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Public Policy and Communications

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Dear Richard

Telstra Corporation Limited - Response to request for further information

I refer to your letter of 17 December 2007, in which you requested further information from Telstra in connection with its confidential applications of 9 July 2007 for exemption from the standard access obligations in respect of the declared wholesale line rental and local carriage services ("Exemption Applications").

This letter contains Telstra's response to the Commission's information request. Capitalised terms used but not defined in this letter have the meaning set out in the Exemption Applications

Telstra is of the view that the answers below constitute a substantive response to all of the questions asked by the Commission in the Information Request. However, in some cases, Telstra has been unable to provide the specific information requested by the Commission because:

- Telstra does not possess the information and is unable to acquire that information; or
- a great deal of work is required to acquire the information, in circumstances where it may not address the issues the Commission appears to be concerned about.

These issues are outlined in more detail in the answers to each question below. We would be pleased to meet with the Commission to discuss the information provided, as well as any more general matters it may wish to discuss concerning Telstra's Exemption Application.

For ease of reference, Telstra responds in the same format as the Commission's information request.

1. For each exchange service area (ESA) in the proposed Exemption Area, please provide the number of customers that acquire Telstra's retail basic access service, as at the date of this information request. What was the level

of take-up of these services as at 30 June 2005, 30 June 2006 and 30 June 2007? What are Telstra's projected numbers for these services at 30 June 2008 and 30 June 2009?

Telstra is unable to provide the exact data requested by the Commission, as data of this type is not routinely recorded by Telstra. However, Telstra is able to provide the numbers of retail basic access services customers, disaggregated on an ESA by ESA basis, for the 371 ESAs in the Exemption Area as at: May 2007; June 2007; July 2007; August 2007; September 2007; October 2007; November 2007 and December 2007.

[c-i-c]

Examination of this data indicates that [c-i-c] in the 8 months from May 2007 to December 2007 (see Figure 1).

Figure 1: Changes in Retail Basic Access SIOs in Exemption Area ESAs, May 2007 to December 2007.

[c-i-c]

Nor does it appear likely that the number of retail basic access SIOs will [c-i-c] in any Exemption Area ESAs over the period for which the Commission has requested forecast data. This is confirmed from an examination of Telstra's network-wide product forecasts for retail basic access SIOs over the next four years, as set out in Figure 2. [c-i-c]

Figure 2: Telstra's network product forecasts for retail basic access SIOs.

[c-i-c]

2. For each ESA in the Exemption Area, please provide the number of wholesale line rental services and local carriage services sold by Telstra to access seekers, as at the date of this information request. What was the level of take-up of these services as at 30 June 2005, 30 June 2006 and 30 June 2007? What are Telstra's projected numbers for these services at 30 June 2008 and 30 June 2009?

Telstra is unable to provide the Commission with historic and forecast data in the form requested as data of this type is not routinely recorded by Telstra. However, Telstra can provide historic data for wholesale line rental ("WLR") SIOs for each of the 371 Exemption Area ESAs as at: May 2007; June 2007; July 2007; August 2007; September 2007; October 2007; November 2007 and December 2007.

[c-i-c]

- Almost [c-i-c] WLR SIOs in the Exemption Area were [c-i-c] in the eight months to December 2007;
- Between May 2007 and December 2007, WLR SIOs have [c-i-c] by an average of [c-i-c] per cent each month throughout the Exemption Area, or by [c-i-c]% overall; and

- The [c-i-c] in WLR SIOs has [c-i-c] over the eight months to December 2007, from an average of [c-i-c]% during May to August, to an average [c-i-c] of over [c-i-c]% per month during October to December.

Figure 3: Changes in Wholesale Line Rental SIOs in Exemption Area ESAs, May 2007 to December 2007

[c-i-c]

Figure 4: Distribution of WLR SIO change in Exemption Area ESAs over previous six month, three month and one month periods

[c-i-c]

Forecast estimates for WLR SIOs in the Exemption Area

The likely number of WLR SIOs in the Exemption Area ESAs for 30 June 2008 and 30 December 2008 can be estimated through a linear extrapolation of the monthly WLR SIO data shown in Figure 3 (see Figure 5). This linear extrapolation predicts that by December 2008, Telstra will be supplying WLR to [c-i-c]% of SIOs currently being serviced within the Exemption Area. [c-i-c].

Figure 5: Extrapolation of WLR SIOs in the Exemption Area, June 2008, December 2008

[c-i-c]

Figure 8: Telstra's network product forecasts for WLR SIOs

[c-i-c]

3. For the Exemption Area, please provide the number of Telstra's retail customers that acquire:
 - (a) retail line rental and local calls only
 - (b) a fixed voice services bundle (retail line rental, local calls, national and international long distance calls, and fixed to mobile calls) only
 - (c) a fixed voice services and broadband service bundle

as at the date of this information request.

What was the level of take-up of these services as at 30 June 2005, 30 June 2006 and 30 June 2007? What are Telstra's projected numbers for these services at 30 June 2008 and 30 June 2009?

Telstra cannot provide this information at the level of geographic disaggregation specified by the Commission as data of this type is not routinely recorded by Telstra. However, it is able to provide data at a national level. This data is likely to be indicative of the distribution of Telstra's retail customer base within the Exemption Area. Data is also provided for residential customers only.

Table 1 shows data on the number of residential retail customers who only take basic access and local calls from Telstra (using the HomelinePart product), as well as data for customers who take fixed voice services bundles from Telstra – retail basic access, local calls and other call types (i.e. STD, IDD and F2M).

Currently, [c-i-c]% of Telstra's retail residential customers purchase a full-service fixed voice bundle (including STD, IDD and F2M calls), whilst [c-i-c] per cent purchase retail basic access and local calls only from Telstra. The percentage of customers utilising fixed service bundles is projected to [c-i-c] in 2007/08 and 2008/09.

Table 1: Actual and forecast SIO data for Homeline Part and other Homeline plans, 2004/05 to 2008/09

[c-i-c]

Telstra does not collate systematic data on the number of retail customers who take both fixed line voice services and broadband services from Telstra. Accordingly, information on specific fixed voice and internet product bundles is likely to understate significantly the actual number of customers who purchase both products from Telstra on a retail basis.

Telstra does conduct extensive market research, which enables estimates to be produced on the number of households who purchase fixed voice services and internet services from Telstra, as well as the number of households who only purchase internet services from Telstra. However, this data is not directly comparable to that produced in Table 1 (which is sourced from Telstra billing records).

Table 2: Actual and forecast estimates for number of households purchasing Telstra retail internet services only, and households purchasing Telstra fixed voice services and internet services

[c-i-c]

Currently, Telstra estimates that [c-i-c]% of its residential retail internet customers also purchase fixed line voice services from Telstra. [c-i-c].

4. Does Telstra market its fixed voice services and broadband retail offerings to end-users in the Exemption Area in a different way to geographic areas outside the Exemption Area? If so, what are key features of this marketing strategy and how does this differ from Telstra's marketing strategy in geographic areas outside the Exemption Area? How do ARPUs in the Exemption Area differ to geographic areas outside the Exemption Area? What was the level of ARPUs in the Exemption Area as at 30 June 2005, 30 June 2006 and 30 June 2007? What are Telstra's projected ARPUs in the Exemption Area at 30 June 2008 and 30 June 2009?

Telstra's retail marketing strategy for its fixed voice and broadband services is directly influenced by the level of competition it faces. [c-i-c].

5. What does Telstra consider to be the primary factors that affect whether an access seeker deploys DSLAM infrastructure within a particular ESA?

This is necessarily a difficult question for Telstra to answer, as it includes inferences on Telstra's part about the factors that access seekers take into consideration when deciding whether to undertake a particular investment. Furthermore, given the extensive **actual** deployment of DSLAMs in the Exemption Area,¹ the motivation behind those deployments is perhaps of lesser relevance. This is reflected in the "entry-based" decision rule proposed by Dr Paterson in his report of 9 July 2007:

"That is, the observed presence of active alternatives to LCS/WLR in an ESA is itself a concrete proxy for examination of the underlying market characteristics, as it reflects the industry's judgment that the characteristics of an ESA are such as to be attractive to the deployment of alternative access arrangements."²

To that extent Telstra's Exemption Applications are conservative, since they rely on objective evidence of actual DSLAM-based investments by access seekers.

