



**TELSTRA CORPORATION LIMITED**

**Public Version of Telstra's Response to ACCC Discussion Paper  
on Telstra's exemption application relating to SingTel Optus'  
HFC network submitted on 25 March 2008**

26 March 2008

**PUBLIC VERSION**

## Introduction

This exemption application requires the Commission to forensically examine why SingTel Optus, uniquely amongst cable operators around the world, “chooses to extensively dual source between cable and regulated access services in streets down which its existing HFC network runs.”

In its discussion paper dated January 2008 (**Discussion Paper**), the Commission has rightly pressed for answers to important questions that lie at the heart of Telstra’s exemption application, including the precise extent of SingTel Optus’ use of Telstra’s network, and the basis upon which it elects to do this rather than use its own end-to-end cable infrastructure. Only SingTel Optus can answer these questions. If SingTel Optus fails to provide candid, verified answers, the Commission should use its formal legal powers to compel the information to be provided.

SingTel Optus’ responses to the Commission’s questions should help answer “when” SingTel Optus dual sources, but not necessarily “why” it does so.

At its simplest, though, it is clear that SingTel Optus underinvests in its installed infrastructure because it can. SingTel Optus seems so reluctant to spend capital on its HFC network that across much of the network’s footprint it will use regulated access to avoid even the very limited investment required to connect a customer (a drop and CPE) - despite the long term benefits, recognised by every other cable operator, of relying on its own network infrastructure.

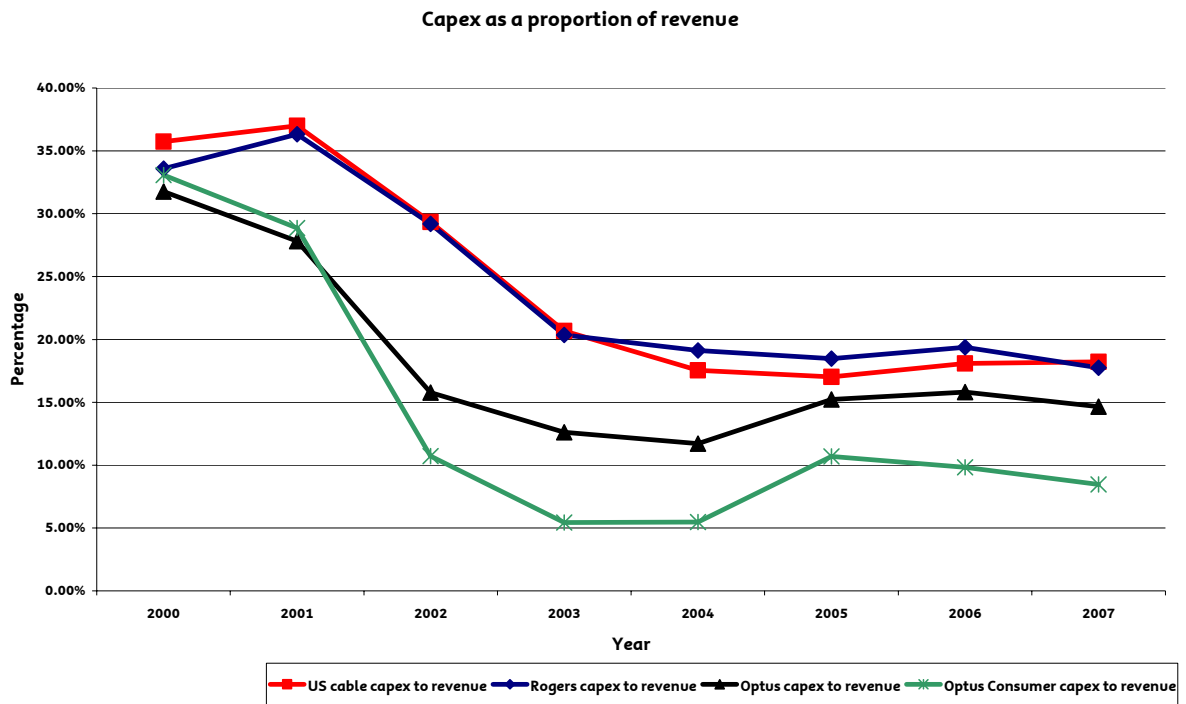
The extent of SingTel Optus’ under-investment is striking compared to overseas cable operators. Figure 1 shows the proportion of capital expenditure to revenue for 4 cases:

- the US cable industry derived by taking annual revenue from residential subscribers for calendar years divided by the expenditure on cable networks (but not back office systems);<sup>1</sup>
- Rogers, a Canadian based communications business which has a mixture of mobile, cable and media businesses and which competes with an incumbent telecommunications company;<sup>2</sup>
- SingTel Optus derived by taking the annualised figure at 31 March in the year after the year set out in the graph using financial reports for 2002 to 3Q 2008 downloaded from the SingTel website ([www.singtel.com.sg](http://www.singtel.com.sg)). The 2007 figure is taken from the report to December 2007; and
- the revenue and capex for SingTel Optus’ Consumer and Multimedia Division (subsequently the Consumer and SMB Division) which is responsible for an HFC investment.

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<sup>1</sup> This data is sourced from SNL Kagan and is available at the National Cable and Telecommunications Association ([www.ncta.com](http://www.ncta.com)).

<sup>2</sup> The data set out in the graph were taken from annual reports on the Rogers website (<http://phx.corporate-ir.net/phoenix.zhtml?c=80028&p=irol-reportsOther>).



**Figure 1 - Relative Capex Expenditure of Firms**

The gap is probably larger than appears in the above graph because SingTel Optus' recent financial reports indicate that the capex in the SingTel Optus Consumer and SMB division includes investment in its ULLS infrastructure. SingTel Optus is clearly allowing its HFC network to atrophy.

SingTel Optus' Fusion and other cable broadband bundling offers apply across ULLS and cable connections with little or no differences: the telephony and broadband pricing is the same, the broadband services have almost the same speeds<sup>3</sup> and pay TV is conspicuously excluded.

This strategy preserves SingTel Optus' dual sourcing choices: on the demand side, customers do not appear to be given a choice between delivery technologies (or if they are, it is not a meaningful choice for them) while on the supply side, SingTel Optus can readily swap between ULLS and cable as it wants. SingTel Optus' decision to homogenise its products across ULLS and copper has two adverse outcomes for infrastructure-based competition.

First, SingTel Optus is not realising the full potential of its HFC network to compete in triple play services, which have been identified as a key driver of cable network upgrades and NGNs overseas. HFC gives SingTel Optus the advantage of multi-channel video capability over its ULLS-based competitors, and it has access to "best-of" programming and branding with which to sell pay TV services. However, with the easy availability of regulated wholesale services, double play becomes the lowest common denominator across SingTel Optus' supply inputs in its cabled areas. The third service in a triple-play offering – pay TV – offered as a standalone product is left to shoulder the entire capital burden of installing cable.

<sup>3</sup> The ULLS-based services had faster downchannel speeds until SingTel Optus announced an upgrade to its cable network. The downchannel speed for both ULLS and cable based Optus broadband services is advertised as 20 Mbps. DSL services are advertised as having a higher upchannel speed of 820 kbps while cable has an upchannel speed of 512 kbps.

As a result, it will only make sense for SingTel Optus to incur the incremental costs involved in using or extending the HFC when the incremental revenues from pay TV are sufficient to defray those incremental costs. This reduces the range of cases in which it is commercially attractive for SingTel Optus to connect customers with cable rather than ULLS. In contrast, HFC operators in other countries will base the business case for using or extending their network on the full suite of services the HFC can supply, and hence will be far more aggressive both in marketing and in upgrading their network.

Second, the effect, if not the intention, of SingTel Optus' under-investment in higher broadband speeds on its HFC network compared to overseas cable operators may be to preserve its supply side dual sourcing option. If SingTel Optus had not held back on upgrades beyond DOCSIS 1.1, there would be a more obvious speed "gap" between its ADSL services and cable: for example, Virgin is offering 50 Mbps on its HFC network in the UK compared with BT's 8-12 Mbps on copper. If SingTel Optus did upgrade and differentiate, customers would be more likely to opt for SingTel Optus cable over SingTel Optus ADSL (all other things equal). But this would require more short term capex expenditure by SingTel Optus on HFC to connect customers, which it seems reluctant to make. As a result, intermodal competition is muted because the player who might be most expected to exploit it – the owner of alternative infrastructure – has chosen to homogenise its product offerings across both cable and copper platforms. Indeed, Telstra offers more differentiation between cable and copper broadband platforms than does SingTel Optus.

SingTel Optus claims that only two thirds of premises passed by its HFC cable are considered "serviceable" despite 90-100% serviceability rates for comparable cable operators around the world. Telstra contends that, apart from the dual sourcing option introduced via the availability of regulated ULLS in the HFC footprint, there is nothing inherent in the make up of metropolitan Australia that suggests serviceability levels should be at world record lows for a cable operator. Indeed, Telstra treats as unserviceable only about 7% of homes passed by its own HFC network.

At the same time that SingTel Optus is seeking an ULLS solution consistent with its dual sourcing model, overseas regulators are promoting the connection of more homes passed to competing infrastructure by requiring MDU building owners to unbundle in-building wiring. This approach is much more consistent with promoting infrastructure-based competition than solving in-building access problems between entrants and building owners by requiring the incumbent to unbundle access to MDUs right back at the local exchange.

Professor Martin Cave - the "father" of the ladder of investment theory that ostensibly underpins telecommunications regulation theory in much of the world, including Australia - has expressed the view that SingTel Optus' heavy use of regulated access in cabled areas is not consistent with the ladder. However, even if it is not accepted that something has gone wrong with the application of the ladder theory in Australia, the time has well and truly come for SingTel Optus to step up and off the ladder in areas where it has HFC cable.

The main justification commonly given for the ladder of investment is that regulated access provides the access seeker with the opportunity to build up a significant customer base which can then be shifted to its own infrastructure, thereby reducing the barriers to entry. Surely SingTel Optus has reached this point, with over 500,000 HFC network connections – a penetration rate of 24% or more of all homes passed and 38% of the homes it chooses to service.

The Commission also has said that it is prepared to roll back access regulation in sub-national markets to recognise the emergence of more extensive competition in some areas. Surely the SingTel Optus HFC cable represents the best example of where such an approach should be applied, because there is already alternative network on the ground.

This exemption application seeks a limited, targeted remedy. It only removes the wholesale “rungs” on the ladder of investment in circumstances where the competing firm has **already** built to the top, and even then only removes them for that firm. It asks for regulatory relief only within 75 metres of the SingTel Optus HFC, thus avoiding the ‘hard cases’ such as distant battleaxe blocks, even though the New Zealand Commerce Commission has found 100 metres to be reasonable for similar purposes. It asks only that SingTel Optus use its own network where it already exists (or alternatively seek commercial access) and allows 6 – 12 months for it to get ready.

The Commission has said that the best outcome for the LTIE is facilities-based competition and that its access policies should be directed to achieving that outcome. The SingTel Optus HFC network is the most substantial example we have of facilities based fixed network competition – the choice between two “pipes” for over 2.2 million households.

However, in a recent speech, the Commission’s Chairman said that increased competition in broadband services “owed a significant debt” to ULLS regulation, but he failed to make any mention at all of the SingTel Optus’ HFC network passing about one third of homes. This is an indictment of SingTel Optus’ underinvestment in the HFC network. It also suggests that access policy is being set as if Australia had no alternative end to end infrastructure, and no aspiration to a first-best model of competition between end to end networks.

This is precisely the opposite of what is required to set strong competitive foundations for the future arrival of NGNs.

As Professor Cave points out, robust infrastructure competition in the pre-NGN environment will lay the best possible foundations for a competitive NGN environment. Concerns are often expressed about the risk that the NGN will lead to re-monopolisation. While Telstra believes these concerns are misplaced, the best policy solution is to trigger an investment race between existing infrastructures.

While an investment race may not be possible on a nationwide basis in countries like Australia, due to its sheer geographical expanse and the strong historic reluctance of Telstra’s competitors to invest outside the major metropolitan centres, the SingTel Optus network still represents a substantial portion of the market, as it covers three of the heaviest populated Australian capital cities. Access and NGN policy should not be set in a vacuum as if alternative end-to-end infrastructure does not exist.

Regulatory decisions should strive to stimulate efficient investment in the use of alternative infrastructure to the fullest extent possible, rather than leave in place old world regulatory settings that merely entrench the moribund state of alternative infrastructure use and investment through regulatory generated opportunism and competitive distortions in metropolitan Australia. Removing the constraining shackles of such regulatory settings is urgently needed to ensure Australia’s path to NGN for services for consumers is not impeded and keeps up with international best practice.

## A Summary of key questions for interested parties:<sup>4</sup>

A list of terms used in this response and their meanings forms Attachment A to this response.

### A.1 To what extent does Optus currently use the Telstra fixed line network within the serviceable areas of the Optus HFC network footprint (ie. those 64 percent of homes passed and serviced by Optus' HFC network)?

1 Telstra's response to Question A.2 answers both Question A.1 and Question A.2.

### A.2 To what extent does Optus currently use the Telstra fixed line network within the non-serviceable areas of the Optus HFC network footprint (ie. those 36 per cent of homes passed but not serviced by Optus' HFC network)?

