work are properly incremental, then the ACCC would expect that Telstra would be able to separately identify these costs. However Telstra has instead produced an average amount per connection from its common costs that it has then allocated to connections.

The ACCC considers that it could be expected that the overall costs of the IDS group may not have changed significantly since the time where the mark-ups were

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83 ACCC, *Telstra's 13 December 2004 access undertakings relating to ULLS and LSS connection and disconnection charges – Request for further information under section 152BT of the Trade Practices Act 1974*, 12 August 2005, p. 3

84 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 42.

85 Telstra, *Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 29 September 2005, p. 4

86 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's Draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006, p. 11.

87 Ibid.

determined. This is partly because the total number of fixed basic access lines has consistently dropped since 2000. The ACCC commented in its draft decision that it might be expected that as the number of ULLS connections has increased, the amount of other types of exchange work would have decreased as less lines of other types would be available. This is perhaps less true for LSS connections given that these do not replace a PSTN line (although it would still be true for ULLS) but does not alter the ACCC's comment about the total amount of connection work across the network.

If the costs associated with LSS connections are not incremental, it would be inappropriate for Telstra to recover a contribution to IDS costs within its LSS connection charges as they would already be fully recovered within the network costs in the PIE II model.

As stated in the draft decision, the ACCC's second concern with Telstra's charging approach is that, even if there are incremental IDS group costs associated with the LSS (and ULLS), Telstra is seeking to recover an *average* IDS group cost. However Telstra has claimed that the costs associated with the LSS are incremental. The ACCC considers that average costs and incremental costs are unlikely to be the same.

As stated in its draft decision,[88] the ACCC is particularly concerned about evidence provided by Telstra that various elements of IDS group work, such as the allocation and dispatch of tickets of work to field technicians, are handled automatically by the Connect system.[89] The ACCC notes that Telstra has submitted that **[c-i-c]** of tickets of work require manual variation by the Deployment Centre section of the IDS group.[90] The ACCC considers that as it might be expected that the costs associated with automated work would not be expected to vary with the number of tickets, the variable incremental costs per connection of the IDS group would accordingly be low and fixed costs would be high. These fixed costs would be already recovered within PIE II as they would have already been incurred at the time the O&M mark-ups were determined. As such, the ACCC considers that all of the costs claimed by Telstra in its LSS connection and disconnection charges are unlikely to be incremental and that Telstra should not recover the full average costs for each connection as it is likely to be recovering fixed costs more than once.

In its draft decision, the ACCC considered that in such a case where Telstra is recovering an average cost amount in its connection and disconnection charges, it might be appropriate that the O&M markups on network costs in PIE II are reduced for the ULLS and LSS or that the additional costs from those services be added into the O&M mark-ups in PIE II. The ACCC considered that the latter would be preferable in that it would make cost recovery consistent between access seekers and Telstra, as both would pay for IDS costs through ongoing charges. Telstra responded to this suggestion in its response to the draft decision by stating that it considered that it is more appropriate to recover costs when they are incurred. The ACCC considers

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88 ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, p. 44.

89 **[c-i-c]** *Statement of **[c-i-c]***, 7 July 2005, p. 3

90 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's Draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, p. 12.

that this does not address the issue identified by the ACCC about introducing inconsistency between the cost recovery for Telstra and access seekers.

The ACCC notes Telstra's comment in its response to the information request that the regulatory accounts used to derive O&M ratios will only include connection expenditure for a particular year. However the ACCC also notes that Telstra has said that there were ***[c-i-c]*** million tickets of work forecast for 2004/05 and that Telstra has elected to derive its costs based on all tickets of work. The ACCC has no reason to believe that the overall tickets of work would be any lower in 1999-00 than in any other year.[91] The ACCC therefore considers that Telstra's comment does not change the ACCC's analysis.

The ACCC remains concerned that Telstra may not be recovering these back-of-house costs in an appropriate manner, as it is not clear that costs have increased or that, if they have, Telstra is not recovering at least part of its costs twice. The ACCC does not consider that Telstra has adequately addressed the ACCC's concerns in its response to the draft decision, and so considers that it is likely that Telstra should not recover the full amount claimed by it on an average ticket of work basis.

The ACCC considers that the questions it raised in its draft decision about the incremental nature of IDS group costs might be considered less significant for LSS than for ULLS, where the costs associated with connection of a ULLS service might be expected to replace costs associated with PSTN connections. However it reiterates its concerns about the total number of connections where fixed line numbers are dropping, and about the automated nature of many IDS group tasks.

The ACCC is unable to quantify the amount that Telstra would be over-recovering in recovering its claimed costs within connection and disconnection charges. However it considers that its overall conclusion on the costs of LSS connections and disconnections for the purposes of this undertaking assessment does not depend on identifying the precise amount of likely over-recovery.

IDS group - costs incurred by Telstra per ULLS or LSS connection

If Telstra's claimed costs are genuinely incremental and its recovery approach is appropriate, it is necessary for the ACCC to estimate the appropriate level of costs incurred by the IDS group. If, as the ACCC considers is likely, Telstra's recovery approach may lead to over-recovery of IDS group costs, it is still relevant to estimate the amount of costs incurred by the IDS group as an upper limit on the amount that Telstra should appropriately be able to recover.

In the ACCC's draft decision, it accepted the advice in Consultel's interim report that the tasks carried out by the IDS group would be likely to be more automated than those carried out by the DAC group, and that it might reasonably be expected that there would be less IDS labour cost per connection than for the DAC. Consultel derived a cost for efficient IDS group activity based on the avoidable labour costs if no ULLS connections were made, and estimated that this would be in the region of **[c-i-c]** depending on overhead cost uplift. Based on this assessment, Consultel

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[91] While information on the tickets of work in 1999-00 has not been presented to the ACCC, the ACCC further notes that Telstra has previously said that there were ***[c-i-c]*** connections on new estates only in 1999-00: Annexure E to Telstra, *Submission in relation to the methodology used for deriving prices proposed in its undertakings*, 13 February 2003. The ACCC expects that there would be many more non-new estate connections and non-connection tickets of work.

considered that the Telstra's costs claims (of $16.62 for LSS connections) for the IDS group were likely to be excessive.[92]

Telstra provided some further information in its submission to the ACCC's draft decision. Telstra argued that Consultel's assessment did not account for all of the tasks performed by the different areas of the IDS group and also inappropriately assumed only one IDS staff member would be removed if ULLS and LSS connections were not made.

Consultel's final report revises its basis for calculating the cost of the IDS group. The revised basis considered that if no LSS connections were made, around **[c-i-c]** staff in the IDS Deployment centre would no longer be required for the **[c-i-c]** connections, and that if these staff members were paid at $50 per hour, this would mean that the avoidable cost associated with the IDS group for one LSS ticket would be **[c-i-c]**.[93]

The ACCC notes that it might also be appropriate to consider the effect of LSS disconnections, which over a similar period amounted to **[c-i-c]** disconnections. To that extent, **[c-i-c]** Deployment centre staff might be a more appropriate figure to calculate the avoidable staff numbers associated with the **[c-i-c]** LSS tickets of work. Including disconnections, but otherwise following Consultel's approach, suggests that **[c-i-c]** might be a more appropriate figure for the IDS group costs for an LSS connection or disconnection.

The ACCC notes Telstra's comment that this amount does not account for reduction in employees in the Production group or Tactical planning group sections of the IDS group.[94] Based on the description of the Tactical planning group in the **[c-i-c]** statement,[95] the ACCC does not consider that the amount of employees in this group would be variant to a decrease in the number of tickets of **[c-i-c]**.

The Production group, which Telstra states reviews tickets of work to ensure that they contain sufficient details,[96] might be at least partly variant to ticket numbers, although as Telstra has not provided the number of staff employed in the Production group a direct calculation is not possible. The ACCC notes Consultel's advice that it considers that reductions in staff time would largely come within the Deployment centre.[97] The ACCC also notes that the Production group's tasks, which focus on correction of tickets of insufficient detail, imply that the group would be much smaller than the Deployment centre, given that it would not be expected that tickets of work would consistently have insufficient detail. Accordingly, the ACCC considers that any extra allowance for Production group activities would be relatively small.

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92 Consultel interim report p. 39

93 Consultel final report p. 37

94 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's Draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, p. 12.