Nevertheless, to assist the Commission's considerations, Telstra provides the following information.

DSLAM-based access seekers are predominantly profit-seeking businesses which are likely to invest in DSLAM and associated equipment wherever it is profitable to do so. Put another way, "a broadband carrier's decision to enter a market depends on the expected demand, costs and entry by other firms".³

[c-i-c]. Access seekers are also likely to consider the size of the addressable market.

[c-i-c]

Insights into this question may also be gained from publicly available information released by Telstra's competitors. iiNet wishes to 'protect its core' from supplier price shocks;⁴ lower its cost base,⁵ and differentiate itself from competitors that rely exclusively on resale.⁶ SingTel Optus's strategy should be seen in the context of its push to take more of its business on-net,⁷ and to capitalize on strong demand growth for broadband.⁸ Primus aims to deliver faster broadband to its customers,

¹ Paterson Statement on Supplementary WLR/LCS Exemption Applications, 11 October 2007, p. 2.

² Paterson Statement, 9 July 2007, p. 40.

³ Wei-Min Hu and James F. Prieger, "The Timing of Broadband Provision: The Role of Competition and Demographics", AEI Brookings Joint Center for Regulatory Studies Working Paper, p. 9, available from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1004349.

⁴ iiNet Press Release, "Open Briefing iiNet Limited MD on Outlook for FY08", available from <http://www.iinet.net.au/about/investor/07-11-19-corporate-file.pdf>.

⁵ iiNet Annual Report, p. 16, available from http://www.iinet.net.au/about/investor/07-09-25_iiNet_Annual_Report_2007.pdf.

⁶ *Ibid.*

⁷ Source: SingTel Financial Statements, Second Quarter 2007, p. 45. Available from <http://www.optus.com.au/dafiles/OCA/AboutOptus/MediaCentre/SharedStaticFiles/SharedDocuments/2ndqtr0708-MDA.pdf>.

⁸ *Ibid.*

and to reduce its reliance on Telstra.⁹ Primus has also outlined a strategy to extend its network footprint to all the major capitals:

“The DSLAM deployment covers an extensive customer footprint, with facilities in all the mainland State capitals as well as in major regional areas. Primus already has its own DSL infrastructure installed in all the mainland State capitals to service the corporate market.”¹⁰

This is consistent with views expressed by SingTel Optus in its submission:

“Optus notes that from a supply side perspective operators are likely to take a broader view of the market than just a single ESA. For example when Optus is considering whether to take a new product to market it does not enter one ESA at a time; rather it will consider the economics of the product and take a decision to enter in a much larger geographic area, for example, densely populated metropolitan areas”.¹¹

6. In which Exemption Area ESAs is there at least one other service provider offering a connecting fibre backhaul link?

Telstra queries whether the answer to this question has any real bearing on whether acceptance of the Exemption Applications is in the LTIE, because transmission capacity services remain declared under Part XIC of the Act unless the Commission decides to exclude regulation on the basis of its view that effective competition exists on those routes. Consequently, the availability of transmission services to access seekers cannot be characterized as a barrier to DSLAM-based entry.¹² To that end, the Commission may be confident that DSLAM-based access seekers will continue to be in a position to acquire backhaul transmission services either on a declared basis, or from a suite of competing providers.¹³

Nevertheless, Telstra is able to respond to the Commission’s question on the basis of expert reports provided by Market Clarity in the context of Telstra’s applications of 21 December 2007 for exemption from the SAOs in respect of the declared domestic transmission capacity service in CBD and metropolitan areas.

Market Clarity’s report of 19 December 2007 found evidence of two or more access fibre providers (including Telstra) at 260 Band 2 exchanges.¹⁴

Telstra considers that competing inter-exchange links are likely to exist in a sub-set of these 260 ESAs, namely those which satisfy the following requirements:

- i) the ESA has two or more access fibre owners; and either

⁹ Press Release, “Primus Broadband Network Gains Momentum”, available from <http://www.primustel.com.au/PrimusWeb/AboutUs/News/2005+Archive/Primus+Broadband+Network+gains+momentum.htm>.

¹⁰ *Ibid.*

¹¹ SingTel Optus submission November 2007, p. 9.

¹² See Paterson Statement, 9 July 2007, p. 36.

¹³ Paterson Statement, 9 July 2007, p. 36.

¹⁴ Market Clarity, “Research Report on Access Fibre Availability”, 19 December 2007, Appendix 4, Table 1.

ii) it adjoins a cluster of ESAs, each having two or more access fibre owners (including Telstra), that includes at least one CBD ESA for that capital city; or

iii) it adjoins or is part of a cluster of one or more regional ESAs, each having two or more access fibre owners (including Telstra), that includes at least one ESA that is connected to the nearest CBD by a regional transmission route that is either:

- exempt; or
- the subject of Telstra's current application concerning regional transmission routes.¹⁵

These requirements are met in respect of 244 ESAs the subject of Telstra's 9 July 2007 Exemption Applications in respect of the declared WLR and LCS. A list of these ESAs is Annexure B to this letter. Detailed maps of the ESAs in question are provided at Annexure C to this letter.

7. In which Exemption Area ESAs is Telstra the only provider of PSTN switching? For which Exemption Area ESAs is Telstra the only provider with connecting fibre transmission capacity?

Telstra would like to draw the Commission's attention to the fact that, although a carrier needs to possess switching and interconnection capabilities to provide PSTN-equivalent services in any given ESA, the necessary equipment does not need to be actually present in every ESA. Rather, the switching equipment may service several ESAs.

In order to provide an end-to-end PSTN-equivalent voice service, a carrier will require:

- (a) An access network — for example a DSLAM fitted with a PSTN voice line card located in an exchange which is able to connect to a customer via a ULLS service. Alternatively, a carrier could utilise a VoBB solution via LSS (or ULLS) and a DSLAM (this would not require a PSTN voice line card) installed in a local exchange. A carrier could also utilise their own access network — such as the Singtel Optus HFC network.
- (b) Transmission capacity — via either self-owned links, or purchased from another provider such as Nextgen Networks, Pipe Networks, Optus, Powertel or Telstra.
- (c) A routing and switching network.
- (d) The ability to interconnect with other carriers' networks (including the Telstra PSTN).

To provide voice services to end-users, only two of the above four elements (access and transmission) need to be physically present in an ESA. In order to provide a customer with a PSTN-equivalent voice line (based on either emulation or simulation) via LSS or ULLS, an access seeker would require DSLAM-based infrastructure in each ESA. Similarly in each ESA, the access seeker would need

¹⁵ These criteria are adopted from the Smart Statement, 20 December 2007, p. 19. For detailed explanation of the grounds for this proposed test, see Smart Statement, pp. 17-19.

access to transmission capacity, to connect their DSLAM-based infrastructure to the rest of their network.

Routing and switching network

The routing and switching network will vary in size, complexity and geographic scope depending on the size of the access seeker's operations, and the number of customers and traffic volumes on their network. Modern softswitches are highly scalable, permitting access seekers even of relatively modest size to deploy their own switching infrastructure. This has occurred in Australia's fixed-line telecommunications markets; softswitch solutions are currently being provided by relatively small players such as Agile-Internode, to deliver carrier-grade PSTN-equivalent voice services to its customers.¹⁶

It is important to note that the deployment of a switch or "switching-capability" is a design decision for each individual carrier. Larger carriers might decide to deploy several large capacity switches. For example, Telstra currently deploys [c-i-c] geographically-disaggregated circuit-switches, in-line with global best practice for the design of very large-scale PSTNs. The key point to note is that even under current TDM-based architecture Telstra does not deploy its local access switches (LASs) in each of its 5000 plus ESAs. Also, Telstra is planning to upgrade to a softswitch architecture in the future which will, when fully deployed, significantly reduce the number of switching points in the network even further such that switching technology would not need to be physically present in each calling area in which the services are provided (or even in the same city or state). The proposed upgrade to Telstra's switching network is described further in the answer to question 10(a), below.

Interconnection arrangements

The final key element that is required to provide an end-to-end PSTN-equivalent voice service is the ability to interconnect customers that are connected to networks owned by different carriers.