2 Two types of information must be juxtaposed in order to answer Questions A.1 and A.2:

- (a) location of SingTel Optus' network. SingTel Optus is the only party that can authoritatively and comprehensively answer this question. The Commission has not specifically asked for this information in its Discussion Paper, but we assume that the Commission will utilise the information which SingTel Optus should have already provided under the RKR; and
- (b) the locations in which SingTel Optus uses the Telstra declared services that are the subject of this exemption application.<sup>5</sup> Again, SingTel Optus can provide this information. Alternatively, Telstra also could provide this information but is constrained by confidentiality obligations. Telstra is able to provide this information if the Commission directs Telstra to do so.

3 Since Telstra filed its exemption application in respect of the SingTel Optus network, the extent of overlap between the SingTel Optus HFC network and the deployment of DSLAMs by SingTel Optus and other access seekers has continued to increase:

- (a) in Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network (**Main Submission**), Telstra estimated that in NSW, Victoria and Queensland almost 80% of the ESAs through which SingTel Optus has deployed its HFC network have SingTel Optus DSLAMs and only 35% of the ESAs in which SingTel Optus has deployed DSLAMs do not have the HFC network;<sup>6</sup> and
- (b) in its Main Submission, Telstra identified that there were only 6 ESAs where SingTel Optus had deployed HFC network and where the only DSLAM operator was Optus.<sup>7</sup> In the period since the exemption request was submitted to 25 March 2008, this number has halved to 3 as competitive DSLAMs have been deployed.<sup>8</sup>

<sup>4</sup> For ease of reference we have numbered the Commission's questions.

<sup>5</sup> WLR, LCS, PSTN OA, LSS and ULLS (collectively the **CAN Declared Services**)

<sup>6</sup> Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007, Executive Summary, at page 2.

<sup>7</sup> Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007, Executive Summary, at para 233.

<sup>8</sup> The Darra, Dural and Waterford ESAs now have an additional DSLAM provider other than Optus.

- 4 The Commission has rightly asked SingTel Optus specific questions about its provisioning approach both in relation to premises treated as serviceable (the 64%) and non-serviceable (the 36%) by SingTel Optus.<sup>9</sup> Previous SingTel Optus claims about preferring to connect customers to its HFC network simply do not seem credible on the numbers, as discussed in Telstra's response to Question A.3. Not only does the availability of regulated access allow SingTel Optus to classify five times as many homes passed as unserviceable as that of the Telstra's HFC network and six times that of overseas cable operators, but the deployment of DSLAMs in ESAs which are predominantly characterised by "garden variety" single dwelling units (SDUs) suggests that SingTel Optus may be using regulated access even for homes which otherwise it would treat as serviceable (that is, the 64%). Therefore, any general responses which SingTel Optus makes about its provisioning policies (for example, in response to Question A.3) must be verified by direct evidence about what is happening on the ground.
- 5 Telstra believes that it would be feasible to select some test geographic areas within the SingTel Optus HFC area (eg randomly or using criteria to get a broad cross section of areas) and overlay the information about SingTel Optus' use of CAN Declared Services (either from SingTel Optus or Telstra) on the SingTel Optus HFC footprint. This should be a relatively straightforward exercise as the data can be configured to use the same geographic coding. Telstra would be prepared to co-operate in such a study (subject to resolving the use of confidential wholesale information).

### A.3 What technical and economic factors guide whether Optus classifies an end-user premise as unserviceable?

- 6 On 16 February 2006, the Commission responded to a Senate Economics Legislation Committee written question (AT 47) by referring to the SingTel Optus position which the Commission had previously accepted:

*Optus has informed the ACCC that it does not use ULLS in preference to its own HFC network to serve customers. Optus has advised it has internal business rules that require customers to be connected to the HFC network if this is available to serve a customer.*

*There is, however, some overlap between Optus' HFC and ULLS footprints. This is because not all customers in the HFC footprint are serviceable. Optus' HFC network goes past about 2.2 million customers. However, only 1.4 million of these are serviceable from Optus' HFC network. There are 0.8 million customers within this footprint that are in multi-dwelling units or single dwelling units that are distant from the cable, which, under its internal business rules, Optus will serve via ULLS, rather than its HFC network.*

- 7 There are a number of aspects of SingTel Optus' statement which are not credible on the numbers. First, the base line figure of 2.2 million homes passed has been unchanged since the late 1990s. This is surprising as the number of homes built within the HFC network coverage area would be anticipated to rise in line with the rise in the total number of dwellings in each of Sydney, Melbourne and Brisbane. For example, the Australian Bureau of Statistics reports that the number of dwellings in Melbourne rose by 9.4% between the census collections in 2001 and 2006 (Cat. No. 2068.0 - 2006 Census Tables). If only 1.4 million are serviceable, then this suggests that the percentage of homes SingTel Optus treats as unserviceable is more like 40% of homes passed, based on the increase in that five-year period alone.

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<sup>9</sup> As discussed in the response to Question A.3, the 36% figure may understate the percentage of homes passed that SingTel Optus treats as unserviceable because the density of housing in the SingTel Optus deployment area has continued to increase since deployment: see response to Question A.3.

- 8 Second, it is not credible for SingTel Optus to argue that the 36+% of homes it treats as unserviceable are principally comprised of multiple dwelling units (**MDUs**) and SDUs which are technically difficult to serve. As Telstra set out in its submission, the experience from the Telstra HFC is that the proportion of unserviceable premises is close to 7%.<sup>10</sup> It is highly unlikely that MDUs make up the balance of the 36% (or more) of homes SingTel Optus treats as unserviceable. While some areas within the SingTel Optus HFC deployment area undoubtedly have a significant proportion of MDUs, many ESAs are typical Australian suburbs with rows of easy to access homes. SingTel Optus' unserviceable pool would seem to include a large number of "garden variety" SDUs.
- 9 In any event, SingTel Optus regards the decision not to serve MDUs as a "business rule" based on an economic, rather than technical, analysis. Telstra believes that SingTel Optus declines to install cable subscribers even in MDUs where SingTel Optus already has backbone cable.
- 10 Third, SingTel Optus has deployed DSLAMs in suburban ESAs which, in Telstra's experience, are predominated by easy-to-serve SDUs and which do not have many MDUs. In Telstra's view, this suggests that SingTel Optus also uses ULLS to connect premises within the 64% of homes it regards as serviceable.
- 11 Lastly, while it is useful to examine how SingTel Optus categorises premises as serviceable or unserviceable, it is also important to bear in mind that premises in each pool are not located in separate geographic areas and cannot be characterised on a street by street basis. The same street would appear to have SDUs which are treated as serviceable and unserviceable by SingTel Optus. Most of the MDUs in the SingTel Optus HFC areas are not large tower blocks, but 2, 3 or 4 storey blocks mixed in with SDUs in a street.
- 12 Telstra has provided information which is relevant to this question in Sections D and E of the Main Submission.<sup>11</sup>

#### **A.4 What are the economic, technical and regulatory barriers to make the unserviceable homes within Optus' HFC network serviceable?**

- 13 There are no substantial technical barriers which prevent homes which are currently characterised by SingTel Optus as "unserviceable" within MDUs from being made serviceable. The expert report by Michael G. Harris<sup>12</sup> (**Harris Report**) submitted by Telstra at the time of its application for exemption demonstrates that many of the homes which SingTel Optus considers unserviceable simply because they are in MDUs should be considered serviceable. Overseas, entrants building local networks regard MDUs as "sweet spots". As set out in Telstra's Main Submission, overbuilders ("third-in networks") have successfully targeted MDUs in the US which have been previously wired by the incumbent telco and the incumbent cable operator. To the extent that obtaining consent from MDU building owners or using in-building facilities owned by them is a barrier to entry, overseas regulators have used more appropriate, targeted measures requiring building owners to provide access. Requiring the incumbent to solve access issues between entrants and MDU building owners by unbundling its facilities back at the exchange is aimed at the wrong target and is, in any event, counterproductive since it undermines incentives to make any effort to connect MDUs in the first place. Hence, SingTel Optus' apparent blanket policy never to connect any MDUs.

<sup>10</sup> Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007 at paragraph 60.

<sup>11</sup> For clarity, Telstra notes that the estimates in paragraph 120(c) of the Main Submission relate to residential and business premises, while those in Table 6 of the Main Submission relate only to residential premises.

<sup>12</sup> Annexure 2 to Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007.



- 14 Telstra's proposal of a "75 metre rule" for the exemption is based on the approach that Telstra itself takes in classifying a connection as a "standard installation". If the cable distance from the main distribution cable to the most distant outlet is greater than 75 metres, then an amplifier is required and Telstra may charge the customer for a non-standard installation. Telstra notes that these amplifiers typically have a retail price of the order of \$120. While Telstra believes that SingTel Optus could recover the cost of an amplifier if customers were connected beyond 75 metres, we have taken a conservative approach by limiting the exemption to 75 metres. The use of the Telstra HFC 75 metre policy is also conservative in respect of SingTel Optus as its provision of telephony services over cable (or alternatively, its avoidance of ULLS charges) provides an additional revenue stream compared to Telstra's service revenue from its HFC network with which to recoup connection costs.
- 15 There will be some premises which are truly unserviceable as a result of the problems which arise from running a drop cable to the home. Examples of these are premises which have very long driveways (that is, longer than 75 metres) or some "battleaxe blocks" where the far home may not be serviceable by an aerial drop cable because the closer home is in the way. Telstra's experience is that the proportion of unserviceable homes for either of these reasons is a very small percentage (7%)<sup>13</sup> of homes passed by Telstra's HFC network. However, as noted in Telstra's Main Submission, a large number of premises within SingTel Optus' HFC cable footprint will already have a drop cable from the aerial to the premises.<sup>14</sup>
- 16 There are planning regulations which limit the extension of an aerial cable system beyond its current deployment. Broadly, the main supply cable requires development approval for deployment. It is in the power of the Minister for Broadband Communications and the Digital Economy to determine that cables with a diameter of less than 13 mm are "Low Impact Facilities". This determination has not occurred. But, as this application only relates to existing HFC deployed by SingTel Optus, this is not a relevant barrier.
- 17 Local authorities in all areas where aerial cable is deployed by either SingTel Optus or Telstra permit customer drops to be installed without development approval provided that the installation meets relevant Communications Alliance ACIF Codes. For example, in NSW the *State Environmental Planning Policy (Infrastructure) 2007 (SEPP)* provides that a development is an "exempt development" if it is:
- a subscriber connection that is co-located with an underground or above ground electricity supply connection and is consistent with the ACIF Code (SEPP section 116(a)).*
- 18 Telstra has provided information which is relevant to this question in Sections D and E of the Main Submission.

**A.5 What types of investments would Optus need to undertake to make the unserviceable homes within its HFC network serviceable? What are the costs associated with these investments?**

- 19 Section 7 of the Harris Report clearly sets out the costs associated with delivery of HFC services to MDUs. The material provided in the Harris Report was used to produce the

<sup>13</sup> Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007 at paragraph 60.

<sup>14</sup> Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007 at paragraph 58.

simple model of MDU costs which formed Attachment 1 to Telstra's Main Submission.<sup>15</sup> This modelling shows that SingTel Optus could expect a payback of its investment in connecting MDUs in 12 to 18 months.

- 20 The incremental cost of network infrastructure other than the cable drop and customer premises equipment is negligible. In order to replace a ULLS service, SingTel Optus would need to build a drop cable from the HFC network to the premises and provide customer premises equipment. On a wholesale basis, cable modems cost in the range \$US40 to \$US50 which is slightly higher than the lowest cost ADSL modems. In addition, the cost of installing the drop cable and face plate is of the order of \$150. That is, the additional cost for SingTel Optus will be a capital expense of the order of \$200.<sup>16</sup>
- 21 If SingTel Optus pays Telstra \$14.50 per month for ULLS, then the pay back time for the capital expenditure associated with the drop and customer premises equipment will be less than 14 months even on the assumption that SingTel Optus provided and bore the cost of the customer ADSL modem. Current SingTel Optus Fusion bundles have a 24 month contract term.
- 22 In any event, the costs SingTel Optus would incur, as limited as they are, cannot be viewed in isolation from the benefits of enhanced facilities based competition. Nor is climbing the ladder of investment a "frictionless" exercise. That is, the ladder theory does not hold that an access seeker is only required to move to the next rung of the ladder when the access seeker faces no greater costs than continuing to squat on a rung below. As the access seeker climbs higher on the ladder, and network moves closer to the customer premises, the investment costs faced by the access seeker, and potentially the disruption to the customer, inevitably increase and some short run costs are incurred in migrating to the access seeker's own network platform.
- 23 For example, compare moving from WLR/LCS to ULLS and then moving on from ULLS to a direct connection to the entrant's network: in the former case, no new lead-in has to be installed because the access provider's physical network still is being used and the customer may be able to continue to use his or her existing PSTN handset, whereas in the latter case, the entrant has to install the lead-in and the customer may have to acquire a new handset because the entrant is likely to offer telephony by VoB means. However, these short run costs are outweighed by the long term benefits of facilities-based competition. After all, the ladder is there to be climbed.