95 **[c-i-c]** *Statement of **[c-i-c]***, 7 July 2005, p. 4

96 Ibid, p.3

97 Consultel, *Comments on Telstra response regarding LSS undertaking interim report*, 24 February 2006, p. 11

The ACCC considers that **[c-i-c]** is an appropriate cost allowance for IDS group functions for LSS connections and disconnections. To the extent that an allowance might be required for Production group activities, the ACCC considers that it would be relatively small compared to Deployment group costs. The ACCC also notes that these amounts are not necessarily related to efficient costs, as they are based on Telstra's current setup for the IDS group.

Overall conclusions on back-of-house costs

The ACCC considers that significant questions remain about the appropriateness of Telstra's cost claim methodology based on the average cost for back-of-house activities. While the above discussion has focused on the IDS group, the ACCC notes that questions could also be raised about the cost allocation approach used by Telstra for the DAC, given that it would be expected that there would be some element of fixed cost in that group as well.

This issue may mean that there should appropriately be a discount to the costs estimated for back-of-house activities, given that some or all of these costs may be already being recovered.

Even given this issue, it is appropriate to calculate the appropriate costs for the DAC, WCSG and IDS involvement in LSS connections and disconnections. The ACCC has accepted Consultel's estimated costs of **[c-i-c]** for the DAC involvement in LSS connections and also accepts the recommendation that WCSG tasks in LSS disconnections should be fully automated. It considers that Consultel's suggested value for IDS groups costs for LSS connections and disconnections should be revised upwards to **[c-i-c]**. Overall, the ACCC is not satisfied that Telstra's claimed back-of-house costs are appropriate.

6.4.6. Disconnection charges

In contrast to LSS connections, there was strong disagreement among interested parties over how, in technical terms, the disconnection of the LSS should take place and whether Telstra need incur significant costs in disconnecting such services, warranting a separate $90 charge.

The rationale for the different approaches to disconnection is discussed below.

Telstra's view

The processes and tasks undertaken in Telstra's exchanges to effect LSS disconnections are described in detail in the statement of **[c-i-c** Natalie Luscombe**]**.[98]

Telstra claims it is necessary for it to immediately physically disconnect an LSS, as a separate and discrete process, if a particular access seeker no longer requires the LSS to service a particular end user with a broadband service. Telstra contends that, if it were not to disconnect the LSS, then the PSTN voice service would continue to be run through a connection to the access seeker's equipment and could be impaired by that connection because the access seeker has no interest nor obligation to protect that connection to its equipment (and the quality of the voice service) since it no longer offers a LSS-based service using that connection.

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98 **[c-i-c]**, *Statement of **[c-i-c]***, 25 May 2005, pp. 13-14.

In circumstances where an end user customer is seeking to churn from one access seeker's LSS-based broadband service to another, Telstra appears to acknowledge that, potentially, the LSS disconnection process required for the 'losing' access seeker could be coordinated with the connection process required for the 'gaining' access seeker. However, Telstra states that such cordination would require an industry agreed notification process. It also implies that it should not be unilaterally obliged, in the context of an undertaking, to institute such a process.

As stated by Telstra,[99]

> The disconnection costs are necessarily incurred by Telstra even if the end user customer chooses to acquire services from another SSS access seeker. This is because the request to disconnect the old SSS and connect the new SSS are not provided to Telstra simultaneously[4]. [Footnote 4: If an access seeker submits an application for SSS but an existing SSS was still in place then the request would be rejected.]

and

> There is no industry agreed process to facilitate the migration of SSS between carriers including the return of the end user to Telstra. Since the disconnection and possible reconnection process is end user driven and orders are lodged with providers at different times, little opportunity presently exists to co-ordinate the disconnection and reconnection orders. This is particularly problematic when a service is returned from an SSS access seeker to Telstra as Telstra's retail front of house staff have no visibility of the previously supplied SSS service.

Views of other interested parties

The CCC contends that it is not generally a technical necessity for Telstra to immediately disconnect either a ULLS or LSS upon cancellation, and that jumpers can and should be left in place.[100] At a later time, disconnection should be coordinated with a re-connection so that the process becomes a single process with a single charge levied on the 'gaining' access seeker. The charge would cover all the costs of the process and no charge would be levied on the 'losing' access seeker for disconnecting the 'old' LSS. In short, jumpers can be left in place pending notification for re-use of the copper pair by another provider.

In the CCC's view, the principle of only the 'gaining' service provider paying promotes the more efficient management of connections and disconnections. The CCC argues that a separate charging regime encourages Telstra to inefficiently separate the two processes with ultimately higher costs being passed on to the consumer.

ACCC's final view

Technical matters

Consultel commented in its Interim Report on the need, as claimed by Telstra, for an 'immediate' physical disconnection of the jumpers required for a LSS upon cancellation of that LSS.

On the technical argument that the quality of the PSTN voice service could be adversely impacted by a failure on the part of Telstra to 'immediately' remove jumpers, Consultel commented that, in practice, there is virtually no likelihood of any

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99 Telstra, *Telstra's submission in support of the LSS connection and disconnection charges undertaking dated 13 December 2004*, February 2005, pp. 4, 5.

100 GQAAS, p. 13

degradation of voice quality occurring through a fault developing in the access seeker's equipment because of the nature of the access seeker's equipment.[101]

In its response to this particular contention, Telstra, in its February 2006 submission, maintains that there is '…a possibility that the access seekers' equipment may have a fault which causes a PSTN difficulty.'[102] In reply, Consultel argues that, as the PSTN service has been running successfully through the access seeker's DSLAM while the LSS has been in use by that access seeker, there would not be a high probability of a fault emerging.[103]

Consultel also notes that Telstra has not defined precisely what an 'immediate' LSS disconnection means, that is, the period of time between when a cancellation order is received and the despatch of a technician to perform the physical act of disconnection. It suggests it is unlikely that a technician would be despatched 'within the hour' lest the PSTN voice service be degraded.[104] Rather, Consultel supposes that Telstra could readily despatch a technician, though not for the express purpose of performing the LSS disconnection alone, in the course of the Connect system scheduling and batching this activity along with other activities required at the particular exchange, '…on the same day or within a small number days of the date Telstra would otherwise wish to schedule the activity'.[105] Hence, the opportunity for a fault to develop with respect to the PSTN voice service would be so abbreviated as to effectively dismiss any concern that the PSTN voice will be adversely affected.

Indeed, Consultel raises the possibility that this may, in fact, be how disconnections are actually currently effected by Telstra for all but the most remote or unpopular exchanges, that is, they do not occur 'immediately', in the sense of being 'within the hour', nor as a result of the scheduling of a single trip to effect that disconnection but, rather, this work is scheduled in with other activities to be performed some time soon after, or within a small number of days, from when the cancellation order has been received.

The ACCC notes that it would be an option for such a process to be adopted by Telstra, if, in fact, it is not already in use. This would obviate the need for a LSS disconnection to attract the full travel cost of a single trip and would, in the ACCC's view, represent an efficient scheduling process, without adversely impacting on the PSTN voice service, since the window of time for the apparently remote possibility of a fault occurring with the access seeker's equipment would likely be so small as to effectively eliminate any risk to the voice service.

Consultel commented in its Interim Report that the issue of a potential fault developing and causing voice quality problems could be addressed by a variation to clause 4.1 of the LSS undertaking to extend the period under which the access seeker has an obligation not to interfere with the PSTN voice service to beyond cancellation

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101 Consultel final report, pp. 54-5.