Access seekers can achieve interconnection either through the establishment of a "point-of-presence" that is located within a Telstra point of interconnect ("TPOI"); or the carrier can enter into a hosting arrangement with another carrier that has already established interconnection arrangements with Telstra and other carriers (this is often referred to as "hosting").

[c-i-c] carriers have already established national interconnection arrangements with Telstra. There is also an active market of alternative providers (such as Singtel Optus) offering hosting services to carriers wishing to provide end-to-end PSTN-equivalent voice services, but who do not wish to establish the TDM-based infrastructure necessary for network-wide direct interconnection with the PSTN.

Again, it should be emphasized that it is not necessary for an access seeker to deploy interconnection infrastructure in each ESA within which it wishes to supply voice services. Indeed, if the access seeker chooses to deliver services by entering

¹⁶ See "Internode Plans fixed price VoIP services", *Melbourne Age*, October 14 2004; see also iVox, "Strategic Alliances", <http://www.ivox.com.au/index.php/home/partners/strategic-alliances/>

“hosting” agreements, there is no requirement for any TDM-based interconnection infrastructure at all.

Connecting Fibre Transmission Capacity

Telstra considers this question to be the corollary of that posed in question six. It follows from Telstra’s response to question six that the ESAs in which Telstra is the only provider of connecting fibre transmission capacity are those within the Exemption Area that are not listed in Annexure B. For convenience, these are listed at Annexure D.

8. How many services within each Exemption Area ESA are on lines that are affected by pair gain systems or RIMs?

Telstra answers this question by reference to the Statement of [c-i-c] of 21 February 2007 (Annexure E to this letter), and the Attachment to that statement.

9. In which Exemption Area ESAs is the rack capacity or MDF capacity above 80 per cent? Above 90 per cent? At or near 100 per cent? What is the threshold before Telstra starts to provide an external interconnection cable (EIC) or builds an outside unit at a particular exchange? How many access seekers have taken up the EIC service? What are the terms and conditions of access associated with the EIC service?

Telstra does not have, and therefore cannot provide to the Commission, precise percentage-level capacity data on the utilisation of exchange TEBA or MDF space. The assessment of utilisation and spare capacity in an exchange is a complex process requiring a detailed case-by-case assessment by Telstra’s planning staff. Given the nature of the assessment exercise, which involves visual inspection and engineering assessment on an exchange-by-exchange basis, and the unknown and uncertain factors involved, it is not possible for Telstra to determine (with the degree of precision implied by the Commission’s query) the level of space and MDF utilisation within exchanges.

However, Telstra does produce and publish a list of sites that it considers to have reached capacity either in terms of their TEBA space, MDF space or both. This list, called the “capped exchange list”, is published on the Telstra Wholesale website. The capped exchange list is intended to be viewed by access seekers as a guide. It is possible that there are solutions which an access seeker can propose in order to serve their customers from a capped exchange.

If the exchange is only TEBA space capped (i.e. there is no space left in the exchange for an access seeker to install their equipment), then access seekers can still serve customers by installing their DSLAM equipment in an external housing or nearby building and connecting to the MDF using an external interconnect cable (“EIC”) (see below).

If the exchange is MDF capped (or MDF capped and TEBA space capped), Telstra’s planners have assessed that there is no space available on the MDF for access seekers to connect lines to their equipment.

Table 3 shows that of the 371 ESAs in the Exemption Area, [c-i-c] (or [c-i-c] per cent of ESAs) are not capped in any way. [c-i-c] ESAs have been classified as being TEBA space capped by Telstra, which means that although TEBA space in that exchange is restricted, access seekers can serve customers in that exchange building by using EICs to connect their externally mounted equipment to the MDF (see further discussion below).

This leaves [c-i-c] ESAs ([c-i-c] per cent of the 371 Exemption Area ESAs) in which the exchange is listed as either MDF Capped or MDF Capped and rack capped. In these exchanges, it has been assessed that there is not currently room on the MDF for additional pairs to be installed by access seekers in order to serve customers in that ESA.

Table 3: Exchange status in the Exemption Area

[c-i-c]

In both capped and uncapped exchanges, access seekers have already installed a very significant amount of capacity. Based on their current number of installed ports, access seekers have the potential to serve [c-i-c] per cent of *all* PSTN SIOs in the Exemption Area ESAs.

In order to serve an additional customer in an ESA, an access seeker will require a spare port which is connected to Telstra's MDF. Currently, access seekers are utilising [c-i-c] per cent of the installed ports (in non-capped Exemption Area ESAs) and [c-i-c] per cent in capped ESAs (Table 4). By way of comparison, Telstra maintains utilisation rates of [c-i-c]% for PSTN equipment and [c-i-c]% for xDSL equipment.

Furthermore, it is instructive to compare their installed spare capacity to the current levels of WLR SIOs in the same Exemption Area ESAs. Based on current observed utilisation rates, access seekers could (using only their currently installed ports) serve [c-i-c]% of *all* current WLR SIOs in these ESAs (Table 4). This includes WLR SIOs taken by carriers who have not installed TEBA-based DSLAM equipment.

In addition, in [c-i-c]% of MDF-capped (or MDF- and TEBA-capped) exchanges in the Exemption Area, access seekers have utilised [c-i-c]% of their installed pairs – which is an almost identical percentage to that for non-capped ESAs (Figure 8).

Having regard to the level of spare capacity and the significant scale of existing deployment in the Exemption Area, it is difficult to surmise that capped exchanges are limiting the ability of access seekers to compete with Telstra.

Table 4: Access seeker installed pair utilisation and presence in Exemption Area exchanges, by exchange status.

[c-i-c]

Figure 8: Distribution of access seeker installed pair utilisation by ESA

[c-i-c]

A capped exchange does not mean that other carriers cannot compete

As outlined above, even in capped exchanges, access seekers still have significant spare capacity relative to Telstra and to their existing customer base. It is also possible for access seekers to manage their spare capacity among themselves.

[c-i-c]

External Interconnect Cable

The Commission has asked Telstra for details on the use of, and the relevant terms and conditions for the EIC service. This product enables access seekers to install their equipment externally to the exchange, such as in a nearby building or roadside cabinet. Access seekers can deploy equipment within 500 metres (250 metres for LSS) of the exchange. For example, access seeker equipment can be deployed in a roadside cabinet or in a nearby building.

As of January 2008, Telstra had [c-i-c] customers of the EIC service (with [c-i-c] customers currently having services in use). The EIC service is used in [c-i-c] exchanges, connecting [c-i-c] pairs through [c-i-c] EIC cables. Within the 371 Exemption Area ESAs, EIC is in use in [c-i-c] ESAs.

The Commission has asked for details of any thresholds or limitations Telstra places on the use of EIC by access seekers. There are *no* thresholds (regarding exchange capping) required for an access seeker to request an EIC at a particular exchange. Irrespective of whether there is currently TEBA space available or not, an access seeker can request and deploy EIC. In fact, all of the EICs currently in use in the Exemption Area are being utilised in exchanges that are not capped.

Telstra's EIC information document is available to access seekers on the Telstra Wholesale website.

10. Please provide details on any of Telstra's proposed network upgrades and modifications in the Exemption Area as at the date of this information request for the period until 1 July 2009. In particular, please provide details of:

- (a) Any IP core network upgrades - the date and locations at which Telstra's PSTN switching equipment is expected to be removed.

Whether or not future IP core networks emerge over the coming years and irrespective of whether Telstra continues to deploy a PSTN circuit-switched core network or an IP core network (or something in between) is - from a technical perspective - irrelevant to the considerations of the Commission in the LCS and WLR exemption under consideration. This is because, whether or not IP packet switching is introduced in the core of the network, the end-customers experience in making PSTN quality voice calls on the existing copper-based access network will not be materially different.

Telstra is in the process of upgrading its legacy wireline network to an IP core wireline network. However, the timing for the completion of this network upgrade will depend on a number of factors — including the timing of the deployment of an FTTN.

One aspect of this future transformation will be the replacement of legacy switches (often in the form of large switch installations in exchange buildings) with new IP “softswitches”. [c-i-c]

When this occurs, the migration will be seamless from an end-customer’s perspective. After the softswitches have been deployed and become operational, end-use customers making voice calls will notice no difference in the quality and experience of the voice service.