## B Market definition

### B.1 What are the relevant markets that would be affected by the granting of the exemption?

- 24 Telstra is concerned that the Commission's questions on market definition suggest too formulaic an approach which misses the very specific, limited proposition raised by this exemption application: withdrawal of access only from a single entrant which already has its own end to end network throughout the exemption area.
- 25 It is well accepted that a purposive or instrumental approach should be taken to market definition:

<sup>15</sup> Attachment 1 to Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007.

<sup>16</sup> Although, depending on the then current accounting policies, SingTel Optus could choose to classify some or all of this as operating expense rather than capital expense.

*The market is defined because the definition assists in providing an answer to the question before the authority of the extent and nature of competition. Thus, in defining the market one should begin with the problem at hand and ask: what definition of market will best assist in analysing the processes of competition relevant to this case?*<sup>17</sup>

*[market definition is] a tool to facilitate a proper orientation for the analysis of market power and competitive processes – and should be taken only a sufficient distance to achieve the legal decision. The elaborateness of the exercise should be tailored to the conduct at issue and the statutory terms governing the breach.*<sup>18</sup>

- 26 The Commission itself has said many times that Part XIC does not require the Commission to precisely define the scope of relevant markets:

*In identifying relevant markets, Part XIC of the TPA does not require the ACCC to take a definitive or determinative stance on market definition...Furthermore, over time, declaration itself might affect the dimensions of these markets, particularly in relation to the functional dimensions. Accordingly, market analysis under Part XIC should be seen in the context of providing an analytical framework to examine how declaration would promote competition rather than in the context of developing ‘all purpose’ market definitions.*<sup>19</sup>

- 27 The “problem at hand” in this exemption application is unique, even compared to the other exemption applications made by Telstra:

- (a) the exemption zone boundaries will not determine whether SingTel Optus will be able to participate in the relevant markets:
- (i) currently, both HFC and ULLS inputs are used by SingTel Optus to compete at both wholesale and retail levels. For example, Fusion and other telephony/internet bundles appear to be offered across both technologies, with SingTel Optus itself apparently deciding which one to use (see response to Question B.5);
  - (ii) under the exemption, within the exemption zone SingTel Optus would lose the option to use regulated ULLS. It would retain all other options – HFC, commercially negotiated ULLS, or 3G/HSPA; and
  - (iii) outside the exemption zone, SingTel Optus could continue using regulated ULLS. Thus, if a geographic market straddles an exemption boundary, SingTel Optus’ ability to compete across the whole of that geographic market is unaffected;
- (b) granting the exemption will not affect the ability of other ULLS-based competitors to enter and compete in downstream markets. They will be able to acquire ULLS (and other declared services) at regulated prices inside and outside the exemption zone. Whether the geographic market coincides with the exemption zone boundaries is not relevant to their ability to compete in the downstream markets; and

<sup>17</sup> Norman and Williams, *The Analysis of Market and Competition Issues under the Trade Practices Act: Towards the Resolution of Some Hitherto Unresolved Issues* (1983) 11 *Australian Business Law Review*, 396, at 400.

<sup>18</sup> Maureen Brunt, *Market Definition in Australian and New Zealand Trade Practices Litigation*, 18 *Australian Business Law Review*, p86 at p126-7.

<sup>19</sup> ACCC, *Local Call Services Review Final Decision*, July 2006, p29. Also cited in paragraph 195 of Schedule A of Telstra’s Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007. See also ACCC, *Draft Report on declaring DDAS and ISDN*, March 2008, at p10.

(c) the regulation which Telstra faces in the supply of ULLS and other regulated access services will be the same inside and outside the exemption area, apart from the obligation to supply SingTel Optus. If a geographic market straddles an exemption zone, Telstra's conduct across the whole market will be directly or indirectly regulated.

28 Hence, the very particular, unique nature of the question raised by this exemption can be answered with a much less elaborate market definition exercise even than used in the other exemption applications before the Commission.

### *Geographic Markets*

29 Telstra considers that, applying Maureen Blunt's test, the Commission goes a "sufficient distance to achieve the legal decision" if it concludes that there are likely to be localised geographic retail and wholesale markets downstream from the exemption zones in each of Brisbane, Sydney and Melbourne and that the exemption zones are wholly comprised within those localised geographic markets. The Commission need not determine precisely how the retail and wholesale market boundaries align with the exemption zone boundaries.<sup>20</sup>

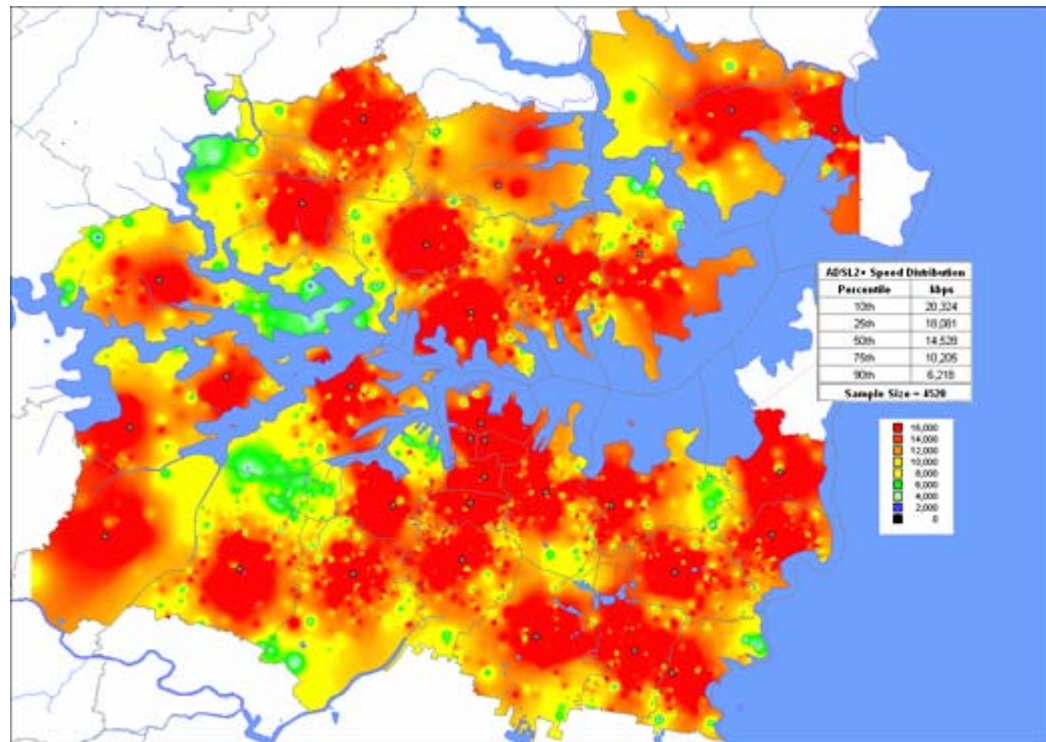
30 If the Commission concludes that the exemption promotes competition within the exemption zones, and on a more "elaborate analysis", it turned out that the localised geographic markets were co-extensive with or smaller than the exemption zones, competition in those downstream markets necessarily will be promoted if it is promoted in the exemption zone. Conversely, if the downstream geographic markets turn out to be bigger than the exemption zones, competition will still be promoted in those markets because that part of the market will be more competitive and, as access regulation is unchanged by this exemption application outside the exemption zones, competition should be as strong in the balance of the market. In fact, it is likely that there will be pro-competitive "spill over" effects in that part of the geographic market falling outside the exemption zone. Competitors may need to "lift their game" as consumers within the same geographic market become aware of the cheaper or better offerings available to their neighbours. Also, ULLS-based competitors responding to higher speeds on the SingTel Optus HFC network partly covering an ESA will deploy their higher speed DSL services, such as ADSL 2+, on an exchange wide basis so that customers in that part of the exchange area outside the exemption zone also will benefit.

31 This effect can be seen from comparing the "heat map" produced by iinet of the average speeds obtained by its ADSL 2+ customers during 2006 (reproduced in Figure 2 below); and the maps Telstra has provided of the SingTel Optus deployment in Section C of the Main Submission.<sup>21</sup>

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<sup>20</sup> In relation to the geographic dimension of markets, see also Telstra's response to Question E.7 below (first section) regarding when an end-user premises should be regarded as unserviceable.

<sup>21</sup> See iinet heatmap available at: <http://www.iinet.net.au/support/iinetnetwork/speeds.html>



**Figure 2: iinet speed 'heat map' of Sydney, 2006**

- 32 There is a significant alignment between the areas in which iinet reports the availability of higher speed ADSL services and higher densities of SingTel Optus HFC network reported by Telstra. ULLS based operators like iinet may not have deployed ADSL 2+ services specifically in response to the SingTel Optus HFC network, but the availability to consumers of high speed options, including Telstra's cable modems, is part of the competitive mix which is driving competitors to leap frog each other with service improvements. SingTel Optus, in turn, has recently announced an upgrade to its HFC network to increase speeds towards the levels provided by ADSL 2+ services offered by competitors such as iinet within its HFC deployment area. The competitive impetus provided by the exemption – which will force SingTel Optus to lift its game, including by using the HFC to serve a wider group of customers – will bring this dynamic to a higher pitch.
- 33 Telstra anticipates that SingTel Optus will argue that the relevant geographic markets are larger than the exemption zones (eg a whole ESA) and that competition is lessened because those parts of the ESAs without 100% HFC coverage which fall outside the exemption zone do not have sufficient scale to support SingTel Optus ULLS infrastructure. This is improbable because:
- the SingTel Optus investment in DSLAM infrastructure in the ESA is already sunk. The differences in opex are likely to be minimal;
  - third party evidence shows that the minimum efficient scale required to support a DSLAM is likely to be well under 100 accounts;<sup>22</sup> and

<sup>22</sup>

See, for example, DSL Business Case Report, Building a Facilities-based Local Loop Infrastructure: Retail & Wholesale Business Case for CLECs, available at: <http://www.novastars.com/dsl/dsl-business-case-report.htm>

- (c) the minimum efficient scale for SingTel Optus may be even less as many of the backhaul and other costs associated with its DSLAMs can be spread across other networks and services. For example, Telstra believes that the fibre rings which support the HFC network pass close by many Telstra local exchanges and SingTel Optus supports or could support DSLAM backhaul on these rings (or on other links which carry mobile traffic to and from base stations).

- 34 Accordingly, SingTel Optus should be required to provide detailed revenue and cost data to verify any assertion that its DSLAM infrastructure in ESAs with partial HFC coverage would be sub-scale.

#### *Product Markets*

- 35 It is also not necessary for the Commission to precisely define the retail or wholesale product markets. ULLS and HFC are upstream inputs to a similar range of retail services. Both can support voice telephony services and broadband services. The only current difference in the product set offered by SingTel Optus using its ULLS-based services and its HFC cable is that its pay TV service is supplied only on cable, although other ULLS-based operators do supply some subscription video services.
- 36 The downstream ULLS-based broadband and cable services should be considered as being in the same retail product markets. The service speeds and characteristics of the services offered using each technology are broadly similar. Telstra offers customers the choice between each, with cable offering higher speeds for those customers who want those speeds. However, as discussed below in response to Question B.2, SingTel Optus' bundles seem to be substantially equivalent across the two technologies, including on broadband speed, and it is unclear whether SingTel Optus actually offers end users an upfront choice between ULLS and cable connections. As a supplier, SingTel Optus treats them as close substitutes; and clearly expects its customers to accept them as substitutes.
- 37 Even if cable speeds are increased above DSL speeds in the future (including as a result of this exemption enhancing competition), cable and DSL broadband are still likely to be regarded as being in the same market based on a chain of substitution along the range of low, mid range and high speeds on the demand side. Moreover, regardless of how markets are defined, any such effect would be clearly pro-competitive.
- 38 Overseas, there is wide acceptance that cable-based services should be seen as substitutes for services supplied over incumbent copper networks:

*The growing ability of cable operators to deliver broadband communications over their networks makes them increasingly able to compete with traditional telecommunications operators on the retail side. Therefore, at present, under a forward-looking approach to market definition, the regulators should consider, in defining the broadband access market, whether broadband access via cable networks competes with broadband access via the traditionally public switched telecommunications network in view of both supply side as well as demand side substitutability considerations.*<sup>23</sup>

- 39 Overseas regulators have consistently treated DSL and cable broadband as being in the same downstream retail and wholesale markets:

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<sup>23</sup> T Madiega, "Innovation and Market Definition under the EU Regulatory Framework for Electronic Communications", World Competition 29(1) pp55-72, 2006, at p61.