102 Telstra, *Submission in response to the ACCC's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006, p. 15.

103 Consultel, *Comments on Telstra response regarding LSS undertaking interim report*, 24 February 2006, p. 13.

104 Ibid p. 12.

105 Ibid, p. 12.

of the LSS to when physical disconnection occurs. However, on this suggestion, Telstra states that it is not prepared to risk reliance on the access seeker managing its equipment where the access seeker no longer has an interest in maintaining that equipment following the cancellation by it of the LSS that used that equipment.[106]

On the argument that an access seeker could continue to use the LSS after cancellation, and that immediate disconnection should occur to prevent this, Consultel suggests this could be addressed by an arrangements that the relevant port on the access seeker's equipment be quarantined for 'a week or two' before it can be re-used by the access seeker.[107] As noted above, Consultel considers this would provide sufficient time for Telstra to effect the disconnection. Telstra, however, considers the implementation of such a process would add a layer of complexity and cost.[108]

Telstra also submits that an access seeker may not accept retaining a connection to Telstra's voice customer which would deny it an opportunity to use the equipment for other customers.[109] In response, Consultel has noted that one access seeker had indicated a willingness to restrict use of its equipment, by the quarantining of the relevant port '..for a few days or perhaps weeks' after cancellation if this prevented the levying of the $90 disconnection charge.[110] Moreover, Consultel notes that this level of inconvenience would be similar to that which currently exists when a cancellation is made and when access seekers are advised that their port can be re-used for another customer.[111]

Finally, with respect to a churn process that would enable one access seeker's LSS disconnection to be another access seeker's LSS connection, and thereby allow for incidental and negligible disconnection costs to be recovered in a single connection charge, Consultel considers that Telstra has a model and precedent it can use to readily develop such a process.[112] 'One-step DSL transfers' were introduced in 2003 whereby the transfer of Telstra's wholesale DSL services could occur as a single process rather than two separate processes – a disconnection and reconnection. The ACCC notes that this has meant that there is no separate disconnection and connection charge for wholesale ADSL.

In its submission in response to the ACCC's draft report, Telstra contests the proposition that the coordination of disconnections with connections can be readily implemented in the way contemplated by Consultel and disputes the claim that the

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106 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's Draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, p. 16.

107 Consultel final report. p. 56.

108 Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's Draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, p. 17.

109 Ibid.

110 Consultel, *Comments on Telstra response regarding LSS undertaking interim report*, 24 February 2006, p. 13.

111 Ibid.

112 Consultel final report p. 52

DSL transfer process provides an appropriate model and precedent for a LSS churn process. [113]

Telstra notes that disconnections have not, in the past, been sufficiently large enough to warrant the investment of resources to develop a coordinated process and an efficient operator would not have made such an investment nor imposed the costs of such a process on a relatively small number of access seekers.[114] However, it states that such a system is being developed and will be trialled in 2006:

> In light of changing demand patterns, Telstra has now initiated a project to develop an automigration system for SSS and intends to trial this system in 2006. For such a system to be effective, it will require that all relevant parties agree to appropriate transfer arrangements to allow end-users to move between access seekers.[115]

This expression of intent by Telstra to implement a LSS churn process does not seem to imply that such a system is especially difficult for Telstra to develop, although such a system would require consultation and agreement from access seekers on transfer arrangements. The ACCC would welcome information from Telstra on the nature of the process they are trialling and with respect to the consultation arrangements Telstra considers are needed to give effect to proposed transfer arrangements.

The ACCC notes that it is within Telstra's capability to institute a churn process for the LSS, subject to consulting with access seekers, since it alone can control and coordinate the connection and disconnection work done on the MDF in its exchanges. While Telstra can also initiate an industry (multilateral) process through ACIF to address this aspect in the longer term, this does not prevent it from initiating improvements to its processes in the meantime.

In the ACCC's view, the act of a 'losing' disconnection should be coordinated with the act of a 'gaining' connection. With respect to the latter, the ACCC considers it would be a more efficient use of resources for a coordinated process to be developed and for a single connection charge to be levied on the gaining provider to recover all costs of the transfer process if the end-user churns from one provider to another. The ACCC considers that an operationally separate Telstra would have an incentive to introduce such a process to ensure maximum use is made of the LSS and that the delays in developing such a system may reflect Telstra's reluctance to encourage use of the LSS since it risks some erosion of its market share of ADSL-based services. Telstra appears to have resisted the development of a LSS churn process. This has raised costs and thereby constrained the use of the LSS by access seekers.

However, the ACCC notes that an LSS disconnection charge may be warranted when disconnection is caused by other than a customer churning from one access seeker to another, or back to a Telstra wholesale or retail ADSL service. For example, this would occur if a pre-existing end user customer of an access seeker no longer required any service or sought retention of a voice service only. However, the ACCC notes Consultel's advice that this disconnection could be delayed, if it is not already, without materially impacting on Telstra's voice service, and batched with exchange-

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[113] Telstra, *Submission in response to the ACCC's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005,* p.14.

[114] Ibid, pp. 14-15.

[115] Ibid, p. 14.

based activities to permit travel cost economies and a significantly lower disconnection charge than the $90 proposed by Telstra.

Accordingly, it is the ACCC's view that a disconnection charge should only apply in limited circumstances following the cancellation of a LSS. These circumstances have not been limited in the LSS undertaking. Furthermore, where it is appropriate for a disconnection charge to be levied, the ACCC considers this charge should, as discussed below, be discounted from the $90 proposed by Telstra.

For the purpose of this undertaking assessment, the ACCC is not required to propose an appropriate disconnection charge nor churn arrangements that would obviate the need to charge for disconnections in certain circumstances. Rather, it needs to assess whether, and be satisfied that, the access undertaking and the proposed charging arrangements contained in the access undertaking are reasonable.

Costing

The ACCC has noted above that it would be an option for Telstra to perform (non-churn) disconnections such that these do not require a single trip to effect that disconnection. Instead, they would be scheduled with other activities to be performed some time soon after the cancellation order is received. This would obviate the need for a LSS disconnection to attract the full travel cost of a single trip and would, in the ACCC's view, represent an efficient scheduling process. The ACCC considers that this would not adversely affect the PSTN voice service, since the window of time for the apparently remote possibility of a fault occurring with the access seeker's equipment would likely be so small as to effectively eliminate any risk.

Apportioning a fraction of the full cost of travel for a LSS disconnection, reflecting a practice of delaying a disconnection until somewhat later than 'immediately' but sooner than indefinitely, can be distinguished from postponing the LSS disconnection to such an extent that no travel cost is warranted. This approach was suggested by Telstra for postponing ULLS connections, and was discussed in and accepted as a preliminary view by the ACCC in the draft decision for ULLS and (some) LSS disconnections .[116]

In its submission in response to the ACCC's draft decision, Telstra did not indicate whether the revised third party 'singular' jumpering contracts covered LSS disconnections as well as connections. It is possible that the third party work covered by these contract rates would include jumpering work and travel to exchanges to effect disconnections. The costs to Telstra of effecting a disconnection in the immediate manner it advocates would appear to be similar to those incurred by third party contractors to effect 'single' and unmanaged LSS connections. Since the ACCC considers it appropriate to use these rates to approximate the cost of 'single' unmanaged LSS connections, then these rates could be similarly used as a proxy for the costs of non-churn disconnections.

An alternative approach to costing non-churn disconnections is Consultel's proposal that a zero travel cost be apportioned reflecting the indefinite postponement of LSS connections. The ACCC notes that Consultel's costing of LSS disconnections, based on this approach, yields a total cost less than a cost based on using third party

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[116] ACCC *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005, pp. 50-52.

contractor rates, as has been applied in Table 6.4.8 below. For its final decision, the ACCC notes that it does not have to form a view as to whether there should be a zero travel cost for LSS disconnections, since a cost based on third party rates (which include travel costs) is still significantly below Telstra's proposed charge of $90.

6.4.7. Conclusions on direct costs

Table 6.4.8 below includes:

- Telstra's proposed geographically averaged connection and disconnection charges of $90
- Telstra's total claimed costs
- the ACCC's estimates of what it considers are more appropriate connection and disconnection costs. These have been based on conclusions in the preceding sections of section 6.4.

Table 6.4.8 [c-i-c LSS connection and disconnection costs and charges

	LSS connections				**LSS disconnections**			
	Band 1 ($)	Band 2 ($)	Band 3 ($)	Band 4 ($)	Band 1 ($)	Band 2 ($)	Band 3 ($)	Band 4 ($)
Telstra's proposed charges	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**90**
Telstra's total claimed costs	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]
Net or modified costs[1]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]	[c-i-c]

1. These estimates are derived from ACCC estimates of costs for travel, jumpering, vehicles and tools (discussed in sections 6.4.2, 6.4.3 and 6.4.4), ACCC estimates of back-of-house costs (discussed in section 6.4.5) and Telstra's estimated materials costs (relevant to connections only).

As shown in Table 2, while Telstra's proposed averaged charge of $90 for both LSS connections and disconnections is below its modelled costs, the charges exceed the ACCC's estimates of total costs, particularly in Bands 1 and 2. The ACCC's weighted average cost[117] estimates are **[c-i-c]** and **[c-i-c]** for connections and disconnections respectively.