Differences between time division multiplexing (“TDM”) based switching and softswitching in the core network:

The main difference between Telstra’s existing core network and a future soft-switch-based IP-core network is the means by which calls are switched between network edge devices, i.e. TDM or IP-based. Functionally, the two approaches are basically equivalent.

In the future, Telstra will migrate services from TDM-based circuit switches to IP-based softswitches, whilst maintaining POTS analogue access in the CAN. The migration would be phased over a number of years, with the eventual goal of removing entirely TDM Access Nodes and LAS switches.

The nature of the switching inside Telstra’s “cloud” has no direct impact on the nature of access or interconnection or underlying access-based services offered to end-customers (including wholesale customers).

No impact on ULLS or LSS based access seekers

As Telstra has previously indicated, many access seekers already utilise softswitches in their own core networks, replicating the switching functions provided by Telstra’s PSTN. Modifications to Telstra’s core switching network will not affect Telstra’s access network architecture, nor the point in Telstra’s access network at which a ULLS or LSS is cutover to the access seeker’s DSLAM.

Similarly, the future progressive removal of a metropolitan or Band 2 LAS has no impact on access or interconnection, since LAS technology is not generally used to provide interconnection in metropolitan areas. Rather, interconnection will continue to be provided via dedicated Interconnect Gateway Switches (“IGS”) in each of the 66 Call Collection Areas (“CCAs”), as set out in detail in the [c-i-c] Statement.¹⁷

In summary, the proposed roll-out of Telstra’s softswitch infrastructure has no direct impact on other carrier’s access, interconnection arrangements or the basic services provided or capable of being provided to end customer. Rather it is simply a change in the core network switching arrangements. As shown by the diagram below:

- interconnection continues to be provided via the TDM network (media gateways inside Telstra’s network); and
- access continues to be provided from existing copper access points.

¹⁷ Statement of [c-i-c], 29 June 2007.

Figure 9: Telstra's TDM PSTN switching and interconnection network

[c-i-c]

Figure 10: Interconnection and switching under a softswitch network

[c-i-c]

- (b) Any fibre upgrades to the customer access network - the date and locations, if any, at which Telstra intends to de-commission existing copper lines and replace these with optical fibre between the Local Exchange and Remote Access Units within its customer access network.

There is ongoing uncertainty surrounding access network upgrades from the current copper-based PSTN, to a fibre-to-the-node (FTTN) network. Whether an FTTN network is actually ever deployed, who will deploy this network, how it will be deployed, where it will be deployed and when it will be deployed are still not known. Given these factors, Telstra is not in a position to indicate when any such fibre rollout is likely to take place, or what form it is likely to take. Moreover,, speculation regarding possible FTTN deployment should not affect the assessment of the LTIE in respect of Telstra's current WLR and LCS applications.

The Commission has consistently maintained the view that speculation about the potential impacts of new technologies on telecommunications markets should not affect its immediate considerations. For example, the Commission has given frequent consideration to the possibility that developments in mobile telephony might impact on market(s) for fixed services. The Commission stated in 1999 as part of its Local Services Review:

"The Commission has not included the full range of wireless customer access services in this market, although it does note that future developments may lead to a greater 'convergence' of fixed and wireless markets. These developments include increasing substitution between fixed services and second generation (i.e. GSM and CDMA) mobile services, and the development of third generation (i.e. UMTS) mobile services. In light of uncertainty regarding the timing and extent of any convergence, the Commission preferred to treat wireless services as being outside the scope of this market."¹⁸

Similarly, in its declaration inquiry of 2001-02 in relation to the LSS, the Commission stated:

"Whilst it may be somewhat speculative to assess at this stage, the Commission considers developments such as fixed wireless, mobile broadband wireless, 3G cellular networks, and wireless LAN could potentially represent possible alternatives to a LSS in the future. For instance, broadband wireless networks may represent technically

¹⁸ Commission, Declaration of Local Telecommunications Services, Final Report, July 1999, pp. 37-38.

alternative means by which high-speed communications can be transmitted and received.”¹⁹

The Commission maintained a similar approach in its Fixed Services Review of 2006:

“... the Commission expects that broadband markets will over time be characterized by the entry of new providers utilising new generation and wireless and mobile services, such as 3G (super GSM) and WiMAX technologies. Most notably, wireless broadband accounts for the majority of regional broadband and network operations. However, these developments are still in their early stages, and it is an open question as to what extent and over what time-frame these new networks can viably compete with the existing ubiquitous fixed-line network.”²⁰

At present, press reports and general industry rumour about possible FTTN deployment do not provide evidence of probative weight, such that it should affect the Commission’s assessment of the exemption applications presently before it.

Telstra has made a compelling case for exemption in 371 ESAs, based on verifiable evidence of competitive infrastructure deployment that has already occurred. DSLAM rollout continues apace, and there is every reasonable expectation that it will continue.²¹ In recognition of this concrete reality, ACCC Chairman Mr Graeme Samuel recently stated:

“We have favoured facilities-based competition because we think, ultimately, that that is the more sustainable competition and it does involve, as I have indicated, the installation of switching devices, not the installation of new copper networks but the installation of switching devices, in the Telstra exchanges. The experience over the past couple of years has been, certainly in the many exchanges—and indeed I think the number was something of the order of 360 or 370 exchanges which were those that were initially turned on by Telstra in terms of their ADSL2+ some 12 months ago—that those exchanges were those in which other telecommunications carriers had installed their own ADSL2+ DSLAMs and were providing a real competitive tension [emphasis added] to the broadband service that could be provided by ISPs and carriers to Telstra.”²²

Furthermore, the profits to be gained from deploying a DSLAM network are fuelling ongoing merger and acquisition activity in the telecommunications industry.²³

¹⁹ Commission, Line Sharing Service, Final Determination, August 2002, p. 40.

²⁰ Commission, Declaration Inquiry for the ULLS, PSTN OTA and CLLS, Final Determination, July 2006, p. 32.

²¹ See Telstra, Submission to Commission’s Discussion Paper on Telstra’s PSTN OA Exemption Applications, pp. 29-30. See also “Web Browsing with No Strings Attached”, *Sydney Morning Herald*, 16 October 2007; “iiNet & Internode prepare Naked DSL Launches”, *Communications Day*, 5 November 2007.

²² See Parliament of Australia, Parlinfo Web, available at http://parlinfoweb.aph.gov.au/piweb//view_document.aspx?TABLE=ESTIMATE&ID=103836

²³ “Soul in \$230 million merger with TPG, hints at plans for more acquisitions”, *Communications Day*, 8 February 2008.

By contrast, the possibility of FTTN deployment has not progressed much past the stage of preliminary discussions. Even if present uncertainties were resolved and an FTTN deployment went ahead at some time in the future, it would be a period of years before all exchanges were cut-over to the new network.

Accordingly, while a prudent administrative decision maker should place considerable weight on the overwhelming evidence of ongoing DSLAM rollout, it should not be unduly distracted by speculation about possible FTTN deployment.

How would these developments affect existing and potential DSLAM-based access seekers in the Exemption Area? Are there any notification and/or transitional mechanisms for access seekers in relation to these types of network upgrades? If so, please provide details of these provisions.

Telstra refers to its comments immediately above. Given the current uncertainty about the form that any possible FTTN rollout might take, it is not possible to state with clarity the impact which it might have on DSLAM-based access technologies.

11. Telstra has previously stated that it has no immediate plans to establish a LSS to ULLS managed network migration process due to limited demand for such a service. Is this still Telstra's position?

Telstra's position remains unchanged.

[c-i-c]

Figure 11: Growth in ULLS versus LSS from July 2007 to January 2008.

[c-i-c]

12. In relation to the information provided by Telstra in accordance with paragraphs 1-11 above, what parts of the information (if any) are confidential? In the event that Telstra claims confidentiality to any part of the information, Telstra should provide the ACCC with both a confidential and public version of the information; and set out what process Telstra intends to use for responding to any requests for access to the confidential information.

At this point in time, all information provided in this letter is confidential to Telstra. Telstra will shortly provide the Commission with a public version.