- (a) Ofcom's 2004 review of the wholesale broadband access markets concluded that ADSL and cable were in the same retail broadband market and the current 2006/2007 review continues to support this conclusion;<sup>24</sup>
- (b) the Irish regulator, in its 2004 review of the broadband market, also considered cable and DSL to be part of the same retail market and found that at its broadest, self supply and external supply of ADSL and self supply of cable and fixed wireless broadband formed part of the relevant wholesale broadband market; and<sup>25</sup>
- (c) the Dutch regulator, OPTA in conducting its analysis of the retail and wholesale markets for broadband services, considered indirect constraints to play a significant role, and concluded that because cable operators competed at the retail level, cable formed part of the relevant wholesale and retail markets in which broadband services are provided.<sup>26</sup>

- 40 The Commission may consider that the relevant substitution effects are not fully symmetric. The possible relevance of such asymmetric substitution effects to market definition is flagged in the Commission's Draft Merger Guidelines<sup>27</sup>. However, even if asymmetric effects did arise in the present context, they would arise from HFC becoming more of a constraint on ULLS than ULLS is or would be on HFC. Since this would only happen were the exemption to increase the competitive vitality of the Optus HFC, it is, quite regardless of how the market is defined, clearly pro-competitive.
- 41 Telstra also considers that the broadband wireless services should be treated as being in the same markets as DSL and cable broadband services. Wireless technology is capable of delivering high speed internet and voice services which directly compete with fixed broadband services. Currently deployed wireless broadband technology using HSPA can achieve peak network download speeds of up to 14.4 Mbps.<sup>28</sup> These speeds are likely to increase to 21 Mbps in 2008 and 42 Mbps in 2009.<sup>29</sup> USB modems which deliver speeds of up to 3.5 Mbps are included in 24 month packages from each of SingTel Optus,<sup>30</sup> Vodafone<sup>31</sup> and Hutchison.<sup>32</sup>
- 42 Commissioner Ed Willett has also acknowledged that wireless and satellite broadband technology forms part of the market for broadband services in Australia.<sup>33</sup> Taking a forward-looking approach, there seems no reason for excluding these options from the relevant market.
- 43 The switched telephony services offered on Telstra's PSTN, the telephony services offered by SingTel Optus on its HFC network using its current technology, the VoIP services offered by other competitors on ULLS-based services and telephony offered on fixed

<sup>24</sup> Ofcom, Review of the Wholesale Broadband Access Markets 2006/2007, Explanatory Statement and Notification, 15 November 2007, at page 17.

<sup>25</sup> Commission for Communications Regulation, Market Analysis: Wholesale Broadband Access, Doc 04/25, 5 March 2004.

<sup>26</sup> See Decisio BV in conjunction with Tilburg University, "The Principle of Indirect Pricing Constraints in Market Analyses", 4 May 2007.

<sup>27</sup> As an analytical matter, Telstra is not convinced that the Draft Guidelines' approach is robust: in particular, if some customers can be attracted by an attempted SSNIP from product A to product B, presumably that same marginal demand can be attracted back from B to A.

<sup>28</sup> This figure is based on the peak network download speed for Telstra's Next G network.

<sup>29</sup> G Samuel, Speech to Australian Telecommunications Users Group 2008 Annual Conference, 13 March 2008, at page 2.

<sup>30</sup> Optus rates as advertised at:

[http://personal.optus.com.au/web/ocaportal.portal?\\_nfpb=true&\\_pageLabel=Template\\_wRHS&FP=/personal/internet/wirelessbroadband/plansandrates&site=personal](http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=Template_wRHS&FP=/personal/internet/wirelessbroadband/plansandrates&site=personal), accessed on 14 March 2008.

<sup>31</sup> Vodafone rates as advertised at: <http://www.vodafoneindirectdeals.com.au/Campaign.aspx?cid=34&trackID=VODDR:2128:1342> accessed on 14 March 2008.

<sup>32</sup> Hutchison 3 rates advertised at: [http://www.three.com.au/threestore/mobilebroadband/USBCap29\\_12.xhtml](http://www.three.com.au/threestore/mobilebroadband/USBCap29_12.xhtml), accessed on 25 March 2008.

<sup>33</sup> Ed Willett, speech given to Broadbanding Regional Australia 2006, "Understanding competition in the growth of Australian Broadband", 21 November 2006, at page 3.

wireless networks also should be treated as being in the same downstream market.<sup>34</sup> As set out in Telstra's Submission in support of its exemption applications in relation to Telstra's LCS and WLR services, the commercial reality is that VoIP is increasingly seen by customers and service providers as a substitute to traditional, PSTN-based voice services.<sup>35</sup> Market Clarity predicts that the number of paid VoIP services in operation in Australia will climb to more than 2.8 million by 2011.<sup>36</sup> Even if that forecast proved overly optimistic, there is no sensible basis for excluding VoIP services from the relevant market.

- 44 The Commission stated in its final decision in relation to the Declaration Inquiry for the ULLS, PSTN OA and CLLS:

*VoIP service offerings (through low cost or zero cost calls and value-added data services) have the potential to provide a competitive alternative to traditional fixed-line (circuit switched) voice and data services and more access-based competition because they can be provided over existing broadband services without duplicating extensive access infrastructure networks.*<sup>37</sup>

- 45 More recently, the Commission has seemed to step back from this position:

*The development of new technologies indicates there is some prospect of access-based competition. In particular, the greater take-up of VoIP in conjunction with DSLAM rollouts is a development that could, in the future, test the dominance of Telstra in local telecommunications. At present there are consumer concerns with respect to the universality, security and quality of VoIP that need to be addressed before it can become a credible threat to Telstra's dominance.*<sup>38</sup>

- 46 However, the Commission's more cautious recent position on VoIP is out of step with overseas regulators. There is now wide acceptance that significant substitution between PSTN and VoIP services is already occurring or likely will occur within the time horizon of the forward looking approach to market definition required for access regulation. As far back as February 2005, the French competition authority rejected the French telecommunications regulator's view that PSTN telephony and VoIP were in different markets because of any "gap" in the technical and service quality differences in the services<sup>39</sup>. The competition authority considered that, taking account of likely technical improvements with better broadband services, VoIP would be a close substitute for PSTN within the next several years. The Canadian<sup>40</sup>, Swedish<sup>41</sup> and German<sup>42</sup> regulators also have decided that PSTN and VoIP are in the same product market.

<sup>34</sup> Telstra also considers that, given the level of fixed-mobile substitution in Australia, that the relevant markets also include mobile services.

<sup>35</sup> See industry developments and commentary set out in Telstra's Supporting Submission to the ACCC in relation to Telstra's Local Carriage Service and Wholesale Line Rental Service exemption Application, July 2007, at pages 26-28.

<sup>36</sup> Source is a report referencing Market Clarity, *The Australian VoIP Services Market 2004-2011*, 7 March 2006, as reported at [http://www.marketclarity.com.au/news/06-03-22\\_cfm](http://www.marketclarity.com.au/news/06-03-22_cfm), cited in Telstra's Supporting Submission to the ACCC in relation to Telstra's Local Carriage Service and Wholesale Line Rental Service exemption Application, July 2007, at page 26.

<sup>37</sup> ACCC, Final Decision in relation to Declaration Inquiry for the ULLS, PSTN OA and CLLS, July 2006, at pages 34-35.

<sup>38</sup> ACCC Telecommunications Reports: "Telecommunications Competitive Safeguards for 2005-2006, Changes in the Prices Paid for Telecommunications Services in Australia 2005-2006", April 2007, at page 20.

<sup>39</sup> <http://www.conseil-concurrence.fr/pdf/avis/05a05.pdf>

<sup>40</sup> CRTC Telecom Decision, 2005-28, Regulatory Framework for Voice Communication Services Using Internet Protocol, reference: 8663-C12-200402892, at para 126.

<sup>41</sup> Post and Teletyrelsen, an Analysis of Residential Customers' Substitution of Traditional Fixed Telephony with IP based and mobile telephony, Report No PTS-ER-2006: 38, File Reference 06-3845/23, 5 September 2006, at section 8.3.

<sup>42</sup> See approach to regulation of VoIP in Germany reported at:

[http://www.bundesnetzagentur.de/enid/f2421c12c268245b4a4aef76e992d5d7,0/Telecoms\\_Regulation/Voice\\_over\\_IP\\_1ku.html](http://www.bundesnetzagentur.de/enid/f2421c12c268245b4a4aef76e992d5d7,0/Telecoms_Regulation/Voice_over_IP_1ku.html)



*Customer Markets*

- 47 Telstra also does not consider that it is necessary for the Commission to precisely segment the markets by customer type, for the following reasons:
- (a) the overwhelming proportion of customer premises in the proposed exemption zones are residential premises;
  - (b) the ULLS and cable-based voice and data services supplied to residential customers also meet the requirements of the SOHO and SME customers within the proposed exemption zone; and
  - (c) most of the premises of large corporate customers within the proposed exemption zone (eg suburban branches of banks) can be served by services which can be supplied over ULLS and cable infrastructure.
- 48 There are probably a limited number of large sites within the proposed exemption zones with requirements for symmetrical data services in excess of the capabilities of ULLS and cable-based infrastructure (including when upgraded to DOCSIS 3). However, it is likely that competitors, including SingTel Optus, already serve these customers with a single fibre “shot” directly connecting the corporate premises. In SingTel Optus’ case, this fibre shot may be spliced from the intra-city fibre ring which supports its HFC network (in other words, the “F” in the HFC network and not the “C” would be utilised by SingTel Optus to serve these large customers). These customer sites can be treated as falling outside the broad customer markets relevant to this exemption application.

*Functional Markets*

- 49 The impact of the exemption needs to be considered at the wholesale and retail functional levels. However, as discussed in Telstra’s response to Question C.2, both the LTIE test and economic logic requires that competition at the retail level be addressed before considering whether additional remedies are required at the wholesale level.
- 50 Further, the wholesale level should consider cable-based services even if SingTel Optus chooses not to offer cable-based wholesale services within the exemption zone. The downstream SingTel Optus retail services will still provide an indirect competitive constraint upstream (in addition to the direct competitive constrain of continued availability of regulated wholesale services to all other access seekers). This is also further discussed in the response to Question C.2.
- 51 Telstra has provided further information which is relevant to this question in Section G.1 of the Main Submission.

**B.2 How should these markets be defined? What evidence of demand and supply-side substitutability supports that market definition?**

- 52 Strong evidence of the substitution between ULLS-based downstream services and cable-based services comes from how SingTel Optus itself currently sells those services.
- 53 As noted above, the same SingTel Optus bundle tends to be offered across ULLS connections (which it calls “Optus DSL Direct” or the “Optus Direct” network) and HFC cable. Even if the cable and ULLS connection are separately identified, most of the price and non-price features of the service are exactly the same. If there are differences in SingTel Optus bundles based on the means of delivery, it is between use of Telstra DSL

wholesale services, on the one hand, and ULLS and cable-based services on the other. This can be seen from the following screen shot taken from the Optus web site describing the features of the SingTel Optus' internet services.<sup>43</sup>

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<sup>43</sup>

[http://personal.optus.com.au/web/ocaportal.portal?\\_nfpb=true&\\_pageLabel=Template\\_wRHS&FP=/personal/internet&site=personal](http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=Template_wRHS&FP=/personal/internet&site=personal)

Personal

Internet

- Broadband
- Dial-up
- Notebooks
- Satellite
- Wireless Broadband
- Security Suite
- ISP Compliance

MOBILE HOME PHONE INTERNET TV BUNDLES AS ADVERTISED CUSTOMER HELP MY ACCOUNT VIEW

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Internet



Whether you like to be online all the time or just some of the time, Optus has an Internet solution to suit you.

Optus offers four kinds of Internet access and the type of Internet access that you can receive depends on the area in which you live.

[View the IIA Standard Fc Agreement](#)

	Optus Dial-up	Broadband		
		Optus DSL	Optus DSL Direct	Optus Cable
Speed	up to 56kbps	256kbps, 512kbps, 1.5Mbps & 8Mbps•	Up to 20Mbps <sup>1</sup>	Up to 20Mbps <sup>1</sup>
'Always on' connection		✓	✓	✓
Be on the phone and on the Net		✓	✓	✓
Flat monthly fee <sup>2</sup>	Unlimited <sup>3</sup> plan only	✓	✓	✓
Optus Internet Security Suite - Anti-virus, Anti-Spyware, Firewall & Parental Control		12 months FREE*	12 months FREE*	12 months FREE*
FREE Optus email SPAM filter	✓	✓	✓	✓
Optus homepage with content that can be personalised	✓	✓	✓	✓
FREE email addresses	5	5	5	5
FREE webspace	10MB per account	10MB per email address	10MB per email address	10MB per email address
Access to website building tools	✓	✓	✓	✓
Optus webmail	✓	✓	✓	✓
FREE 24x7 Technical Support	✓	✓	✓	✓
Self installation	✓	✓	✓	
Professional installation				✓
Billing options	Credit card & direct debit	Credit card & direct debit	Credit card & direct debit	Credit card, direct debit & paper bill



For information on Optus' compliance with the IIA Family Friendly ISP Program [view Optus' Online Safety page](#).

Important Information

1. Displayed speed is based on Optus network testing. Not applicable if your service has been speed limited. Speeds of up to 20Mbps are available in selected areas. Actual speeds will vary and may be slower. Many factors affect speeds such as, Internet traffic, your hardware and software, the source of your download, and your location.
2. Data usage will be counted in Megabytes (MB) and includes both uploads and downloads. If you exceed your monthly data allowance, access will be speed limited to 64 or 128kbps depending on your plan until the end of the billing month.
3. Five hour session limit and 20 minute idle time-out applies for the Unlimited Dial-up plan.

• Premium speed option: Speed on some selected plans may be increased to 8000/384 kbps by paying an additional \$30 per month. A one-off speed change fee applies when changing down to a lower speed option. The fee will vary depending on the speed of the plan you are changing to.

\* To get the 12 months free offer, eligible Optus Broadband customers must obtain the security suite subscription number by 31 May 2008. After 12 months a \$7 monthly fee may apply. Must meet minimum PC-Compatible system requirements. Software will uninstall existing security packages and utilize customers' data allowance for update.