The main reasons for the discrepancies between Telstra's modelling and the ACCC's estimates of costs relate to differences over allowances for:

- travel costs

[117] Weighted according to the geographic distribution of Telstra's copper lines.

- costs of doing jumpering work in exchanges.

In the ACCC's final view, Telstra's modelled travel costs are well in excess of what Telstra actually incurs, and exceed what an efficient operator would likely incur. This is because Telstra batches or aggregates LSS connections and disconnections with other exchange-based work, particularly its own (near identical) ADSL service connections, which its cost modelling does not reflect. Telstra's cost model includes the full (average) cost of a dedicated trip to an exchange whereas the ACCC consider only a fraction of the full travel trip cost should be apportioned to any one connection or disconnection. The ACCC also notes that the third party contractor information provided by Telstra in its February 2006 submission obviates the need to separately calculate the travel cost.

Telstra also models the jumpering cost, based on its hourly labour costs and estimates of time taken to perform the jumpering work in the exchange. The modelled costs for jumpering and travel are well in excess of the rates charged by third party contractors to travel to exchanges and perform similar work. The ACCC considers that these lower benchmark rates are more reflective of efficient costs than the costs modelled by Telstra.

Furthermore, Table 6.4.8 does not show that there are circumstances where, in the ACCC's final view, a *zero* disconnection charge is warranted.

In section 6.4.6, the ACCC concluded that a LSS disconnection charge should not be levied as a separate charge where the disconnection of an LSS is occasioned by a customer churning to a new provider (or back to Telstra wholesale or retail). In such a scenario, the disconnection can be postponed and effectively subsumed in the one new (re)connection process and recovered in the charge levied for this. To charge an additional $90 to the 'losing' disconnecting access seeker on top of the $90 charge levied on the 'gaining' connecting access seeker would be an over-recovery of costs.[118]

Also, the ACCC's estimates of disconnection costs in Table 6.4.8 reflect a travel component. The adoption of an assumption that no travel costs should be incurred to make disconnections, as discussed in section 6.4.6, would reduce these cost estimates. For example, the disconnection cost for Bands 3 and 4 would be reduced to at least the **[c-i-c]** cost for Bands 1 and 2, and the weighted average disconnection cost would fall to the same value. As this level of cost would include a travel component appropriate for metropolitan areas, it could be argued that it would be appropriate to reduce the cost further (for disconnections in all Bands).

The ACCC's final view on the statutory criterion relating to the 'direct cost of providing access to the declared service' is that the undertaking charges are not commensurate with the costs that Telstra need directly incur to make connection and disconnection of the LSS. Telstra's direct costs of making connections should be closer to the costs that third party contractors incur in performing the same connection and disconnection work rather than the costs Telstra has modelled. Also, some adjustment should be made to 'back of house' costs to arrive at a more appropriate

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[118] If the customer churns back to Telstra then Telstra, as the 'gaining' (wholesale or retail) provider, could recover the disconnection costs in connection fees for new services applied to wholesale and retail customers.

measure of these costs required to support the connection and disconnection tasks. Finally, Telstra need not directly incur significant costs of disconnection in instances where those costs could be subsumed in a re-connection process, as discussed in section 6.4.6.

6.5. Promotion of the LTIE

In assessing whether particular terms and conditions are reasonable the ACCC must have regard to whether those terms and conditions promote the long-term interests of end-users (LTIE) of carriage services or services supplied by means of carriage services. In determining whether the terms and conditions in an undertaking promotes the LTIE, the Act requires the ACCC to have regard to the extent to which the terms and conditions in the undertaking are likely to result in:

- the objective of promoting competition in markets for listed carriage services
- the objective of achieving any-to-any connectivity in relation to carriage services that involve communications between end-users
- the objective of encouraging the economically efficient use of, and economically efficient investment in
    - the infrastructure by which listed services are supplied
    - any other infrastructure by which listed services are, or are likely to become, capable of being supplied.[119]

To assist with the ACCC's assessment whether the terms and conditions promote the LTIE and are likely to result in the achievement of the objectives referred to above, the ACCC has considered whether accepting the terms and conditions in the undertaking would better promote the LTIE than rejecting the undertaking. The ACCC considers that this 'future with and without' test is a useful aid to assist its assessment of the LTIE criteria.[120] In conducting this analysis, the ACCC has compared the likely outcome if the undertaking was to be accepted against the likely outcome in the event the undertakings were rejected.

Before formally considering the various aspects of the LTIE, especially with respect to the competition analysis, it is relevant that the ACCC review the question of the application of the undertaking connection charge to MNM scenarios.

6.5.1. Application of proposed charges to 'Managed Network Migrations'

In its Draft decision, the ACCC expressed a concern that the LSS undertaking did not sufficiently give effect to Telstra's purported intention to restrict coverage of the proposed connection charges to 'single' connections and not "Managed Network Migrations" (MNMs).

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[119] The Act was recently amended to provide for consideration of the efficient investment in any other infrastructure by which listed carriage services are, or are likely to become, capable of being supplied. See the Telecommunications Legislation Amendment (Competition and Consumer Issues) Act 2005.

[120] Seven Network Limited (No.24) [2004] ACompT (23 December 2004).

Single connections, unmanaged bulk connections and MNMs

Telstra makes LSS connections for access seekers in different ways. Firstly, connections may be made as part of what Telstra calls MNMs. These involve the connection of a number of LSSs at a particular exchange at a particular time, as agreed between Telstra and the access seeker. The MNM requires management over and above the more routine management resulting from the scheduling by Telstra's Connect system. The ACCC understands that Telstra currently limits MNMs by reference to the number of connections made in one exchange and that the minimum number of connections for an MNM is currently 50 connections, although Telstra has indicated that a smaller number of services may, in some circumstances, also qualify for MNM charges.

The ACCC is aware that at least one access seeker disputes the Telstra definition of a MNM by reference to a 50 services limit. The ACCC has been asked to make a determination on this MNM definitional issue as part of an access dispute currently being arbitrated by the ACCC.

Secondly, an access seeker may order an LSS for a particular end user and that connection is made as a result of a dedicated trip made to an exchange to make that connection. This can be characterised as a 'single' connection for which there is no additional management over and above the use of the Connect system. This type of connection is clearly contemplated by the undertaking's $90 charge.

However, as noted in section 6.4.4, a particular LSS connection may also be scheduled by the Connect system to be performed along with other LSS connections on one single trip to a particular exchange. These connections are bulk connections of the LSS requiring no additional management beyond that performed automatically by the Connect system, and could be terms 'unmanaged' bulk connections. The undertaking applies the $90 connection charge to these connections as well as the simple single connection. This is significant when considering the appropriate charges that should apply, as noted above in section 6.4.

Application of the undertaking to MNMs

The ACCC noted in its draft report that the language of the undertaking does not distinguish between connections in a single event context (broadly defined to include unmanaged bulk connections) and connections in a MNM context, no matter how that latter might be defined. Rather, the undertaking states that the charges therein apply whenever a LSS is connected and is silent as to the treatment of MNMs.

The ACCC also considered that the costs to Telstra for connections (per service) in an MNM process are likely to be different and lower than those applying in the (broadly defined) single connection process. The ACCC anticipated that there may be travel and jumpering efficiencies available in the MNM process that would reduce costs but noted that there may also be additional overheads for management of the migration process. The ACCC, therefore, considered that it would not be appropriate that the undertaking prices are enforced in a MNM.

Telstra's submission in response to the Draft decision responded directly to the ACCC's concern about the failure of the undertaking terms to restrict application of the charges therein to single events in the following terms: [121]

> The Undertakings are not intended to apply to managed network migration connections and Telstra is negotiating separately with the relevant access seeker as to the appropriate prices MNMs
>
> and
>
> If the SSS Undertaking were accepted by the Commission, Telstra would continue to negotiate the terms and conditions for the supply of SSS on an MNM basis.

The ACCC has noted previously that it is appropriate, in forming a view on potential uncertainty as to the application of the $90 undertaking charge to MNMs, that supporting submissions be used by the ACCC to clarify the proper construction of an undertaking.[122] The ACCC now notes that Telstra has endeavoured to clarify that it is not its intention to apply the undertaking charge to MNMs and the ACCC welcomes this clarification and intention.