Yours sincerely

Tony Warren
Executive Director Regulatory Affairs
Public Policy and Communications

ANNEXURE A

Monthly estimates of Telstra retail basic access customers, 2007; and

Monthly estimates of Telstra wholesale WLR and LCS services, 2007

[c-i-c]

ANNEXURE B

ESAs subject of the 9 July 2007 Exemption Applications in which Telstra considers there is currently at least one other service provider (besides itself) offering a connecting fibre backhaul link

ESA	Name	State
AARE	ACACIA RIDGE	QLD
AASS	BROOKLYN PARK	SA
ABCK	ALBANY CREEK	QLD
ACOT	ASCOT	QLD
ALBY	ALBURY	NSW
APPX	APPLECROSS	WA
ASCT	ASCOT	VIC
ASHF	ASHFIELD	NSW
ASHM	ASHMORE	QLD
ASOT	ASCOT	WA
ATTA	ATTADALE	WA
BALC	BALACLAVA	VIC
BALG	BALGOWLAH	NSW
BALM	BALMAIN	NSW
BANK	BANKSTOWN	NSW
BATA	BATEMAN	WA
BAUL	BAULKHAM HILLS	NSW
BDWS	BROADMEADOWS	VIC
BEEL	BEENLEIGH	QLD
BEND	BENDIGO	VIC
BKLN	BROOKLYN	VIC
BKWD	BLACKWOOD	SA
BLAC	BLACKTOWN	NSW
BLAK	BLAKEHURST	NSW
BLCT	BALCATT	WA
BMBA	BULIMBA	QLD
BOND	BONDI	NSW
BOTA	BOTANY	NSW
BOXL	BOX HILL	VIC
BRAT	BALLARAT	VIC
BRUK	BRUNSWICK	VIC
BSDN	BASSENDEAN	WA
BURD	BURWOOD	NSW
CAMP	CAMPSIE	NSW
CANN	CANNINGTON	WA
CARL	CARLINGFORD	NSW
CARR	CARRAMAR	NSW
CAST	CASTLE HILL	NSW
CAUL	CAULFIELD	VIC
CBRG	COBURG	VIC
CFSH	COFFS HARBOUR	NSW

ESA	Name	State
CHAT	CHATSWOOD	NSW
CHPL	CHAPEL HILL	OLD
CLAY	CLAYTON	VIC
CLVY	COROMANDEL VALLEY	SA
CMLL	CAMBERWELL	VIC
CNVL	CANNING VALE	WA
CONC	CONCORD	NSW
COOG	COOGEE	NSW
CPBA	CAPALABA	OLD
CRBY	CANTERBURY	VIC
CREM	CREMORNE	NSW
CRON	CRONULLA	NSW
CSEA	CHELSEA	VIC
CTAM	CHELTENHAM	VIC
CTOE	COTTESLOE	WA
CWOD	COLLINGWOOD	VIC
DAND	DANDENONG	VIC
DANN	DANDENONG NORTH	VIC
DBLV	DOUBLEVIEW	WA
DEEW	DEE WHY	NSW
DKIN	DEAKIN	ACT
DNCT	DONCASTER EAST	VIC
DONC	DONCASTER	VIC
DRUM	DRUMMOYNE	NSW
DRWN	DARWIN	NT
EAST	EAST	NSW
EDGE	EDGECLIFF	NSW
EDWN	EDWARDSTOWN	SA
ELSK	ELSTERNWICK	VIC
ELTM	ELTHAM	VIC
ENPK	EVERTON PARK	OLD
EPPI	EPPING	NSW
ERPK	EDENSOR PARK	NSW
EWOO	EASTWOOD	NSW
EZBH	ELIZABETH	SA
FHLS	FERNY HILLS	OLD
FIVE	FIVE DOCK	NSW
FMTL	FREMANTLE	WA
FREN	FRENCHS FOREST	NSW
FSRY	FOOTSCRAY	VIC
FTON	FLEMINGTON	VIC
GBRH	GREENSBOROUGH	VIC
GLEB	GLEBE	NSW
GLIS	GLEN IRIS	VIC
GLLG	GLENELG	SA
GPCS	GEPPS CROSS	SA
GRAN	GRANVILLE	NSW
GUGA	GLENUNGA	SA
HAMS	HAMERSLEY	WA
HARB	HARBORD	NSW
HDBG	HEIDELBERG	VIC

ESA	Name	State
HGTT	HIGHETT	VIC
HOME	HOME BUSH	NSW
HORN	HORNSBY	NSW
HPSD	HAMPSTEAD	SA
HUHL	HUNTERS HILL	NSW
HURS	HURSTVILLE	NSW
INGL	INGLEBURN	NSW
JKOT	JANDAKOT	WA
JREE	JAMBOREE HEIGHTS	OLD
KELL	KELLYVILLE	NSW
KENS	KENSINGTON	NSW
KEWE	KEW	VIC
KILL	KILLARA	NSW
KING	KINGSGROVE	NSW
KOGA	KOGARAH	NSW
KSLY	KINGSLEY	WA
KYNG	KOOYONG	VIC
LAKE	LAKEMBA	NSW
LANE	LANE COVE	NSW
LCHE	LUTWYCHE	OLD
LIDC	LIDCOMBE	NSW
LIND	LINDFIELD	NSW
LISM	LISMORE	NSW
LIVE	LIVERPOOL	NSW
LSDE	LONSDALE	SA
MADD	MADDINGTON	WA
MALV	MALVERN	VIC
MANL	MANLY	NSW
MARO	MAROUBRA	NSW
MASC	MASCOT	NSW
MATR	MATRAVILLE	NSW
MAYM	MAYLANDS	WA
MCHN	MITCHELTON	OLD
MDBY	MODBURY	SA
MDLE	MAIDA VALE	WA
MGAT	MOUNT GRAVATT	OLD
MHAW	MOUNT HAWTHORN	WA
MILL	MILLER	NSW
MIRA	MIRANDA	NSW
MITM	MITCHAM	VIC
MKAY	MACKAY	OLD
MLND	MORELAND	VIC
MLOC	MORDIALLOC	VIC
MLOO	MULLALOO	WA
MNNG	MANNING	WA
MOSM	MOSMAN	NSW
MRAC	MERRIMAC	OLD
MWSN	MAWSON	ACT
MYDE	MAROOCHYDORE	OLD
NALE	NORTH ADELAIDE	SA
NBRI	NORTHBRIDGE	NSW

ESA	Name	State
NCOE	NORTHCOTE	VIC
NDAH	NUNDAH	OLD
NERG	NERANG	OLD
NESS	NORTH ESSENDON	VIC
NEWT	NEWTOWN	NSW
NMEL	NORTH MELBOURNE	VIC
NMKT	NEWMARKET	OLD
NPAR	NORTH PARRAMATTA	NSW
NPRT	NEWPORT	VIC
NRWD	NORWOOD	SA
NRYD	NORTH RYDE	NSW
NSYD	NORTH SYDNEY	NSW
OAKL	OAKLEIGH	VIC
ORGF	ORANGE	NSW
PARR	PARRAMATTA	NSW
PDTN	PADDINGTON	OLD
PEAK	PEAKHURST	NSW
PEND	PENDLE HILL	NSW
PENN	PENNANT HILLS	NSW
PETE	PETERSHAM	NSW
PKEM	PORT KEMBLA	NSW
PMEL	PORT MELBOURNE	VIC
PNTH	PENRITH	NSW
PROT	PROSPECT	SA
PRTN	PRESTON	VIC
PTAD	PORT ADELAIDE	SA
PYMB	PYMBLE	NSW
QUAK	QUAKERS HILL	NSW
RAMS	RAMSGATE	NSW
RAND	RANDWICK	NSW
RBNA	ROBINA	OLD
RCMD	RICHMOND	VIC
REDF	REDFERN	NSW
RELA	REYNELLA	SA
REVE	REVESBY	NSW
ROCK	ROCKDALE	NSW
ROOT	ROOTY HILL	NSW
ROSE	ROSE BAY	NSW
RWOD	RINGWOOD	VIC
RYDA	RYDALMERE	NSW
RYDE	RYDE	NSW
SALA	SALISBURY	SA
SEFD	SEAFORD	SA
SEFT	SEFTON	NSW
SEMC	SEMAPHORE	SA
SEVE	SEVEN HILLS	NSW
SHAL	SHALVEY	NSW
SHPN	SHEPPARTON	VIC
SILV	SILVERWATER	NSW
SLAC	SLACKS CREEK	OLD
SMEL	SOUTH MELBOURNE	VIC