**Serviceability:** For technical and commercial reasons not all homes can receive Optus services. Optus services are not available in all areas or in NT and TAS. Optus Cable Broadband is only available to selected homes in Sydney, Melbourne and Brisbane. A \$300 pro rata cancellation fee applies if you cancel your broadband service before your initial Agreement Period ends. Optus DSL Direct Broadband is only available with the Optus Local Direct Service.

Information correct as at 18 December, 2007.

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- 54 While some SingTel Optus bundles explicitly refer to both DSL Direct and to cable or to cable alone, other recent offerings refer only generically to “Optus Broadband”. The reference to the bundle being offered using either Optus Direct DSL or Optus HFC is buried in the “fine print” in the context of saying that the offer is not universally available. It appears that the customer may well not be offered an upfront choice between a cable or ULLS connection (as compared to being offered the choice if they know enough to ask for cable over copper in the first place).

Dear [REDACTED]

We'd just like to remind you about our great Optus 'yes' Fusion plan. It allows you to combine your home phone and broadband services together for as little as \$79\* a month. For one low monthly fee (when you connect for 24 months) you'll receive:

Home Phone	Broadband	Monthly Price	Bonus Discount
<ul style="list-style-type: none"> <li>Unlimited* standard local and national calls</li> <li>Unlimited* calls to Optus GSM mobiles</li> <li>Line rental</li> </ul>	<ul style="list-style-type: none"> <li>2GB* broadband usage</li> <li>\$0* modem and connection</li> <li>Super-fast speeds</li> <li>Free† Internet Security Suite, valued at \$135*</li> </ul>	\$79 <sup>†</sup>	10% off your mobile bill every month*

For our full range of plans visit [optus.com.au/optusfusion](http://optus.com.au/optusfusion) or take advantage of this great offer by calling 1800 501 294.

Yours sincerely,  
  
 Vincent Dempsey  
 General Manager, Customer Management

\*\$9.95 delivery fee applies. †Excess usage fee applies.

003277-011  
 [REDACTED]  
 MARRICKVILLE NSW 2204

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We hear you 'yes' OPTUS

We're always on the lookout to provide you with information to get the most out of your communication services. However, if you would not like to receive any further promotional literature from Optus, please call us on 1800 500 500.  
**Important Information. Optus 'yes' Fusion \$79 plan:** Includes line rental, unlimited standard local and national long distance calls, unlimited calls to Optus GSM mobiles, 2GB of standard data allowance each month. New Optus Broadband customers receive free connection and free standard wired modem. \*Minimum total cost over 24 months for Optus 'yes' Fusion \$79 plan with Optus Mobile (\$19 plan) is \$2,361.95 (includes modem delivery fee and payment by direct debit). Fees apply for payment of account by non-direct debit or credit/charge card. Cancellation fees apply. A fee may apply if your existing phone number is not transferable to Optus. **Availability:** Offer available to residential Optus Broadband and Home Phone customers who connect all relevant services in the same name and service address to the Optus Direct or Optus Cable networks. **How customers must connect:** for a minimum term of 24 months. Optus Cable Broadband is only available to selected homes in Sydney, Melbourne and Brisbane. Optus services are not available in all areas or in NT and TAS. **Included value:** \*Unlimited call offer applies to standard residential calls only, excludes International calls and calls to non-Optus mobiles, CDMA and MobileSat. 19XX calls, calls made over another carrier's network, International Directory Assistance and Operator Service calls plus other services such as Voicemail and Unlisted Numbers service. Service cannot be used for commercial purposes. Optus Local and Long Distance Fair Go™ policy applies. Included value expires at the end of each month and is not refundable or transferable. Normal call charges apply to calls and services that are not part of the included value. †If you exceed your standard monthly data allowance, excess usage will be charged at 15¢/MB up to 2GB after which your speed will be limited to 64Kbps until the end of your billing period. Data usage includes uploads and downloads. Excess usage charges may be billed up to 3 months in arrears. 1GB = 1000 MB. †Security Suite. To get the 12 months free offer, eligible Optus Broadband customers must obtain the security suite subscription number by 31 May 2008. After 12 months a \$7 monthly fee may apply. Must meet PC-Compatible system requirements. Software requires existing security packages to be uninstalled and will utilise customers' data allowance. †RRP of Security Suite 2006 version. †10% discount excludes handset repayments. Optus Zoo browsing, downloading and content charges and applies to one selected mobile service only. Information correct as at 11 December 2007. Offer available until March 2008 and may be withdrawn at anytime without notice. For full terms and conditions visit [www.optus.com.au/fusion](http://www.optus.com.au/fusion). SingTel Optus Pty Limited ABN 90 052 833 208.

- 55 SingTel Optus also appears to make no distinction between ULLS-based telephony services and cable-based telephony services in its marketing. SingTel Optus labels ULLS-based telephony as “Optus Local Access Direct or LAD” telephony and cable telephony as “Local Access Telephony or LAT”, although nowhere on its website does it explain that this is what these terms mean. SingTel Optus only uses LAT and LAD to distinguish them both from telephony provided by means of resale of Telstra switched telephony services (which it terms “Local Access Resale or LAR”). In its FAQ, SingTel Optus says:<sup>44</sup>

**what is the difference between Optus Local Access Telephony (LAT), Local Access Direct (LAD) and Local Access Resale (LAD)?**

*Optus LAT and LAD customers have access to the Optus network (also called On Net customers). This service is available to selected customers residing in metropolitan areas. Optus LAR customers do not have access to the Optus network (also known as Off Net customers). Their service is delivered via the Telstra network, which Optus uses to provide their Off Net customers with local access.*

- 56 The Optus web site lists eight local telephone plans. Of those, 5 are marked as being subject to the following qualification:<sup>45</sup>

44

[http://personal.optus.com.au/web/ocaportal.portal?\\_nfpb=true&\\_pageLabel=Template\\_wRHS&FP=/personal/homephone/faqshomophone&site=personal](http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=Template_wRHS&FP=/personal/homephone/faqshomophone&site=personal), accessed on 25 March 2008.

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[http://personal.optus.com.au/web/ocaportal.portal?\\_nfpb=true&\\_pageLabel=personal\\_telephony\\_producttypeTEL\\_marketSegment&productpath=/personal/telephony&FP=/personal/homephone/homephoneplans&site=personal](http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=personal_telephony_producttypeTEL_marketSegment&productpath=/personal/telephony&FP=/personal/homephone/homephoneplans&site=personal), access on 25 March 2008.

*Only available on the Optus Network. For technical and commercial reasons not all homes can receive all Optus services. Available to Optus Cable and Direct residential customers with preselected Optus Long Distance and Optus Local for 12 months connection. Optus Cable and Optus Direct services are available only to selected homes in Sydney, Melbourne and Brisbane. Optus Direct services are not available in all areas, or in NT and Tas.*

- 57 Thus, SingTel Optus' customer marketing seems to make no distinction between telephony delivered over cable or ULLS, which suggests they are close substitutes. The use of cable or ULLS to deliver telephony may be determined by the choice of technology for broadband; but even if it were assumed that customers have a choice of broadband technology, the decision for telephony seems likely to be made on the basis that the telephony service is equivalent and substitutable as between the two technologies.
- 58 Telstra has provided further information which is relevant to this question in Section G.1 of the Main Submission.

### **B.3 Is Telstra's approach to defining its exemption area – within 75 metres of customers' premises in areas within the Optus HFC network footprint – an appropriate one?**

- 59 As set out in Telstra's responses to Questions A.3 and A.4 and in Section F of the Main Submission, the rationale behind the proposed distance between the premises and the SingTel Optus HFC network is based on the length of a drop which does not require the installation of an additional amplifier. This reflects the definition of a "standard installation" on Telstra's HFC network. It essentially identifies when premises can be easily serviced by more than one end-to-end network.
- 60 This is a conservative approach. Premises which are located more than 75 metres beyond the network may well still be serviceable. If the customer is prepared to pay an additional charge, which covers the costs of the amplifier, Telstra routinely connects customer premises which are further than 75 metres from its HFC network.
- 61 In New Zealand, the Commerce Commission found that an appropriate rule in a similar circumstance would be 100 metres.<sup>46</sup> Nonetheless, it should also be noted that the Commerce Commission was still of the view in respect of residential subscribers that:
- it will be economically feasible to deploy customer drop leads out to 200 metres in a number of cases*<sup>47</sup>
- 62 In respect of business customers, the Commerce Commission also found that:
- it may be feasible to install a customer drop lead to 'high revenue' or corporate customers located at least 200 metres from the existing local access network*<sup>48</sup>
- 63 Telstra has provided further information which is relevant to this question in Section F of the Main Submission.

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<sup>46</sup> Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", Decision 497 dated 12 May 2003

<sup>47</sup> "Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", Commerce Commission Decision 497 dated 12 May 2003 at paragraph 193.

<sup>48</sup> "Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services", Commerce Commission Decision 497 dated 12 May 2003 at paragraph 214.

**B.4 What further data, if any, would the ACCC need to analyse market definition?**

- 64 On the demand side, the Commission should seek further information from SingTel Optus about how the choice between Optus DSL/telephony Direct and Optus cable broadband/telephony are marketed to customers:
- (a) are customers within the HFC footprint always offered an upfront choice between cable or ULLS?
  - (b) if not, in what circumstances are they offered that choice?
  - (c) are there circumstances in which SingTel Optus makes the selection between ULLS or cable independently of customer selection or consent?
- 65 On the supply side, it is, of course, Telstra's contention that SingTel Optus does engage in a dual sourcing policy under which it chooses between ULLS and HFC for reasons other than the technical impracticality of serving a home using HFC (eg a difficult battleaxe block). Many of the questions asked by the Commission go to this issue. However, the Commission also should obtain the following information from SingTel Optus about the connection of MDUs and SDUs within the SingTel Optus HFC deployment areas:
- (a) how many SDUs are connected by ULLS?
  - (b) how many SDUs are connected or at some stage have been connected by both ULLS and HFC at the same time?
  - (c) how many MDUs are connected by both ULLS and HFC?
  - (d) how many MDUs are currently connected by ULLS even though they have been backboned for SingTel Optus HFC (whether or not lateral cabling is active)?
- 66 Many of the Commission's questions will only obtain a current snapshot of SingTel Optus' practices. Telstra believes that SingTel Optus continues to shelter behind arguments relating to the early days of cable deployment, such as allegations of Telstra acting anti-competitively in deploying its HFC network. While Telstra rejects these allegations, Telstra believes that broadband in any event has transformed the fortunes of the SingTel Optus HFC network, even if SingTel Optus has not invested to fully benefit from its network (see Telstra's response to Question C.1). It would be useful if the Commission obtained more time sequence data from SingTel Optus so that it could see any trends in SingTel Optus retail services and the relative reliance by SingTel Optus on wholesale services and cable.
- 67 In particular, the Commission should seek from SingTel Optus all Board documents, and other high level documents (including consultant reports), that address the factors involved:
- (a) in the decision to use ULLS as against HFC, and vice versa; and
  - (b) in determining the quantum of investment in the HFC and in allocating investment funds or operating expenses as between the HFC and the ULLS.
- 68 In addition, we refer the Commission to Section H of the Main Submission and urge the Commission to require Optus to provide information set out in paragraphs 248 and 249 of

that Section. This information may not otherwise be provided by Optus in response to this Discussion Paper.

## C Promotion of competition

### C.1 The ACCC seeks comment from interested parties on a number of issues relevant to whether the grant of the exemption would promote competition.

- 69 In addition to the answers to specific questions below, Telstra wishes to comment on the Commission's assumption that "Telstra's control of both the copper network and the largest HFC network ... appears to have reduced the level of competition in telecommunications markets in Australia".<sup>49</sup>
- 70 The Commission arrived at this view in 2003. While we disagree with that view, Telstra submits that in any event the evidence of the intervening years points to very different forces that are constraining infrastructure competition in Australia – namely, the ongoing availability of SingTel Optus' option to climb back down the ladder of investment rather than to aggressively pursue infrastructure competition, notwithstanding that it has all the capabilities to do so (including back-end systems for the provision of telephony, broadband and pay TV across its network, and access to the best pay TV content and brand).
- 71 In its 2003 report<sup>50</sup>, the Commission noted the desirability of network competition, and in particular, network competition between HFC and copper access networks.<sup>51</sup> In 2008, however, the availability of regulated access is enabling, if not positively encouraging, SingTel Optus to homogenise its HFC and copper-based broadband products in a manner that quite precisely counters the objective that the Commission cited.
- 72 SingTel Optus' behaviour since the 2003 report exposes the fact that the solution on both fronts already exists and lies sleeping, at least in the areas that are the subject of this exemption application. Rather than perpetuating regulation or seeking drastic legislative remedies of the kind then contemplated, the Commission now clearly has before it a better, deregulatory option that will achieve better outcomes at lower cost, by harnessing the most powerful mode of competition available.

*Current state of play in the relevant markets:*

### C.2 What, if any, services does Optus currently provide in the wholesale market using its HFC network? If so, does this offer any significant competitive constraint on the pricing of Telstra's wholesale fixed line services?