Definition of an MNM

In its Draft decision, the ACCC also stated that the way in which MNM connections are defined was also relevant to its consideration of the undertaking[123]. The ACCC noted that there is currently dispute between access seekers and Telstra about the definition of MNMs and that, if the definition of an MNM was left open for Telstra to unilaterally determine (e.g at 50 services per migration), then this may provide scope for Telstra to levy its $90 undertaking charge in circumstances where it was not appropriate based on costs. If the undertaking was accepted where Telstra could unilaterally determine the definition of an MNM, the ACCC might be unable to apply anything but the $90 charge.

Telstra responded that:

> Telstra would not argue that, in the context of an access dispute, the Commission is bound to make an arbitral determination in relation to MNM connection charges for SSS that is consistent with the accepted SSS undertaking.[124]

The ACCC welcomes Telstra's apparent assurance that it would not seek to have the $90 undertaking charge imposed on MNN scenarios, including, it appears, where parties are in dispute over what should constitute a MNM. Absent all other concerns with the undertaking, the ACCC could only accept the undertaking on the understanding that Telstra would not seek to impose the $90 charge to *any* managed migration scenario, including those it does not regard as qualifying for its discounted MNM charges.

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[121] Telstra, *Submission in response to the ACCC's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005,* February 2006, p. 18.

[122] ACCC *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions,* December 2005, p. 54

[123] Ibid

[124] Telstra, *Submission in response to the ACCC's draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005,* February 2006, p. 19.

While noting and welcoming Telstra's apparent assurances about the application of the undertaking charge to MNM scenarios, the ACCC considers these intentions would be more appropriately reflected in the terms of an undertaking purporting to cover access to the LSS to the extent that these terms relate to connections and disconnections.

6.5.2. Promotion of competition

The ACCC recognises that competition is a process of rivalry. The degree to which competition will be promoted by a decision to accept (or not accept) the undertaking's terms and conditions is difficult to forecast. The ACCC therefore tends to consider the likely effect of competition on such matters as the price, quality and availability of services to end-users. In its assessment of the promotion of competition, the ACCC believes that it is appropriate to consider the connection and disconnection charges that might most improve these outcomes from the end-users perspective. The ACCC considers that this will allow it to better consider the promotion of competition.

The ACCC has formed the view that the efficient costs of LSS connections are significantly less than the total costs modelled and charges proposed by Telstra has modelled for these connections. To permit Telstra to charge more than efficient costs will inflate the costs of access seekers seeking to use the LSS to compete with Telstra in the broadband market using its own DSLAM infrastructure. Thus, potential benefits of lower prices and improved service quality for a range of broadband services provided to end-users would not be realised.

The ACCC has also formed the view that the costs of LSS disconnections could be substantially reduced from those modelled by Telstra, without adversely impacting Telstra's delivery of voice services, if Telstra adopted a coordinated churn or transfer process for disconnections occasioned by customers churning between access seekers.

The ACCC notes that Telstra is currently trialling such a process but that this is not recognised in the terms of the undertaking which proposes a flat $90 disconnection charge, including for the disconnection from one access seeker's equipment and an additional $90 charge for a re-connection to another access seeker. An unnecessary $90 disconnection charge adds to access seekers' costs without any economic justification and unnecessarily raises the costs of access seekers seeking to compete with Telstra using the LSS.

Furthermore, for circumstances where disconnections need to be made for other than churns between access seekers (or back to Telstra), the ACCC considers that these should, in the ordinary course of the efficient scheduling of technical work in exchanges by Telstra's Connect system, be batched with other exchange activities such that access seekers would not to bear the full cost of travel to the exchange. Rather, the charge should be discounted to reflect a fraction of the travel cost of a single trip reflecting likely batching and scheduling efficiencies discussed in this report. To permit Telstra to charge more than efficient disconnection costs will inflate the costs of access seekers and adversely affect its capacity to compete with Telstra to provide broadband services to end-users based on the LSS, as it would need to either absorb the cost or attempt to recover it from its end-user customer at the time of disconnection. Telstra would have an advantage over access seekers in this respect.

The ACCC notes that its concerns about competition largely stem from excessive charges levied on single or unmanaged multiple connections. For 'managed migrations' less than the threshold determined by Telstra, the ACCC's concerns about

the imposition of an excessive $90 charge under the terms of the undertaking have been largely, but not entirely, addressed by Telstra's apparent voluntary assurances that these charges would not apply to MNMs[125].

Arguably, the connection charges for larger scale managed migrations would have a greater impact on competition than the charge for single event connections. If Telstra honours its apparent undertaking not to seek to apply an approved $90 charge to managed migrations, the ACCC could conclude that competition would not be as adversely affected as it would otherwise have been the case where Telstra did seek to apply the $90 charge. The ACCC accordingly considers that, since Telstra's voluntary assurance, it is more comfortable with the view that there may be a lower risk to competition from acceptance of the undertaking.

However, the ACCC's view is that the adverse impact on competition from single connection charges is significant to an assessment of competition in a world 'with the undertaking'. The ACCC would anticipate a better competition outcome in the event the undertaking was rejected. It is also important to note that LSS disconnections of migrated services that may attract a discounted MNM charge will still attract a full $90 disconnection charge under the terms of the undertaking, if and when the service is subsequently cancelled. This would include disconnections as part of churns, which, as noted in section 6.4.6, the ACCC considers are excessive and will hamper competition.

The ACCC remains concerned that the undertaking itself does not state that it will not apply to mass migrations and considers that this would have been preferable to relying on assurances from Telstra.

6.5.3. Any to any connectivity

The ACCC does not consider that the LTIE objective of 'any-to-any connectivity' is a relevant consideration in its assessment of the LSS connection undertakings.

6.5.4. Economically efficient use of and investment in infrastructure'

Cost level

The ACCC considers that the undertaking's charges are not consistent with the most economically efficient use of the infrastructure used to supply the LSS.

This is because the undertaking's charges unnecessarily raise costs to access seekers of using the LSS, and are in excess of the costs Telstra needs to directly incur to make connections and disconnections. This causes an under-utilisation of the infrastructure used to supply the LSS. To the extent this discourages demand for these services, this will lead to less investment by access seekers as well as under-investment by Telstra in that infrastructure. If charges are more reflective of efficient costs, especially with respect to much lower costs that Telstra could incur for churns between access seekers, then the current infrastructure used to supply the LSS would be more efficiently used and provide more efficient signals for new investment by both Telstra and access seekers.

As discussed in section 6.4.6, it would be technically feasible and more cost efficient for LSS disconnections to be performed along with other activities undertaken during the next trip to the exchange, likely be within a small number of days, rather than

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[125] This issue is more fully discussed in section 6.5.1

performed immediately. Indeed, it is possible that Telstra may already adopt this practice for many disconnections (other than perhaps those in the most remote or unpopular exchanges).

To reflect this efficient practice, the charge for a LSS disconnection (where it is warranted) should not reflect the full travel cost of a single trip. Rather, it should reflect a fraction of the cost of a single trip reflecting the batching of LSS disconnections with other exchange-based work. This would be consistent with an efficient scheduling process, without adversely impacting on the PSTN voice service. With respect to the voice service, the ACCC considers that the window of time for the remote possibility of a fault occurring with the access seeker's equipment would be so small as to effectively eliminate any risk to the voice service.

In addition, the ACCC considers that changes could readily be made to Telstra's processes to allow for the coordination of many LSS disconnections with new (re)connections of the service, especially in the context of end users churning between access seekers. In the ACCC's view, the act of a 'losing' disconnection should be coordinated with the act of a 'gaining' connection. The ACCC considers it would be a more efficient use of resources for a coordinated process to be developed and for a single connection charge on the gaining provider to recover all costs of the transfer.

Telstra's expressed intention to implement a LSS 'churn' process seems to imply that such a system would not be especially difficult for Telstra to develop, although such a system would require consultation and agreement from access seekers on transfer arrangements. The ACCC also considers that an operationally separate Telstra would have an incentive to introduce such a process to eliminate impediments to the use of the LSS and maximise the use of its investment in infrastructure used to provide the LSS. The delays in developing such a system reflect Telstra's reluctance to encourage use of the LSS since its use runs the risk of eroding Telstra's market share for end-user ADSL--based services.