ESA	Name	State
SNDM	SANDRINGHAM	VIC
SOAK	SOUTH OAKLEIGH	VIC
SOPT	SOUTHPORT	OLD
SOTH	SOUTH BRISBANE	OLD
SPL	SPRINGVALE	VIC
SPRD	SPEARWOOD	WA
SPTH	SOUTH PERTH	WA
SRWD	SHERWOOD	OLD
SSBY	SALISBURY	OLD
SSTR	SOUTH STRATHFIELD	NSW
STKA	ST KILDA	VIC
STLE	ST LEONARDS	NSW
STMA	ST MARYS	NSW
STMF	ST MARYS	SA
STPE	ST PETERS	SA
SUBT	SUBIACO	WA
SURF	SURFERS PARADISE	OLD
SUTH	SUTHERLAND	NSW
SYBK	SUNNYBANK	OLD
TAMH	TAMWORTH	NSW
TGPA	TINGALPA	OLD
THGP	THE GAP	OLD
TMNE	TULLAMARINE	VIC
TOBF	TOOWOOMBA	OLD
TRAK	TOORAK	VIC
TUTT	TUART HILL	WA
TWOG	TOOWONG	OLD
TYHO	TALLY HO	VIC
UNDE	UNDERCLIFFE	NSW
UNLY	UNLEY	SA
VAUC	VAUCLUSE	NSW
VICP	VICTORIA PARK	WA
VLLY	VALLEY	OLD
WACL	WACOL	OLD
WAGA	WAGGA WAGGA	NSW
WAHR	WAHROONGA	NSW
WAVE	WAVERLEY	NSW
WDVL	WOODVILLE	SA
WESA	WEST ADELAIDE	SA
WETH	WETHERILL PARK	NSW
WHLL	WHEELERS HILL	VIC
WILL	WILLOUGHBY	NSW
WIRC	WINDSOR	VIC
WLGG	WOLLONGONG	NSW
WOBB	WOOLLOONGABBA	OLD
WOLF	WOLFE	NSW
WRNA	WANTIRNA	VIC
WTFD	WATERFORD	OLD
WYNM	WYNNUM	OLD
YRGA	YERONGA	OLD

ANNEXURE C

Maps showing ESAs in which Telstra considers there is currently at least one inter-exchange fibre provider competing with it