- 73 Telstra is not aware of any wholesale services which SingTel Optus **currently** offers on its HFC network.
- 74 However, the Commission's question is misconceived for several reasons.
- 75 First, the constraints on Telstra's wholesale pricing, including for ULLS, will not diminish as a result of this exemption being granted because all other access seekers will continue to be entitled to regulated access to declared services. **Indeed, a direct and continuing constraint on Telstra's ULLS pricing after the exemption is granted, as it is currently,**

<sup>49</sup> ACCC Discussion paper, page 13.

<sup>50</sup> ACCC (2003), Emerging market structures in the communications sector, June 2003.

<sup>51</sup> ACCC (2003), Emerging market structures in the communications sector, June 2003, at page 40.

**will be the Commission itself.** Telstra simply will not be able to raise its ULLS price if SingTel Optus no longer has access to ULLS for retail or wholesale products.

- 76 Second, the Commission's question is circular. If the availability of regulated ULLS services is one of the reasons why SingTel Optus does not currently offer wholesale products on cable (instead preferring a wholesale offering on ULLS in cabled areas), the absence of a current wholesale offering on the SingTel Optus cable network cannot be held up as a basis for deciding that granting of the exemption will reduce the competitive tension in the wholesale market.
- 77 The relevant question is how SingTel Optus would behave in the wholesale market if it did not have regulated access to ULLS. Therefore, the issue is not SingTel Optus' current wholesale products but its capability and incentives to offer future cable-based wholesale products. The SingTel Optus HFC network has the capability to provide wholesale services and SingTel Optus could utilise much of its existing wholesale systems for any such cable-based wholesale products, as discussed in the Harris Report.
- 78 As noted in Telstra's Main Submission, Ofcom considered that, on withdrawal of bitstream services in certain exchange areas in the UK, Virgin Media would have an incentive to offer a wholesale product on cable (although, unlike SingTel Optus, it would be "starting from scratch" as it does not have wholesale systems already in place). The opportunity to win wholesale customers from Telstra will also provide a strong incentive for SingTel Optus to provide wholesale services over its HFC network.
- 79 Even if SingTel Optus did not offer a wholesale product on cable after the granting of the exemption, it may still provide an indirect competitive constraint on wholesale pricing (by Telstra and other wholesale providers) because it is competing downstream. If upstream service providers raise their prices too high, downstream providers will not be able to compete against a vertically integrated cable operator. OfCom's relevant analysis in its 2004 review was as follows:

*In the absence of wholesale products there would clearly be no direct competition between ADSL and cable at the wholesale level. However, it is still possible to consider the question of market definition at the wholesale level because competition would take place further downstream at the intermediate (e.g. IPStream + BT Central) and retail levels. The relevant question is whether a hypothetical monopolist of a wholesale service could profitably and sustainably raise prices by a small but significant amount. Retail prices can be regarded as being comprised of a number of input costs and one of these input costs can be characterised as the cost of a wholesale service. If the charge for this wholesale service were to increase, and all other elements of the retail service were priced at the competitive level, this would translate into a price increase at the retail level.*

...

*in the actual case under consideration, the wholesale element of this service comprises approximately 45% of the retail price, and, in principle, the services are essentially the same from the end user's perspective and therefore are very close substitutes at the retail level. On that basis, it is Ofcom's current view that such a 4.5% price increase at the retail level (i.e. one corresponding to a 10% increase at the wholesale level) should lead to sufficient numbers of customers switching to cable based broadband internet access to render the price increase unprofitable. Therefore, in this unregulated situation, cable would be an indirect constraint on the behaviour of the ADSL based wholesale*



*internet access provider to such an extent that the appropriate wholesale market definition would include both ADSL and cable.*<sup>52</sup>

- 80 The effect of the indirect constraint is reinforced by existing regulatory approaches under Part XIB of the TPA. Telstra would remain bound by imputation tests in respect of its upstream pricing. If SingTel Optus did compete more vigorously on its HFC network in downstream retail markets, this would constrain Telstra's downstream pricing - because a downstream competitive response would of necessity flow into upstream charges at the point at which an imputation test would otherwise be failed.
- 81 It is also important to bear in mind that even if the exemption is granted, SingTel Optus will still have the ability to come to a commercial arrangement for accessing ULLS. In any such negotiations Telstra's approach would be constrained by the fact that Optus would have the fallback option of self-supply.
- 82 Third, the Commission asks its questions about wholesale markets (C.2) and retail markets (C.4) in wrong sequence. The focus of Part XIC is the long term interests of end users, not the short term interests of access seekers. Addressing the need for regulated wholesale access before working out if withdrawal of regulation will cause a problem in the downstream retail market is a solution looking for a problem. As Ofcom has said:

*The analysis of retail market definitions is logically prior to the definition of upstream (wholesale) markets. This is because demand for upstream services is a derived demand, i.e. the level of demand for wholesale inputs depends on the demand for outputs (retail services). The definition of a retail market is likely to influence the market definition, and consequently any assessment of SMP, in related upstream markets. Where wholesale services are an important input into the retail services, the relevant upstream markets are generally (at least) as broad as the demand-side substitutes in the relevant retail market. Because of this, Ofcom's preferred approach to market definition is to define markets sequentially, starting with those that are furthest downstream, and ending with those that are furthest upstream. The purpose of Ofcom's market definition exercise is to inform its assessment of market power and identify appropriate remedies in the relevant market.*

*It is therefore important that, at the wholesale level, markets are defined using the assumption that there is no regulation in any market. This approach ensures that the assessment of market power at the wholesale level does not depend on a retail market definition that is influenced by wholesale remedies. The method avoids the potential problem of circularity which could arise in market definition. However, the market definition used in any assessment of market power in downstream markets must be conducted in the presence of any proposed regulation in markets that are further upstream, since the presence of any such regulation may provide a constraint at the retail level by removing barriers to entry.*<sup>53</sup>

- 83 Looking at wholesale markets before retail markets can thus lead to serious errors in market definition and the assessment of market power. This is demonstrated by differences in Europe over whether cable should be included in the same retail and wholesale markets as copper. As Ofcom explains, the danger in excluding cable from the wholesale market definition, even if the cable operator offers no wholesale service, is that the incumbent telco's market power will be overestimated. The analysis will also be self-fulfilling. If the trigger to regulation of ULLS is the incumbent's market power, then

<sup>52</sup> Ofcom, Review of the wholesale broadband access markets, Final explanatory Statement and Notification, 13 May 2004 at paras 2.148 and 2.151.

<sup>53</sup> Ofcom, Review of the retail leased Lines, symmetric broadband originations and wholesale trunk segments markets, Final Statement, 24 June 2006, paras 2.3 to 2.5, which is quoted at paragraph 2.7 of Schedule A of Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007.

by defining the wholesale market in a way that only includes copper networks, the predetermined answer will be that ULLS should continue to be regulated.

- 84 In the circumstances at issue here, the harmful consequences of such an approach would be even more far-reaching. In effect, the Commission would, as a result of an incorrect methodology, perpetuate SingTel Optus' reluctance to make full use of its HFC, undermining the development of competitive constraints at both the wholesale and retail layers.
- 85 Telstra has provided further information which is relevant to this question in Sections B and C of the Main Submission.

**C.3 What, if any, services does Optus currently provide in the retail market using its HFC network? If so, does this offer any significant competitive constraint on the pricing of retail fixed line services?**

- 86 SingTel Optus offers retail telephony services on its HFC network which are a close substitute for retail PSTN telephony (see response to Question B.2).
- 87 SingTel Optus offers retail broadband services on its cable network which are a close substitute for retail broadband services (see response to Question B.2).
- 88 SingTel Optus offers retail pay TV services only on its HFC network.
- 89 SingTel Optus offers the same "double play" bundles of telephony and broadband on its HFC network and using ULLS connections. SingTel Optus does not appear to offer "triple play" bundles on its HFC network. As discussed above, the effect, and perhaps the intention, of this approach is to preserve SingTel Optus' options to dual source between HFC and ULLS, possibly independently of the customer being offered or making his or her own choice of connection technology.
- 90 SingTel Optus does not appear to offer retail high speed, high quality data services for corporate customers via its HFC network. However, as set out in the Harris Report, the SingTel Optus HFC network could be readily upgraded to support data services of a speed and quality suitable for mid sized enterprises and suburban sites of large corporate customers. SingTel Optus' current policy is probably to serve the few sites requiring higher speed services within the HFC footprint by direct connect fibre rather than ULLS or cable (see response to Question B.2).
- 91 Telstra has provided further information which is relevant to this question in Section D of the Main Submission.

**C.4 Is competition in downstream retail markets for relevant services effective?**

- 92 The retail markets in which ULL-based and cable-based services are offered are workably competitive. Notably, the area to which this exemption relates (that is, the cable footprint of SingTel Optus) falls within major cities, and is generally a more lucrative area in which to offer those services than the areas outside it (indeed, SingTel Optus' selection of locations in which to roll out cable was almost certainly made on the basis of telephony spend). As such, the area addressed by this exemption application has attracted more competitors than other areas, resulting in more intense competition.

93 [This paragraph is confidential]<sup>54</sup>

94 As evidence of what could be done if SingTel Optus had the incentive to use its HFC network more effectively, *when SingTel Optus chooses to compete via cable*, it can do so effectively. For example, more recent SingTel Optus data indicates that of the 1.4 million homes that SingTel Optus says are HFC-serviceable, 38% take up SingTel Optus' cable telephony service and 29% take up its broadband service.<sup>55</sup>

95 Telstra has provided further information which is relevant to this question in Sections C, D and E of the Main Submission.

### **C.5 What is the number of HFC network connections and how has this changed over time?**

96 Each of SingTel Optus and Telstra reports its broadband HFC connections as part of its regular financial reporting. Estimates of connection by cable to the SingTel Optus HFC network are made by the Australian Film Commission and this body also estimates the technology split between satellite and cable for FOXTEL subscribers. SingTel Optus has, from its December 2007 quarterly report, recommenced reporting the number of telephony subscribers to which it delivers services using its HFC network.

97 Set out in Telstra's response to Question C.6 is a table (Table 1) showing the number of voice, data and telephony subscribers served by the SingTel Optus and Telstra HFC networks.

98 Whereas Telstra can make estimates as to the number of SingTel Optus HFC connections, it does this relying on publicly available data. In the original submission, Telstra provided a graph which showed trends in SingTel Optus HFC connections. We refer the Commission to that chart.<sup>56</sup> Any additional information should reasonably be sought from SingTel Optus.

99 Telstra has provided further information which is relevant to this question in Sections C, D and E of the Main Submission.

### **C.6 What proportion of voice, data and pay TV customers are delivered via HFC networks as opposed to other delivery mediums?**

100 The following information will assist the Commission in assessing this question:

- (a) at June 2006, broadband subscribers in metropolitan areas exceeded 42% of premises;<sup>57</sup>
- (b) the total subscription television subscribers at June 2007 was slightly over 2 million<sup>58</sup> with the balance of subscribers predominantly served by satellite (Austar and FOXTEL) as well as the Telstra HFC;

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<sup>54</sup> [C-I-C]

<sup>55</sup> Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

<sup>56</sup> Schedule A to Telstra's Application for Exemption from Standard Access Obligations in Respect of the SingTel Optus HFC Network Dated 17 December 2007 at Figure 8.

<sup>57</sup> Australian Bureau of Statistics Patterns of Internet Access in Australia 8146.0.5 5.001 published in November 2007

<sup>58</sup> Source: Australian Film Commission at <http://www.afc.gov.au/gtp/wptvsubsxops.html>.

- (c) the number of Telstra PSTN lines in service (including wholesale lines) was 9.76 million in June 2007.<sup>59</sup> That is, the SingTel Optus share of PSTN lines by HFC as a proportion of all PSTN lines is about 5.2%;
- (d) Telstra estimates, based on publicly available data, that SingTel Optus HFC telephony services represent approximately 24% of the homes passed and approximately 38% of the homes SingTel Optus treats as serviceable;<sup>60</sup> and
- (e) SingTel Optus reports that it has HFC broadband connections in 29% of homes treated as serviceable.

101 The number of subscribers to SingTel Optus HFC services are shown in Table 1 below.

Year	SingTel Optus broadband <sup>61</sup>	SingTel Optus television <sup>62</sup>	SingTel Optus telephony <sup>63</sup>
2002	57,000 <sup>64</sup>	250,000	493,000 <sup>65</sup>
2003	96,000 <sup>66</sup>	222,000	504,000 <sup>67</sup>
2004	143,000 <sup>68</sup>	201,460	502,000 <sup>69</sup>
2005	227,000 <sup>70</sup>	157,000	493,000 <sup>71</sup>
2006	335,000 <sup>72</sup>	142,000	507,000 <sup>73</sup>
2007	405,000 <sup>74</sup>	151,000	534,000 <sup>75</sup>

**Table 1 – Use of SingTel Optus’ HFC network**

102 Telstra has provided further information which is relevant to this question in Section C of the Main Submission.

<sup>59</sup> Telstra Annual Report 2007 at page 8.