The ACCC considers that, if the undertaking was accepted, Telstra would have an incentive to continue the current inefficient process of separating disconnections from connections, to the detriment of the efficient use of, and investment in, the infrastructure used to apply the LSS, and efforts to change such a process would be unduly delayed or thwarted. In the absence of the undertaking and combined with the threat of regulatory intervention to enforce a more efficient coordinated process, the ACCC considers that Telstra will have an incentive to more quickly ensure that an efficient co-ordinated process is introduced and thereby promote the more efficient use of, and investment in, the infrastructure used to apply the LSS.

Averaging of LSS connection and disconnection prices

The ACCC generally considers that cost-based pricing for declared services is preferable. To the extent that costs vary to a material extent between different geographic regions, the proposed geographically averaged LSS connection price will not be cost-based. Telstra has justified its use of an average price on the basis that the costs are not significantly different in the different regions and that it reflects current pricing.[126]

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[126] Telstra, *Telstra's submission in support of the LSS connection and disconnection charges undertaking dated 13 December 2004*, February 2005, p. 3.

It could be argued that a geographically averaged pricing structure distorts the economically efficient use of and economically efficient investment in infrastructure by which listed services are supplied or capable of being supplied. This is because the averaged price paid for the service might encourage access seekers to make greater use of the LSS in higher-cost areas and lower use in lower-cost areas than they would under a price structure where price reflected cost. Access seekers investment in facilities that would be used in conjunction with the LSS might be similarly distorted.[127]

Accordingly, the ACCC must consider the effect of the proposed averaged pricing structure on the economically efficient use of and investment in infrastructure. Any effect on the building of competing infrastructure might also have a flow-on effect on competition.

Overall, the ACCC does not consider that the geographically averaged price for LSS connections and disconnections will have significant adverse implications. The ACCC considers that the geographic differences in the LSS connection price are relatively small and so any distortion would be similarly small (particularly given that connection and, where appropriate, disconnection charges are once-off in nature).

Based on its understanding of the issues and the information available in this assessment, the ACCC considers that it would not be inappropriate to continue having averaged connection prices, given the small geographic difference in cost. The ACCC also notes that the geographic differences for the ACCC's modelled costs are smaller than the geographic differences for Telstra's costs, and notes Telstra's submission that the averaged price reflects current pricing for the LSS.

Overall the ACCC considers that while averaged pricing may have some distorting effect on the economically efficient use of and investment in infrastructure (and consequent effect on competition), the effect is likely to be small in this case.

6.5.5. Conclusions on LTIE

The ACCC considers that the LTIE would not be promoted by accepting the undertaking. This is because competition for end-user customers would be inhibited through inappropriately high access seeker costs. The ACCC also considers that the economically efficient use of and investment in infrastructure would not be promoted in that Telstra's proposed charges would lead to an under-utilisation of the infrastructure used for and with the LSS.

The ACCC also notes its comments about the averaged pricing structure for LSS connections and disconnections, but considers that such concerns are likely to be relatively minor in this case.

6.6. Legitimate business interests

In assessing this criterion, the ACCC will use the 'future with or without' test as an aid.

The ACCC considers that the proposed price terms in the undertaking go beyond what is necessary to ensure that Telstra's legitimate business interests are protected, and that if the undertaking was accepted, Telstra would be likely to recover more than

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[127] The implications of averaging are discussed in more detail in ACCC, *Pricing of unconditioned local loop services—final report*, March 2002, p.18.

necessary to protect those interests. This is because the ACCC considers that Telstra's proposed charges are well in excess of the appropriate costs of providing LSS connections and disconnections.

The ACCC is also of the view that rejection of the undertaking (the 'without' scenario) would not compromise Telstra's legitimate business interests. If the undertaking was rejected, the ACCC considers that it would be more likely that Telstra would charge prices to access seekers that were closer to cost-based and efficient prices, resulting from commercial negotiation or ACCC arbitration. The ACCC considers that cost based and efficient pricing of connections and disconnections would not prevent Telstra from earning a normal commercial return on the LSS. The ACCC accordingly considers that, were the undertaking to be rejected, Telstra's legitimate business interests would not be harmed.

6.7. The interests of persons who have rights to use the declared service

In assessing this criterion, the ACCC will use the 'future with or without' test as an aid.

It is the ACCC's final view that access seekers would be significantly disadvantaged by a decision to approve the undertaking. This is because, under the terms of the undertaking, access seekers will be required to pay excessive charges for LSS connections and disconnections, raising their costs unnecessarily and impairing their ability to compete with Telstra for end-users for broadband services.

Access seekers would also have to rely on Telstra's voluntary assurances that it would not seek to enforce the terms of the undertaking to mass migrations.

If the undertaking was not approved and, through arbitration or the threat of arbitration impacting on commercial negotiations access seekers were able to achieve efficient cost-based pricing for connections (and disconnections), the ACCC considers that access seekers would face more appropriate lower connection and disconnection prices, be better able to compete with Telstra for end-user customers and be more likely to benefit from co-ordinated provisioning procedures.

6.8. Operational and technical requirements

With respect to the criterion concerning the 'operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility' the ACCC's final view is that acceptance or rejection of the proposed undertaking would have no material impact on the safety or reliability with which LSS connections are performed.

The ACCC particularly notes the advice of Consultel that rejection of the undertaking need not impair Telstra's PSTN voice service.

6.9. Economic efficiency

The ACCC considers that the 'future with or without' is a useful aid when considering this criterion.

The ACCC's final view is that, as discussed in section 6.5.4, if it accepted the undertaking, it would be endorsing an economically less efficient or less productive

use of Telstra's resources. The ACCC notes that, by rejecting the undertaking, it may encourage the development of a coordinated or integrated disconnection/reconnection process, driven by industry consideration of the ACCC's views on issues that might be relevant to any subsequent regulatory process.

The ACCC considers that if the undertaking was not accepted and it was not seen to endorse the current separated processes then this would encourage Telstra and the industry to develop a more efficient and co-ordinated process.

Where a disconnection fee is warranted, the ACCC's final view is that it is not clear that a charge set at $90 would impact on the efficiency with which Telstra effects disconnections. This is because, although the $90 fee is excessive relative to costs, Telstra does, as discussed in section 6.5.4, schedule and batch LSS disconnections in a relatively cost efficient manner. Also, it is not clear that Telstra's practice of effecting disconnections 'immediately' to protect the voice service, where this is not technically justified, actually occurs differently from an efficient arrangement where disconnections are performed in batches and scheduled with other exchange-based activities.

In noting that the proposed connection charges exceed efficient connection costs, the ACCC considers that acceptance of the undertaking's $90 connection charge would encourage Telstra to perform LSS connections less efficiently than it currently does or it potentially would. As third party contractor costs appear to be lower than Telstra's own apparent costs (as modelled), rejection of the undertaking would encourage Telstra to utilise these more efficient contractors more often or introduce greater efficiencies into its own activities.

However, the ACCC considers that Telstra's Connect system appears to batch and schedule LSS connections (and probably disconnections) in a largely efficient manner. The ACCC's concern is that these efficiencies are not fully reflected in the costs claimed by Telstra in its cost model and the charges that Telstra thereby proposes to levy recover such costs. An example of this is that Telstra would be batching LSS connections with ADSL connections, as a result of the scheduling activity performed by the Connect system, meaning the actual per unit travel costs are much less than the average exchange trip costs which Telstra has used in its cost model. While the travel per connection costs are too high in the cost model and imply a less than efficient work practice, the ACCC considers it likely that Telstra does batch and schedule connections and disconnections in a relatively efficient way.

6.10. The ACCC's final view on reasonableness

Briefly, the ACCC has formed the following final views on the various statutory criteria relating to assessing the reasonableness of the undertaking's charges:

- the LTIE would not be promoted by accepting the undertaking because:
    - competition for end user data services would be unnecessarily inhibited through the raising of access seeker costs, albeit (probably) not for MNM connections
    - the objective of encouraging the economically efficient use of, and investment in, the infrastructure used to supply the LSS would not be assisted because the proposed $90 charges, by exceeding efficient

costs, would cause an under-utilisation of the infrastructure used to supply the LSS.