Figure 1: Melbourne

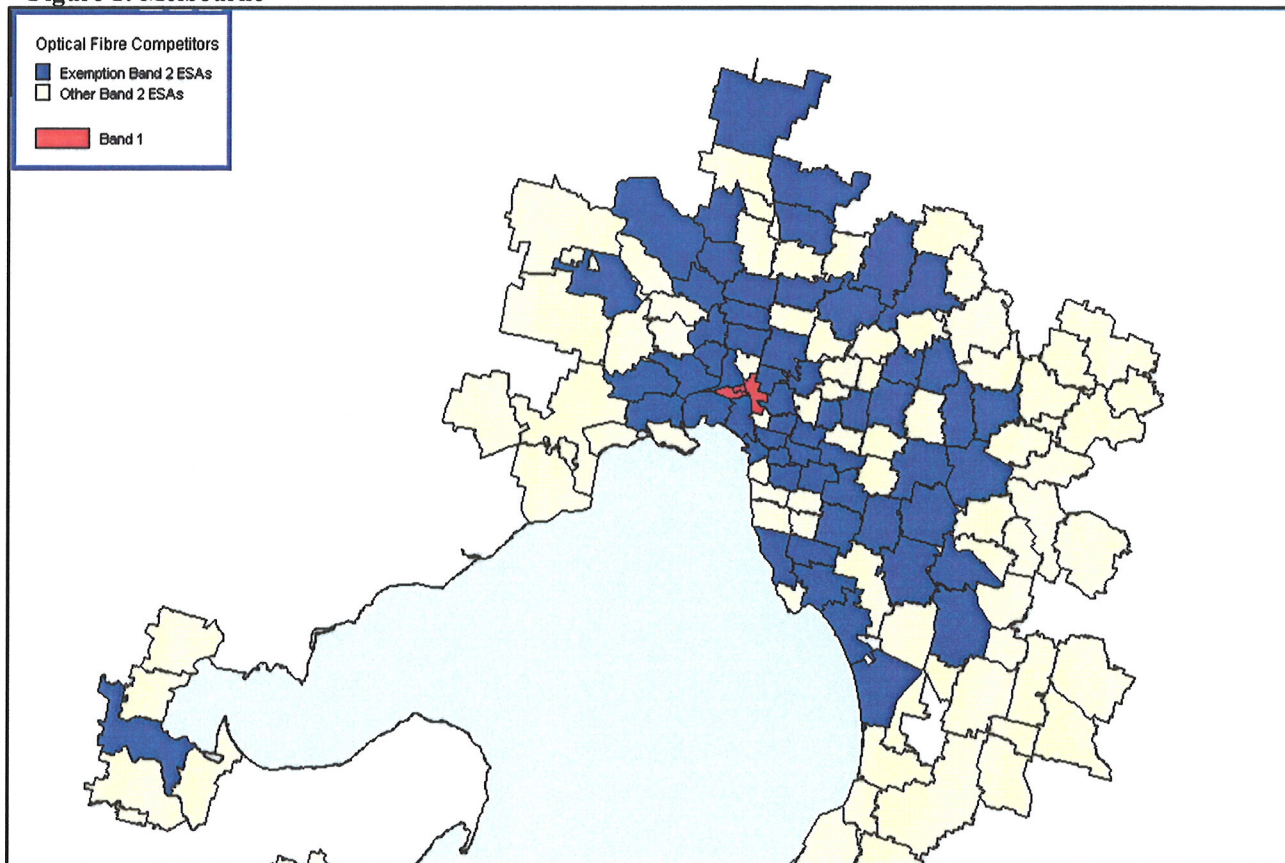


Figure 2: Sydney

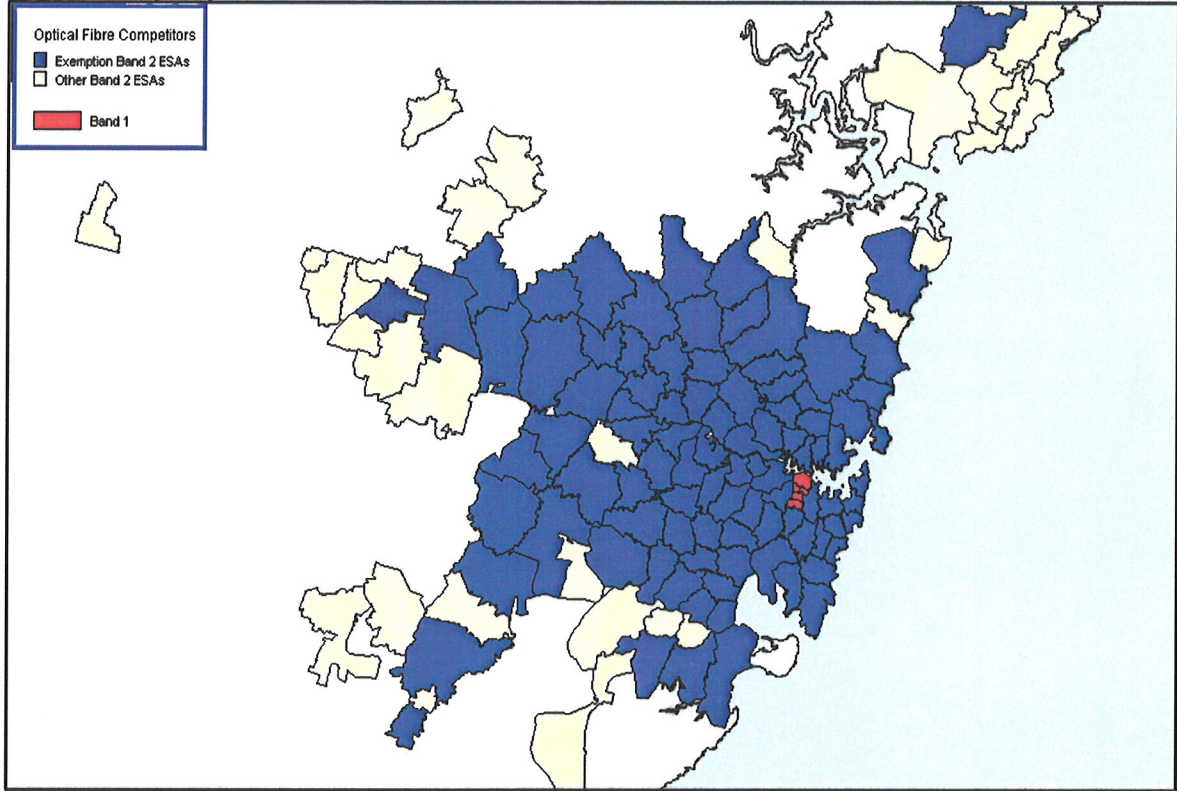


Figure 3: Brisbane

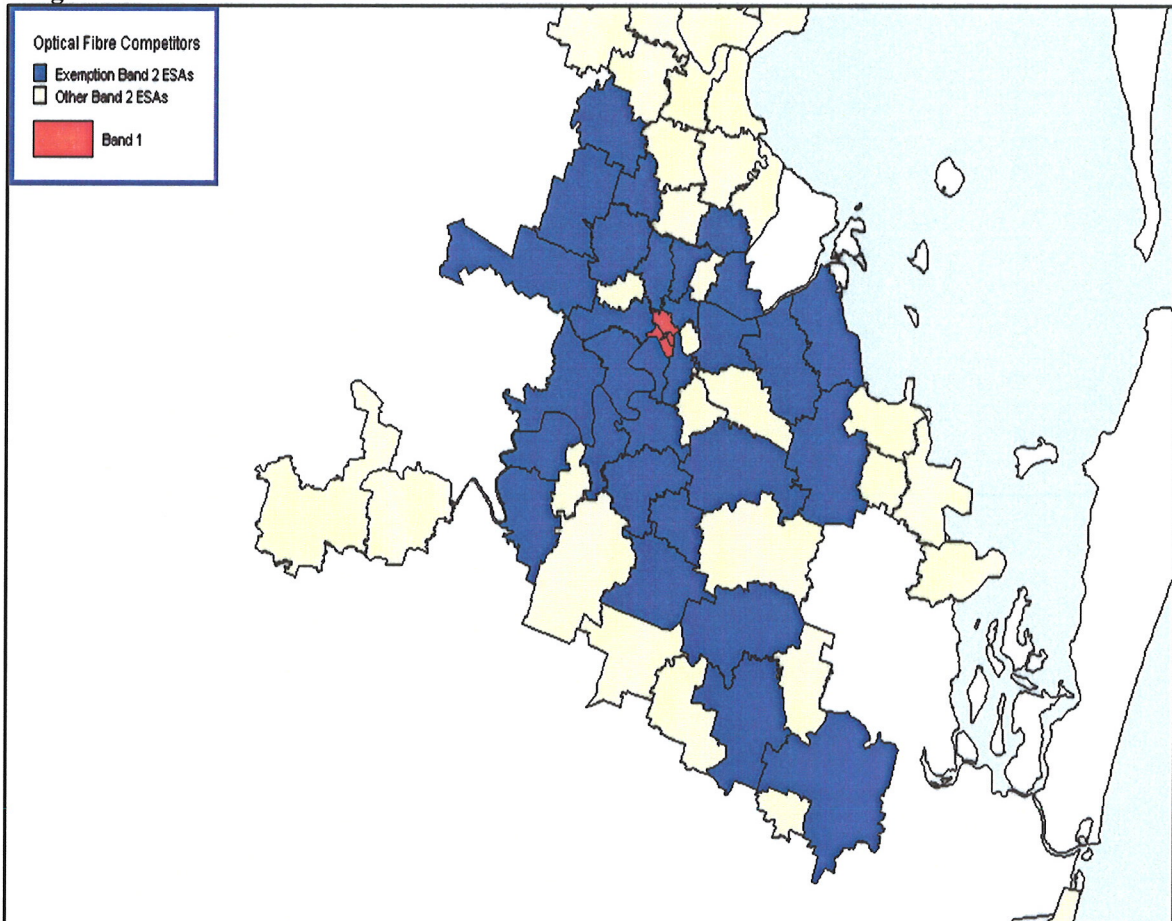


Figure 4: Adelaide

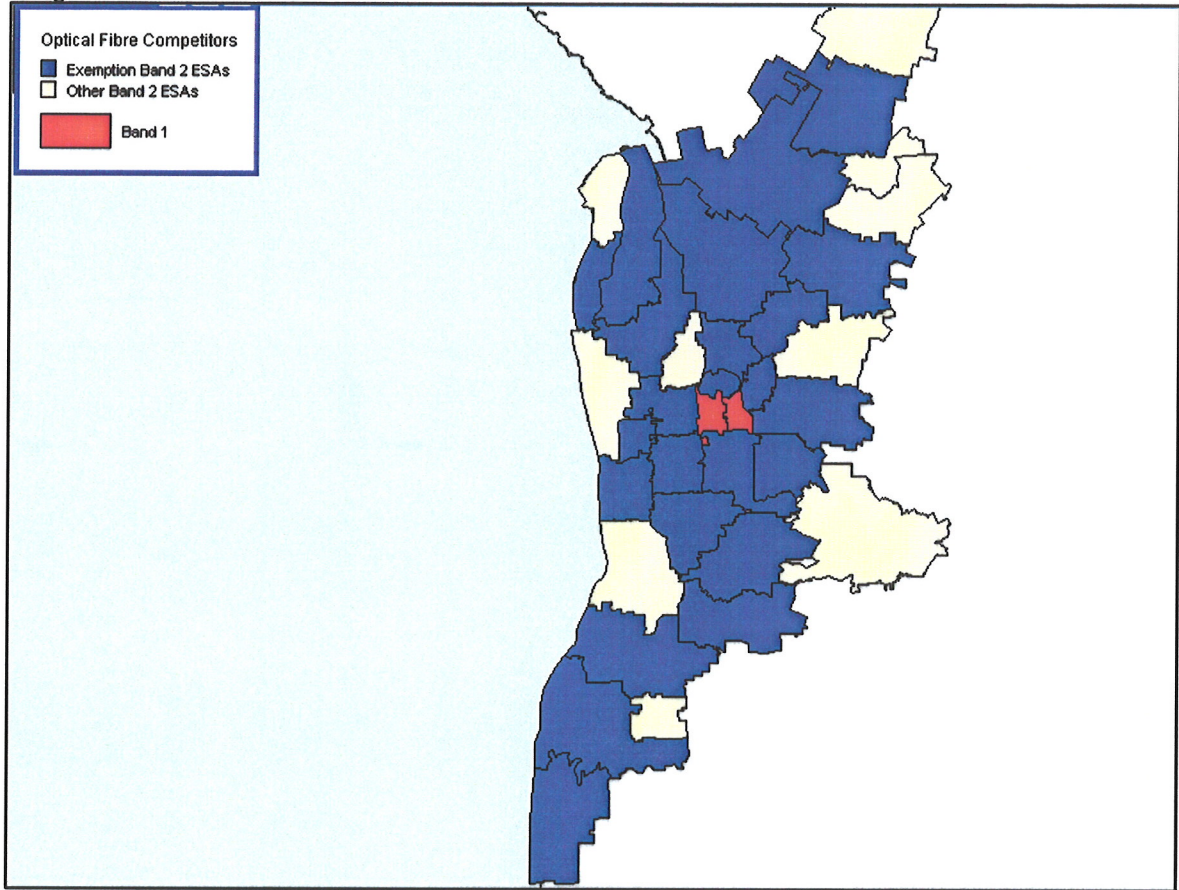
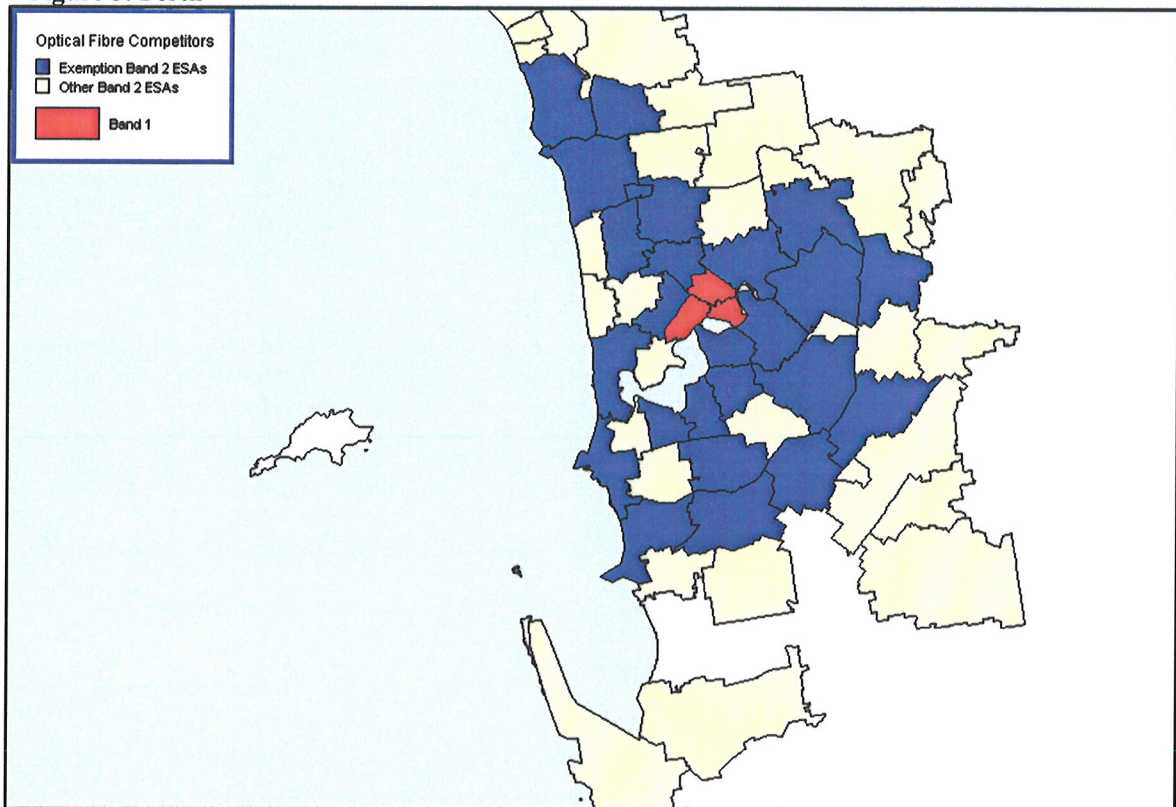