<sup>60</sup> At December 31 from Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

<sup>61</sup> Figure at 31 March in the following year except where footnoted

<sup>62</sup> Figure at 30 June of relevant year. Source: Australian Film Commission at <http://www.afc.gov.au/gtp/wptvsubsxops.html>

<sup>63</sup> Figure at 31 March in the following year except where footnoted

<sup>64</sup> SingTel – Management Discussion and Analysis of Unaudited Financial Condition and Results of Operations for the Quarter and Year Ended 31 March 2003

<sup>65</sup> SingTel – Management Discussion and Analysis of Unaudited Financial Condition and Results of Operations for the Quarter and Year Ended 31 March 2003

<sup>66</sup> SingTel – Management Discussion and Analysis of Unaudited Financial Condition and Results of Operations for the Quarter and Year Ended 31 March 2003

<sup>67</sup> SingTel – Management Discussion and Analysis of Unaudited Financial Condition and Results of Operations for the Quarter and Year Ended 31 March 2003

<sup>68</sup> Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Fourth Quarter and Year Ended 31 March 2005

<sup>69</sup> Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Fourth Quarter and Year Ended 31 March 2005

<sup>70</sup> Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Fourth Quarter and Year Ended 31 March 2005

<sup>71</sup> Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Fourth Quarter and Year Ended 31 March 2005.

<sup>72</sup> At December 31 from Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

<sup>73</sup> At December 31 from Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

<sup>74</sup> At December 31 from Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

<sup>75</sup> At December 31 from Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Third Quarter and Nine Months Ended 31 December 2007.

**C.7 What other information is required to assess the current state of competition in the relevant markets?**

- 103 Telstra has provided information which is relevant to this question in Sections B, F, G and H of the Main Submission; and elsewhere in this response.

*Optus' connection protocols within its HFC network footprint:*

**C.8 Does Optus use the ULL or other declared fixed line services within areas where its HFC network is currently serviceable?**

- 104 Telstra is not in a position to answer this question, but, as discussed in the response to Question A.2, the inference from the publicly available data is that SingTel Optus must be using regulated access services to connect premises which would be treated by a reasonable cable operator as serviceable:
- (a) a significant proportion of the 36% (or more) of premises SingTel Optus treats as unserviceable can be feasibly serviced by HFC; and
  - (b) SingTel Optus is using ULLS in ESAs which have a low proportion of MDUs and difficult to serve SDUs, which suggests that SingTel Optus is using ULLS in the pool of 64% of homes it otherwise regards as serviceable.
- 105 Telstra has provided further information which is relevant to this question in Sections D and E of the Main Submission.

**C.9 How does Optus assess whether to connect a customer to its HFC network or to an access-based service on Telstra's fixed line network?**

- 106 As discussed in the response to Question A.4, SingTel Optus' decision seems to be driven principally by a commercial strategy of dual sourcing, and not by technical constraints.
- 107 See also response to Question A.2.
- 108 Telstra has provided further information which is relevant to this question in Sections D and E of the Main Submission.

*What would happen if the exemption application was granted; that is, what would happen if Optus could not access the specified declared fixed line services:*

**C.10 Would competition in downstream retail markets for relevant services be effective?**

- 109 If the exemption application is granted, competition in retail markets will continue to be effective, and will be more effective than if the exemption were not granted.
- 110 The granting of the exemption would provide a strong incentive for SingTel Optus to compete by way of infrastructure competition – which is widely recognised as “first-best”

competition.<sup>76</sup> Intermodal competition, in particular, may accelerate competition for higher speed broadband services. If SingTel Optus is forced to break out of the grip of substantially dual sourcing within its HFC network footprint, which has the purpose or effect of holding broadband speeds on cable to the same level as ULLS, it may follow overseas cable operators and seek to open a clear “speed gap” between copper and cable: for example, Virgin Media has announced an upgrade of its cable network to 50Mbps, which will put to proof BT’s assertion that customers do not want services with speeds of more than 8-10Mbps.

- 111 If the exemption is granted, SingTel Optus would invest in a customer drop to support the first-in service, with a strong incentive to provide additional services down the same pipe into the home to increase ARPU. This would promote competition across the full range of services (telephony, broadband and pay TV). The option of capital avoidance via ULL, however, robs Australian consumers of the scope and depth of competition this would provide.
- 112 In particular, this exemption would promote competition in the market in which retail pay TV services are offered. Presently, Optus focuses its retail offers on ‘double-play’ (telephony plus broadband) because it can provide these services via ULL with virtually no capital outlay. As a result, the third-in service – pay TV – is justified only if it can bear the entire capex of the customer drop. This appears to explain why SingTel Optus does not look to pay TV as a key driver of penetration, in the way that overseas cablecos do.
- 113 If SingTel Optus chooses to offer a cable-based wholesale service, the benefits of inter-platform competition also will be seen upstream. As SingTel Optus already has a substantial wholesale business in the HFC network areas, Telstra considers that SingTel Optus is likely to continue to participate in the wholesale market for broadband services by offering a wholesale product over its HFC network. Indeed, one of the justifications commonly given for the ladder of investment is that regulated access provides the access seeker with the opportunity to build up a significant customer base which can then be shifted to its own infrastructure, thereby reducing the barriers to entry. This should apply as much at the wholesale level as the retail level.
- 114 No current or future downstream retail competitor will be foreclosed from supplying wholesale or retail customers in the exemption area as a result of this decision. One or more ULLS-based operators may enter to try to pick up the SingTel Optus retail and wholesale ULLS-based business.
- 115 Telstra has provided further information which is relevant to this question in Section G of the Main Submission.

**C.11 Would Optus further invest in its own HFC network to provide services that are equivalent (or superior) to those provided by Telstra over its fixed line network?**

- 116 The Harris Report sets out the costs set out associated with the upgrading of the SingTel Optus HFC network to provide services which would otherwise be provided using ULL. Examples of these are set out in Table 2 below. In general, the evidence presented by Harris was that there were no current SingTel Optus services that used the Telstra fixed line network that could not be supported using the SingTel Optus HFC network. Further, those services could readily compete with Telstra fixed line services. This is also set out in Table 2 below<sup>77</sup>.

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<sup>76</sup> See Section B of Schedule A to Telstra’s Application for exemption from the standard access obligations in respect of the SingTel Optus HFC network, dated 17 December 2007.

<sup>77</sup> In addition to the options shown here, SingTel Optus could also seek commercial access to ULLS inside the exemption areas, or provide wireless broadband using its 3G/HSPA service.

Telstra service	SingTel Optus current	SingTel Optus with exemption	Competitive position of SingTel Optus
PSTN services based on local loop (business and residential)	PSTN services based on HFC and ULL	PSTN services based on HFC (in exemption areas) and ULL (on regulated terms outside of exemption areas)	SingTel Optus offering is a substitute for the Telstra offering and competitive
Broadband services using ADSL, HFC and wireless (business and residential)	Broadband services using ADSL over ULL (business and residential), HFC (residential only) and wireless	Broadband services using ADSL over ULL (business and residential on regulated terms outside of exemption areas), HFC (business and residential in exemption areas) and wireless	SingTel Optus offering is a substitute for the Telstra offering and competitive
Business DSL services	Business SHDSL services using ULL	Symmetric business services based on HFC (in exemption areas) and ULL (on regulated terms outside of exemption areas)	SingTel Optus offering is a substitute for the Telstra offering and competitive
Business Ethernet services using fibre	Business Ethernet services using fibre	Business Ethernet services using fibre or HFC network after upgrade	SingTel Optus has the potential to introduce new services based on its competitive offering

**Table 2 – Fixed line and HFC services**

117 Telstra has provided further information which is relevant to this question in Sections B and G of the Main Submission. See also the answer to Question C.10 above.

**C.12 If so, would these services provide a meaningful constraint on the pricing of Telstra's fixed line services?**

118 SingTel Optus' ability to compete would not be harmed by this exemption. As set out in the response to Question C.4, SingTel Optus' Fusion bundles, including those offered on SingTel Optus HFC, already provide a price constraint on Telstra retail pricing.

119 In considering meaningful constraints on Telstra's pricing of fixed line services if the exemption was granted, it would be necessary to consider not only SingTel Optus' equivalent services, but also the additional services which would compete with Telstra offerings, for example, the increased potential for competing IP based services. If SingTel Optus follows the lead of overseas cable operators, it will upgrade its current dated cable telephony technology to VoB, which will substantially reduce its cost base and support keener telephony pricing.

120 As set out in Telstra's answer to Question C.10, if SingTel Optus exploited its HFC network to its full potential in the exemption zones, competition for downstream retail broadband services also would increase whether SingTel Optus offered a wholesale product or not.

121 Even if SingTel Optus was slow to exploit its HFC network to its full potential following any decision to grant the exemption, pricing models of existing competitors in the retail

market remain important constraints on Telstra's pricing of fixed line services. If the exemption is granted, the continued availability of upstream regulated access pricing to all other access seekers will continue to constrain Telstra downstream retail pricing.

- 122 Telstra has provided further information which is relevant to this question in Sections B, E and G of the Main Submission.

*Overall size of the addressable market:*

**C.13 Is the size of addressable market in the proposed exemption area large enough to allow Optus to achieve sufficient economies of scale or density to provide effective infrastructure-based competition to Telstra's fixed line network?**

- 123 The Commission's question is more relevant to an assessment of the prospects of potential entry by a new network builder. The SingTel Optus HFC network already exists and competition from that network is a current reality within the existing footprint area.
- 124 There is nothing to suggest that, even subject to the current self imposed constraints, the SingTel Optus HFC network is not economically viable, as addressed in Section D.8 of the Main Submission. Moreover:
- (a) SingTel Optus is experiencing rapid growth in HFC broadband connections;
  - (b) on the publicly available data, the SingTel Optus HFC network may account for more broadband services in its pool of serviceable homes than the combination of Telstra cable and Telstra wholesale or retail DSL services. At the very least, SingTel Optus cable modem services have a high market share in the 64% of homes deemed serviceable by the HFC network;
  - (c) even though SingTel Optus treats about 6 times as many homes as unserviceable compared to overseas cable operators, it would still be the 11<sup>th</sup> largest cable operator in the US and is broadly equivalent to Canada's main cable company, Rogers; and
  - (d) the SingTel Optus HFC network cannot be viewed in isolation. SingTel Optus is likely to realise significant economies across its fixed and mobile networks, including in backhaul, billing systems and customer care.
- 125 This also suggests that SingTel Optus **already** has sufficient scale to be an effective competitor within cabled areas.
- 126 The additional incremental investment which would be required as a result of the exemption is limited: that is, individual subscriber drops connecting premises. This investment will only improve the SingTel Optus HFC network economics by increasing the customer base across which the (sunk) fixed investment is spread, reducing its per unit costs. Lifting the number of serviceable homes from 64% to the overseas levels of 90+% should substantially improve SingTel Optus' ability to fully exploit economies of scale and density.
- 127 If, despite the above evidence, SingTel Optus asserts that its HFC network is not economically viable or does not have sufficient scale to effectively compete, the



Commission should require SingTel Optus to provide sufficient information to allow the Commission to verify its claims, including:

- (a) information from SingTel Optus' management accounts on the revenue and costs associated with its HFC network over the last 3 years;
  - (b) SingTel Optus' unit costs on its HFC network and its unit costs when using ULLS in cabled areas; and
  - (c) SingTel Optus' capital expenditure on its HFC network over the last 5 years.
- 128 Telstra has provided further information which is relevant to this question in Sections B, C, E and G of the Main Submission.

*Nature and extent of barriers to entry:*

**C.14 Are Telstra's statements about the ease of upgrading Optus' HFC network accurate? Are Telstra's statements about the small incremental costs associated with servicing more homes accurate?**

- 129 The Harris Report provides cost estimates based on overseas experience. If SingTel Optus believes these estimates understate its costs, it should be required to provide alternative costings supported by appropriate management accounts and vendor data.
- 130 Telstra has provided further information which is relevant to this question in Attachment 1 of the Main Submission.

**C.15 What, if any, barriers to entry, expansion and exit exist in relation to HFC-based network deployment?**

- 131 Again, it is important to note that the exemption proposed by Telstra does not require any expansion of the existing HFC network footprint. That is, the exemption does not require new rollout of HFC distribution cable by SingTel Optus. Rather, Telstra is merely seeking an exemption that removes the disincentive SingTel Optus currently has to use the infrastructure that it has already built to provide services to those premises which it has identified as passing.
- 132 The exemption creates no barriers for SingTel Optus and its HFC network. The barrier to entry to service any premises is the cost of a drop. The exit cost is the cost of maintaining an unused drop. Expansion of the number of premises served is represented by a small capital expenditure which cannot be said to be a barrier as it has a sound business case. SingTel Optus is not starting from scratch. What it would be incentivised to do under this exemption would be amply assisted by extensive synergies with existing services, back-end systems, and supporting arrangements and relationships.
- 133 Telstra has provided further information which is relevant to this question in Section G of the Main Submission.

*Dynamic characteristics of the relevant markets:***C.16 If the ACCC grants the exemption application, for what period should the ACCC grant the exemption?**

- 134 Telstra believes that the exemption should be granted indefinitely in order to send the right signals to SingTel Optus and to investors generally. For example, SingTel Optus may continue to hold back cable investment and upgrade if it believes that regulated access will soon be restored. (See also the answer to Question C.17 below.)
- 135 Telstra has provided further information which is relevant to this question in Section F of the Main Submission.