- as the proposed charges exceed the direct costs Telstra should incur to connect and disconnect the LSS, acceptance of the undertaking would recover more than needed to protect Telstra's legitimate business interests. The legitimate business interests of Telstra and its investment in facilities used to apply the LSS do not require the undertaking's charges to be accepted. If the undertaking was rejected, the discounted charges that would likely be applied for LSS connections and disconnections would not adversely affect Telstra's legitimate business interests
- the interests of access seekers who have rights to use the LSS would be adversely affected by a decision to approve the undertaking because access seekers will be required to pay excessive charges for LSS connections and disconnections, raising their costs unnecessarily and impairing their ability to compete with Telstra for end-users of broadband services
- the undertaking's charges are not commensurate with the costs that Telstra would efficiently incur to make LSS connections and disconnections. In particular, Telstra need not directly incur significant costs of disconnection in instances where those costs could be subsumed in a re-connection process
- acceptance or rejection of the proposed undertaking would have no adverse or positive impact with respect to the 'operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility'
- the less than economically efficient use of Telstra's technical workforce and contractors to perform connections and disconnections would continue were the ACCC to accept the undertaking and effectively endorse the splitting of the connection and disconnection process in all circumstances. By rejecting the undertaking the ACCC seeks to encourage the development of a more efficient coordinated or integrated disconnection/reconnection process.

The ACCC is required to consider whether the terms and conditions are reasonable, and must consider the criteria set out in section 152AH(1) in reaching its decision.

The ACCC's final view is that, based on its full consideration of all of the matters under section 152AH of the Act, it is not satisfied that the terms and conditions in the LSS connection and disconnection charge undertaking are reasonable.

If a future undertaking on LSS connections and disconnections was submitted, the ACCC would need to reassess the currency and relevance of the assumptions and findings that informed this final decision that the terms and conditions of the undertaking are not reasonable.

6.11. International comparisons

The LSS exists in a number of overseas jurisdictions. The ACCC considers that it may, therefore, be useful to compare the connection prices for similar services in overseas jurisdictions to those proposed by Telstra. This said, the ACCC notes that the usefulness of such a comparison is likely to be limited by differences in, inter alia, the regulatory environment, the market shares of non-incumbents, the state of

competition, the technical specifications of the LSS product and the structure and configuration of the PSTN networks, especially in the numbers and location of exchanges where jumpering work is performed. The ACCC considers that the smaller the number of exchanges to support a given population, the greater the potential for the batching of connections and hence lower costs and fees.

In its draft decision, the ACCC compared Telstra's proposed ULLS and LSS prices to actual prices paid for ULLS and LSS in European countries during August 2004. Subsequent to the release of the draft decision, more recent information for October 2005 has been made available. Accordingly the ACCC considers it appropriate to provide an updated comparison of the monthly rental and connection charges for LSS services in European Union countries. The data is derived from *European Electronic Communications Regulation and Markets 2005 (11th Report)* (the EU report):[128]

Table 6.11.1 EU pricing of LSS[129]

Country	Monthly Price	Monthly Price AUD	Connection Charge	Connection Charge AUD	Monthly Average[130]
Australia[131]	$9.00	$9.00	$90.00	$90.00	$12.75
Austria	€ 5.50	$8.77	€ 109.00	$173.86	$16.02
Belgium	€ 1.60	$2.55	€ 56.00	$89.32	$6.27
Cyprus	€ 1.80	$2.87	€ 36.00	$57.42	$5.26
Czech republic	€ 5.30	$8.45	€ 159.00	$253.61	$19.02
Denmark	€ 4.50	$7.18	€ 38.00	$60.61	$9.70
Estonia	€ 4.70	$7.50	€ 100.00	$159.50	$14.14
Finland	€ 5.60	$8.93	€ 97.00	$154.72	$15.38
France	€ 2.90	$4.63	€ 55.00	$87.73	$8.28
Germany	€ 2.30	$3.67	€ 51.00	$81.35	$7.06
Greece	€ 4.10	$6.54	€ 65.00	$103.68	$10.86
Hungary	€ 4.30	$6.86	€ 150.00	$239.26	$16.83
Ireland	€ 7.50	$11.96	€ 58.00	$92.51	$15.82
Italy	€ 2.90	$4.63	€ 45.00	$71.78	$7.62
Latvia	€ 4.20	$6.70	€ 50.00	$79.75	$10.02
Lithuania	€ 5.50	$8.77	€ 59.00	$94.11	$12.69
Luxembourg	€ 4.70	$7.50	€ 81.00	$129.20	$12.88
Malta	€ 2.90	$4.63	€ 40.00	$63.80	$7.28
Netherlands	€ 1.90	$3.03	€ 37.00	$59.02	$5.49
Poland	€ 7.40	$11.80	€ 78.00	$124.41	$16.99
Portugal	€ 3.00	$4.79	€ 38.00	$60.61	$7.31
Slovakia	€ 9.90	$15.79	€ 171.00	$272.75	$27.16

[128] Commission of the European Communities, *European electronic communications regulation and markets 2005*, COM(2006) 68, 20 Feb 2006 annex 2, pp. 67-72.

[129] The exchange rate is the RBA monthly average rate for October 2005. The ACCC considers that this is an appropriate rate as it represents the price in Australian dollars at the time of the prices.

[130] The monthly average represents the monthly and connection costs spread over 24 months, consistent with the information presented in the draft decision.

[131] Telstra's proposed prices

Slovenia	€ 6.30	$10.05	€ 69.00	$110.06	$14.63
Spain	€ 3.00	$4.79	€ 30.00	$47.85	$6.78
Sweden	€ 5.40	$8.61	€ 83.00	$132.39	$14.13
United Kingdom	€ 1.90	$3.03	£51.00	$81.35	$6.42
EU15 wtd avg	€ 2.81	$4.48	€ 50.58	$80.68	$7.84
EU25 wtd avg	€ 3.40	$5.42	€ 59.13	$94.32	$9.35

Table 6.11.1 suggests that Telstra's proposed LSS connection price is around the mid point of charges for European LSS connections, in October 2005. The proposed connection price is slightly below the weighted average price for the EU25 countries but is above that for the EU15 countries.

As noted in the ACCC's draft decision, the EU report does not categorically state which of the EU countries examined has a LSS disconnection charge and in which circumstances such a charge might apply.[132] For countries which do not charge a LSS disconnection fee, then the charges in Table 6.11.1 should be compared with Telstra's total connection/disconnection charges of $180. This would make Telstra's total charges significantly higher than the EU average.

As the prices in the EU report are relatively recent, the ACCC does not consider that it is necessary to repeat its assessment from the draft decision of the changes in prices for certain countries. The ACCC notes that the October 2005 connection prices quoted above have decreased on average compared to the August 2004 prices quoted in the draft decision. The average connection price for LSS provided in the previous EU report for August 2004 was €79.40, compared to the €59.13 for October 2005.

In conclusion, the foregoing discussion of international connection rates suggests it is relevant to note that

- LSS connection fees in overseas countries suggest Telstra's proposed charges for LSS connections would not be especially unreasonable
- explicit disconnection fees may not generally be levied on LSS connections, or may only apply where there is no gaining operator.

The ACCC again considers that it is difficult to draw definite conclusions based on comparisons to overseas jurisdictions because of possible differences in a host of factors, such as the regulatory environment, market shares of non-incumbents, state of competition, technical specifications of the ULLS and LSS products and structure and configuration of PSTN networks. These differences may be significant enough that no conclusions should be drawn from simple price comparisons.

As far as the undertakings assessment function is concerned, the ACCC considers that the overseas benchmark data it has gathered cannot be used in preference to the conclusions the ACCC has drawn from applying the statutory criteria in its detailed

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[132] The EU report says that Belgium does charge a disconnection fee of €28.33, but does not identify a charge for any of the other countries. The ACCC is aware that other countries do have disconnection charges additional to the connection charge listed in the EU report. The ACCC understands that for the line sharing services available in Ireland and the UK, the disconnection charge only applies when there is no gaining operator.

analysis of ULLS and LSS connections in Australia. The overseas data appears to suggest that Telstra's LSS connection (without added disconnection) charges are not unreasonable, but the ACCC would need to know more about how the LSS charges in relevant overseas countries were based before using the data as more than a guide, and particularly whether and how disconnection fees are charged.

Appendix A. Section 152CGA specification of documents

For the purposes of section 152CGA, the documents that the ACCC examined in the course of making its decision are specified in this section.