Figure 5: Perth



ANNEXURE D

ESAs subject of the 9 July 2007 Exemption Applications in which Telstra does not currently have evidence as to the existence of a competing transmission provider

ESA	Name	State
ABCH	AVOCA BEACH	NSW
ABON	ALBION	QLD
ALFN	ALFREDTON	VIC
ALXH	ALEXANDRA HILLS	QLD
APLY	ASPLEY	QLD
ARMD	ARMADALE	WA
AVAL	AVALON BEACH	NSW
BAYR	BAYSWATER	VIC
BBCH	BURNS BEACH	WA
BCHS	BEECHBORO	WA
BELG	BELGRAVE	VIC
BELM	BELMONT	VIC
BGON	BRIGHTON	VIC
BLBN	BLACKBURN	VIC
BLCN	BELCONNEN	ACT
BLJA	BALLAJURA	WA
BNDL	BUNDALL	QLD
BRIH	BRIGHTON	SA
BURL	BURLEIGH HEADS	QLD
CBTN	CAMPBELLTOWN	NSW
CHDE	CHERMSIDE	QLD
CHLS	CHARLESTOWN	NSW
CLVL	CLEVELAND	QLD
CORI	CORIO	VIC
CPHL	CAMP HILL	QLD
CPRO	COORPAROO	QLD
CRBN	CRAIGIEBURN	VIC
CRCF	CRACE	ACT
CRMS	CURRAMBINE	WA
CROH	CROYDON	VIC
CRSX	CAIRNS	QLD
CRYD	CROYDON	SA
CTON	CARLTON	VIC
CVIC	CIVIC	ACT

ESA	Name	State
CYTB	CITY BEACH	WA
DAEY	DAVEY	TAS
DRRA	DARRA	QLD
EMPS	EIGHT MILE PLAINS	QLD
ENDS	ENDEAVOUR HILLS	VIC
ENGA	ENGADINE	NSW
EPPG	EPPING	VIC
ESPK	ERSKINE PARK	NSW
FRFD	FORRESTFIELD	WA
FRTN	FRANKSTON	VIC
GEEM	GEELONG	VIC
GIRR	GIRRAWHEEN	WA
GNGE	GOLDEN GROVE	SA
GOSN	GOSNELLS	WA
GRMT	GREENMOUNT	WA
GSFD	GOSFORD	NSW
GULL	GULLIVER	QLD
HAMN	HAMILTON	NSW
HAWN	HAWTHORN	VIC
HILN	HILTON	WA
HNLY	HENLEY BEACH	SA
HOLS	HOLSWORTHY	NSW
HTLL	HARTWELL	VIC
IALA	INALA	QLD
IPSW	IPSWICH	QLD
JDLP	JOONDALUP	WA
JTSX	JANDAKOT SOUTH	WA
KALG	KARINGAL	VIC
KBAH	KAMBAH	ACT
KEDL	KEWDALE	WA
KELM	KELMSCOTT	WA
KGRO	KANGAROO FLAT	VIC
KLGR	KALLANGUR	QLD
LAVN	LAVINGTON	NSW
LDLE	LANDSDALE	WA
LESM	LESMURDIE	WA
LNHE	LOGANHOLME	QLD
LNYN	LANYON	ACT
LYNH	LYNDHURST	VIC
MAIT	MAITLAND	NSW
MAYF	MAYFIELD	NSW
MDLD	MIDLAND	WA

ESA	Name	State
MDNA	MEDINA	WA
MENA	MENAI	NSW
MILD	MILDURA	VIC
MINT	MINTO	NSW
MLBA	MELBA	ACT
MLEY	MORLEY	WA
MNDE	MINDARIE	WA
MNKA	MANUKA	ACT
MNSH	MONASH	ACT
MOLP	MOOLAP	VIC
MONA	MONA VALE	NSW
MTEA	MOUNT ELIZA	VIC
NAWN	NARRE WARREN	VIC
NDLN	NEDLANDS	WA
NGLG	NORTH GEELONG	VIC
NHRD	NORTH RICHMOND	NSW
NLTN	NEW LAMBTON	NSW
NOOS	NOOSA HEADS	QLD
NRBA	NARANGBA	QLD
NWFM	NEW FARM	QLD
ORMD	ORMOND	VIC
OSBN	OSBORNE	SA
PMYA	PALMYRA	WA
PRDS	PARADISE	SA
QINS	QUINNS ROCKS	WA
REDC	REDCLIFFE	QLD
RIVT	RIVERTON	WA
RKHM	ROCKINGHAM	WA
RSVR	RESERVOIR	VIC
SCBH	SCARBOROUGH	WA
SCLN	SCULLIN	ACT
SCOY	SCORESBY	VIC
SHLN	LAUNCESTON SOUTH	TAS
SMRN	SOUTH MORANG	VIC
SPNE	STRATHPINE	QLD
SPOL	SEBASTOPOL	VIC
STIC	STIRLING	SA
STJN	ST JOHN	TAS
SYRA	SOUTH YARRA	VIC
THTN	THOMASTOWN	VIC
TNBY	THORNBURY	VIC
TNIT	TARNEIT	VIC

ESA	Name	State
TNSF	TOWNSVILLE	QLD
WANO	WANNEROO	WA
WEND	WENDOUREE	VIC
WEPN	WELLINGTON POINT	QLD
WHJS	WHYALLA JENKINS	SA
WMBY	WEMBLEY	WA
WRLA	WARILLA	NSW
WSOR	WINDSOR	NSW
ZMRE	ZILLMERE	QLD

ANNEXURE E

Statement of [c-i-c] 21 February 2008