Below is a list of submissions that have been submitted to the ACCC and were examined by the ACCC as part of this undertaking assessment.[133] Also listed are other documents referred to by the ACCC in the course of assessing the undertaking.

Many of these submissions have confidential content according to the following key:

- **(1)** confidentiality claim made over entire submission
- **(2)** confidentiality claim made over parts of submission
- **(3)** no confidentiality claim made

The assessment of the two monthly charge undertakings and two connection/disconnection charge undertakings submitted in December 2004 were initially conducted in parallel. For completeness, the ACCC has listed the relevant documents for all four undertakings for that period. To that extent, submissions marked (*) relate largely or entirely to connection and disconnection charges.

A.1. Telstra submissions in support of the undertakings

Confidential versions of these submissions were received by the ACCC on 7 February 2005. Public versions were not received until 2 March 2005.

Telstra, *Telstra's submission in support of the ULLS monthly charges undertaking dated 13 December 2004*, February 2005. **(2)**

NECG, *Appendix 1 to Annexure D of Telstra's submission in support of the ULLS monthly charges undertaking*, November 2004. **(2)**

NECG, *Appendix 1 to Annexure L of Telstra's submission in support of the ULLS monthly charges undertaking*, November 2004. **(2)**

Telstra, *Telstra's submission in support of the ULLS connection charges undertaking dated 13 December 2004*, February 2005. **(2) (*)**

Telstra, *Telstra's submission in support of the SSS monthly charges undertaking dated 13 December 2004*, February 2005. **(2)**

Telstra, *Telstra's submission in support of the SSS connection and disconnection charges undertaking dated 13 December 2004*, February 2005. **(2) (*)**

A.2. Submissions in response to the ACCC's discussion papers

The following submissions were received in response to the ACCC's discussion paper which was released on 9 March 2005.

A.2.1. ACCC discussion papers

ACCC, *Telstra's undertakings for the Unconditioned local loop service—Discussion paper*, March 2005.

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[133] These submissions may refer to submissions to earlier core services undertaking assessments or model price determinations. These may not necessarily be listed here but public versions are likely to be available on the ACCC's website www.accc.gov.au.

ACCC, *Telstra's undertakings for the Line sharing service—Discussion paper*, March 2005.

A.2.2. AAPT

AAPT, *Submission by AAPT Limited to the Australian Competition and Consumer Commission in response to* Telstra's undertakings for the unconditioned local loop service *&* Telstra's undertakings for the line sharing service *discussion papers, March 2005*, May 2005. **(3)**

A.2.3. Competitive Carriers Coalition

Gibson Quai–AAS, *Competitive Carriers Coalition response to the ACCC discussion papers on ULLS and LSS undertakings*, May 2005. **(2)**

A.2.4. Macquarie Telecom

Macquarie Telecom, *Macquarie Telecom's response to Telstra's undertakings on the unconditioned local loop service*, 1 June 2005. **(2)**

A.2.5. Optus

Optus, *Optus submission to Australian Competition and Consumer Commission on Telstra's ULLS undertakings*, May 2005. **(2)**

A.2.6. Telstra

Axiom Forensics, *Telstra Corporation Ltd report on appropriateness of demand assumptions*, 15 April 2005. **(2)**

Bowman, Robert, *Report on WACC for ULLS and LSS*, 26 May 2005. **(2)**

CRA International, *Commentary on PIE II model assumptions*, May 2005. **(1)**

CRA International, *Expert report on access deficit*, May 2005. **(2)**

CRA International, *Expert report on recovery of ULLS-specific costs*, May 2005. **(2)**

CRA International, *Expert report on ULLS and SSS prices—IEN costs*, May 2005. **(2)**

CRA International, *Expert report on ULLS and SSS specific cost models—levelisation*, May 2005. **(2)**

Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's discussion paper in respect of ULLS received March 2005*, 27 May 2005. **(2)**

Telstra, *Telstra's supplementary submission in support of the ULLS connection charges undertaking dated 13 December 2004*, 7 July 2005. **(2) (*)**

Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission's discussion paper in respect of SSS dated March 2005*, 27 May 2005. **(2)**

Telstra, *Telstra's supplementary submission in support of the SSS connection and disconnection charges undertaking dated 13 December 2004*, 7 July 2005. **(2) (*)**

Telstra, *Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 29 September 2005. **(2) (*)**

Telstra, *Second Commission 152BT request in respect of Telstra's access undertakings relating to ULLS and SSS connection and disconnection charges dated 13 December 2004*, 14 October 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 26 May 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 25 May 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 26 May 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 25 May 2005. **(1) (*)**

[c-i-c], *Statement of **[c-i-c]***, 7 July 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 26 May 2005. **(2)**

[c-i-c], *Statement of **[c-i-c]***, 26 May 2005. **(2)**

[c-i-c], *Statement of **[c-i-c]***, 25 May 2005. **(2)**

[c-i-c], *Statement of **[c-i-c]***, 27 May 2005. **(2) (*)**

[c-i-c], *Supplementary statement of **[c-i-c]***, 6 July 2005. **(2) (*)**

[c-i-c], *Statement of **[c-i-c]***, 30 May 2005. **(2) (*)**

A.3. Submissions in response to the ACCC's draft decision

Two submissions were received in response to the ACCC's draft decision which was released on 21 December 2005.

A.3.1. ACCC draft decision

ACCC, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges—draft decisions*, December 2005. **(2) (*)**

A.3.2. SETEL

SETEL, *Assessment of Telstra's ULLS and LSS undertakings relating to connection and disconnection charges— SETEL comments*, February 2006. **(2) (*)**

A.3.3. Telstra

Telstra, *Telstra's submission in response to the Australian Competition and Consumer Commission;s draft decision in respect of SSS undertaking relating to connection and disconnection charges dated December 2005*, February 2006. **(2) (*)**

A.4. Other documents referred to or examined by the ACCC

The following is a list of additional information examined by the ACCC in reaching its final decision on Telstra's LSS connection and disconnection charge undertaking.

ABS, *Labour mobility, 6209.0*, Feb 2004, p. 12

ACCC, *A final report on the assessment of Telstra's undertaking for the Line Sharing Service*, August 2004

ACCC, *A report on the assessment of Telstra's undertaking for the Domestic PSTN originating and terminating access services*, July 2000.

ACCC, *Assessment of Telstra's undertakings for PSTN, ULLS and LCS - Draft Decision*, October 2004.

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

ACCC, *Declaration of local telecommunications services*, July 1999

ACCC, *Final Determinations for model price terms and conditions for the PSTN, ULLS and LCS services*, October 2003.

ACCC, *Line sharing service – Final decision on whether or not a line sharing service should be declared under Part XIC of the Trade Practices Act 1974*, August 2002.

ACCC, *Telecommunications services — Declaration provisions: a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999.

ACCC, *Telstra's 13 December 2004 access undertakings relating to ULLS and LSS connection and disconnection charges – Request for further information under section 152BT of the Trade Practices Act 1974*, 12 August 2005.

ACIF, "C569:2005 Unconditioned Local Loop Service – Ordering, Provisioning And Customer Transfer", 2005.

Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—interim report*, November 2005.

Consultel, *Comments on Telstra response regarding LSS undertakings interim report*, February 2006.

Consultel, *Analysis of ULLS and LSS undertakings and subsequent submissions—final report*, February 2006.

Commission of the European Communities, *European electronic communications regulation and markets 2004*, COM(2004) 759, 2 December 2004.

Commission of the European Communities, *European electronic communications regulation and markets 2005*, COM(2006) 68, 20 February 2006

Explanatory memorandum, *Telecommunications Competition Bill 2002*

iiNet media release, *iiNet expands DSL infrastructure to over 200 exchanges*, 4 March 05.

Optus media release, *Optus steps up competition with DSL rollout*, 22 September 05.

Primus media release, *Primus Telecom broadband network rollout gaining momentum*, 8 September 05.

Seven Network Ltd [2004] ACompT 11

[c-i-c], *Statement of **[c-i-c]***, 22 June 2005.

Sydney Airports Corporation Ltd (2000) 156 FLR 10

Appendix B. Consultel final report – Analysis of ULLS and LSS undertakings and Subsequent Submissions

Appendix C. Consultel – Comments on Telstra Response Regarding LSS Undertakings Interim Report