**C.17 If the ACCC grants the exemption application, should the exemption take effect immediately, or should it be deferred?**

- 136 The Commission's Discussion Paper fails to mention that Telstra's application includes a 12 month transition period. This is an important element of the conservative approach which Telstra has taken to the requested exemption.
- 137 This transition period will provide SingTel Optus with the opportunity to make any network upgrades it wants and for an orderly transition of retail and wholesale customers. It also will provide wholesale customers of SingTel Optus with an opportunity to consider their own options and make adjustments accordingly.
- 138 Telstra has proposed an initial 6 month transition period in respect of premises which have less than 5 lines, which is based on the CSG definitions and is a reasonable proxy for residential premises. Business and MDUs with more than 5 lines would have an additional 6 months transition (12 months in all). As SingTel Optus originally deployed the entire HFC network in well under 3 years, this seems a conservative period.
- 139 The overseas evidence clearly shows that entrants will only move to deploy their own facilities if faced with a "hard stop" (that is, a firm date on which access will be withdrawn). The effect of a hard stop on investment by entrants can be seen from the experience of the withdrawal of ULLS in Hong Kong and the US. If the commencement of the withdrawal is subject to conditional triggers or to further reassessment, entrants will delay their capital investment as long as possible, in the hope that the withdrawal will not be triggered.
- 140 Telstra has provided further information which is relevant to this question in Section F of the Main Submission.

**C.18 What conditions (if any) should be placed on the granting of an exemption order?**

- 141 Telstra's proposed transition period adequately deals with reasonable concerns SingTel Optus may have about getting ready for the access service withdrawal. Separate or additional conditions are unnecessary.
- 142 As Telstra has said in relation to the other exemption applications, it is prepared to discuss migration planning with SingTel Optus and the Commission.

- 143 As noted in response to Question C.5, any conditionality which detracts from a “hard stop” for regulated access will undermine SingTel Optus’ incentives to gear up its HFC network.
- 144 Telstra has provided information which is relevant to this question in Section F of the Main Submission.

## D Any-to-any connectivity

### D.1 Would granting the exemption application have any effect on any-to-any connectivity?

- 145 Although it would be possible for SingTel Optus to use ULLS to provide a wider range of services, it is Telstra’s understanding that the use of ULLS by SingTel Optus is restricted to the supply of broadband services and telephony. As a result, nothing in the proposed exemption would adversely impact on “any to any” connectivity. Telstra uses copper pairs to provide a number of services including traffic light control, burglar alarm monitoring and ISDN services, which, as set out in G9 Special Access Undertaking submissions,<sup>78</sup> would have been disrupted by the G9 FTTN proposal.
- 146 Telstra has provided further information which is relevant to this question in Section G of the Main Submission.

## E Efficient use of and investment in infrastructure

*Whether the granting of the exemption would encourage **efficient use of and investment in infrastructure**:*

### E.1 Would granting the exemption application have a significant effect on the efficient use of infrastructure by which listed services are provided?

- 147 Granting this exemption will encourage SingTel Optus to use its HFC infrastructure more efficiently. Currently the network lies unused past more than one-third of homes in its footprint, an extraordinarily large proportion by international standards, while SingTel Optus uses wholesale access from Telstra to service homes. This does not promote efficient competition, because the “first-best” form of competition is compromised:
- (a) dual sourcing by SingTel Optus may not be consistent with productive efficiency, as Optus can use Telstra’s average-priced services even where SingTel Optus’ costs are lower than the costs Telstra actually incurs; and
  - (b) even if it were consistent with productive efficiency, it comes at the expense of dynamic efficiencies because there are wider social benefits of infrastructure competition that are not captured by SingTel Optus itself, and will therefore not influence its decisions about which network to use. In any event, the full social benefits of competition will never be realised where productive efficiency using existing assets is promoted ahead of dynamic efficiency. This is particularly so in technologically dynamic industries such as telecommunications.

(See arguments set out more fully in Section E.3 of the Main Submission.)

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<sup>78</sup>

Telstra Corporation Limited “Submission in response to the Commission’s Discussion Paper ‘FANOC Special Access Undertaking in relation to the Broadband Access Service - Discussion Paper’” Public Version 27 August 2007

- 148 More robust infrastructure competition will be felt in the downstream markets for all services (including telephony, broadband and pay TV) that are offered over that infrastructure.
- 149 Telstra has provided further information which is relevant to this question in Section G of the Main Submission.

## **E.2 Would granting the exemption significantly affect Telstra's incentives to invest in its own infrastructure?**

- 150 Telstra will have greater incentive to invest in its own infrastructure if the exemption is granted.
- 151 First, as SingTel Optus becomes a more robust rival by means of its own infrastructure (which the exemption gives it the incentive to do) Telstra will be required to innovate in order to compete. For example, it may need to implement technology upgrades to offer higher speeds or more sophisticated services to compete against improved services from SingTel Optus. The more Telstra is matched by its rivals, the more it will innovate to differentiate itself to retain and attract customers<sup>79</sup>. For example, this effect is likely to play out in the UK, where Virgin has announced that 50Mbps broadband will soon be available to 70% of its cable footprint. BT, which offers only 8-10 Mbps, will likely have to respond with higher speed offerings.<sup>80</sup>
- 152 Second, Telstra would secure greater downstream benefits from such upgrades, because it would not be required to share them, and would thus avoid the negative externalities resulting from competitive spillover of its innovations. For example, if Telstra upgraded its network in a way that enabled more sophisticated applications and services to be offered, then granting access to SingTel Optus could result in Telstra achieving little or no downstream benefit from its investment in innovation. On the other hand, if the exemption were granted and SingTel Optus could only achieve those benefits by itself investing in its own network, then Telstra would have a greater return from, and incentive to make, those upgrades. (While this effect would apply only in respect of Optus – since other competitors would retain the benefit of Telstra's wholesale access obligations – this could nevertheless have a significant impact).
- 153 Because the exemption is likely to result in SingTel Optus upgrading its infrastructure (for example, to offer improved cable telephony and broadband services), Telstra will inevitably upgrade its infrastructure to similarly offer better, faster services.
- 154 Telstra has provided further information which is relevant to this question in Sections B and G of the Main Submission.

## **E.3 Would granting the exemption significantly affect Optus' incentives to invest in its own infrastructure?**

- 155 If the exemption is granted, SingTel Optus will lose its dual sourcing option and be required to invest more in its own infrastructure in order to retain its customers. Its incentive to retain its (currently) access-based customers in the exemption areas will be amplified to the extent that there are cross-product impacts upon its mobile business.

<sup>79</sup> See for example Aghion P and R. Griffith (2005) Competition and Innovation, Zeuthen Lectures, MIT Press.

<sup>80</sup> See <http://allyours.virginmedia.com/sites/hatetowait/index.html>, and Virgin Media Press Release, Virgin Media Boosts Britain's Broadband Speeds, 28 January 2008, available at: [http://pressoffice.virginmedia.com/phoenix.zhtml?c=205406&p=irol-newsArticle\\_print&ID=1100403&highlight=](http://pressoffice.virginmedia.com/phoenix.zhtml?c=205406&p=irol-newsArticle_print&ID=1100403&highlight=).

The likely outcome would be increased investment in customer connections, upgraded platforms (such as VoB) and higher uptake of bundled services including triple-play.

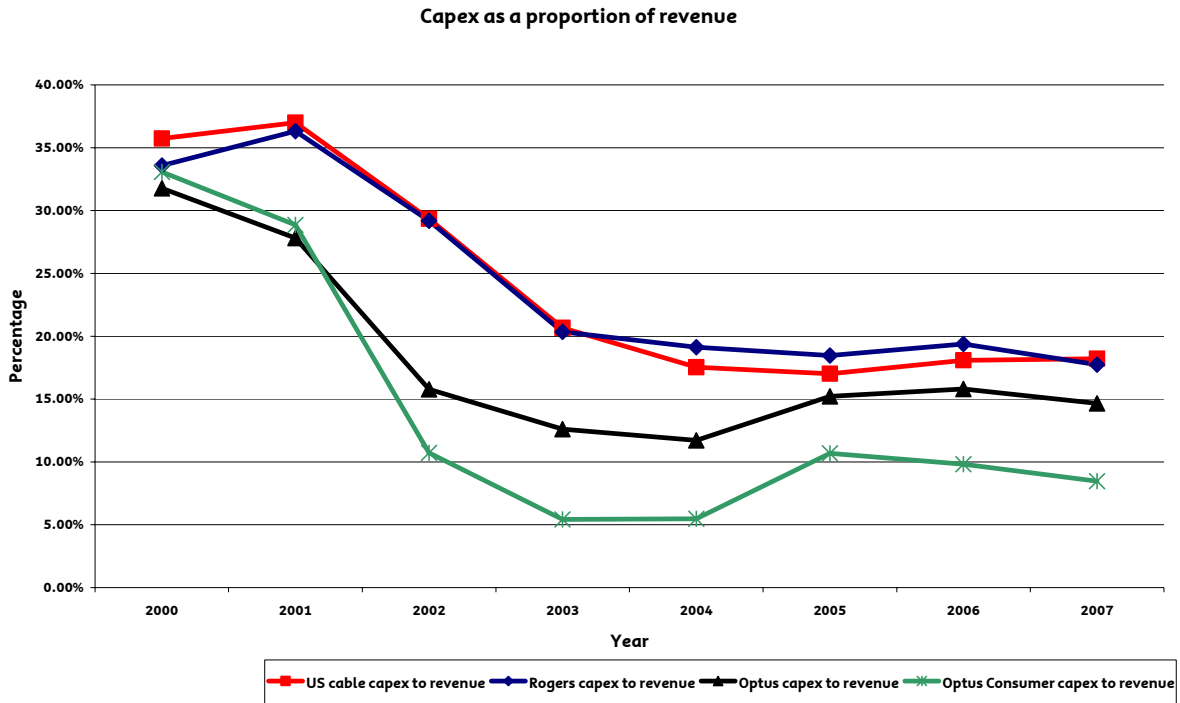
- 156 Granting the exemption would also likely stimulate investment in the HFC infrastructure for pay TV purposes. Presently, triple-play is not actively marketed in SingTel Optus' above-the-line marketing activity, which instead focuses on double-play services that can be entirely delivered over ULL without capital outlay. It follows that pay TV will not follow as a third-in service unless it can bear the entire capital outlay of connecting that site to the cable (eg a new customer drop).
- 157 Absent ULLS, however, if SingTel Optus connected a customer to its cable for any individual service its incentive would be to provide as many concurrent services down that connection in order to maximise ARPU and quickly repay the cost of the customer drop. As more and more cable connections were made, and more services were provided, then back-end investments in new platforms and systems would become increasingly attractive because the cost of them could be spread over a larger number of users. We refer to the Harris Report for information regarding the relatively modest cost of delivering services in line with recent technological developments using HFC technology.
- 158 The investment in 3G networks and services in Australia illustrates the kind of effect that lack of wholesale access can have on the investment strategies of competing platforms. In the absence of roaming or MVNO obligations, 3G network operators are aggressively competing through investment in greater coverage and innovation. Granting the exemption will unleash similar incentives upon the owners of fixed networks in the relevant areas.
- 159 In addition, see Telstra's response to Questions C.10 and C.11 above.
- 160 Telstra has provided further information which is relevant to this question in Sections B, C, E and G of the Main Submission.

#### **E.4 Has Optus' access to the declared services within the HFC footprint discouraged its investment in its HFC network?**

- 161 It is clear that SingTel Optus has under-invested in its HFC relative to other cable operators. The graph presented in Figure 3 shows the proportion of revenue used in capital expenditure for 4 cases:
- (a) the US cable industry derived by taking annual revenue from residential subscribers for calendar years divided by the expenditure on cable networks (but not back office systems). This data is sourced from SNL Kagan and is available at the National Cable and Telecommunications Association ([www.ncta.com](http://www.ncta.com));
  - (b) Rogers, a Canadian based communications business which has a mixture of mobile, cable and media businesses and which competes with an incumbent telecommunications company. The data set out in the graph were taken from annual reports on the Rogers website (<http://phx.corporate-ir.net/phoenix.zhtml?c=80028&p=irol-reportsOther>);
  - (c) SingTel Optus derived by taking the annualised figure at 31 March in the year after the year set out in the graph using financial reports for 2002 to 3Q 2008 downloaded from the SingTel website ([www.singtel.com.sg](http://www.singtel.com.sg)). The 2007 figure is taken from the report to December 2007; and

(d) the revenue and capex for SingTel Optus' Consumer and Multimedia Division (subsequently the Consumer and SMB Division) which is responsible for a HFC investment.

162 There is a clear trend of under-investment in cable by SingTel Optus compared with the US industry and SingTel Optus as a whole. However, the capex is not going simply to the SingTel Optus Mobile business but significantly to the business group and on IT.



**Figure 3 – Relative capital expenditure of firms**

163 Telstra has provided further information which is relevant to this question in Sections C, D and E of the Main Submission; and in Section C of this response.

**E.5 Would granting the exemption application be likely to encourage investment in alternative infrastructure (whether it be Optus' HFC network or Optus' 3G network) by removing the scope for Optus' reliance on the declared services?**

164 As explained in response to Question E.3, SingTel Optus' incentives to invest in its own infrastructure would be far greater if the exemption were granted.

165 It might be argued that this exemption would discourage build because investors would expect access rights to dry up immediately an area was covered. If that were the case, though, then there can be no justification for access because the infrastructure is replicable but for the existence of regulation – in which case the best approach might well be to deregulate in *advance* of the build as the best means of ensuring that such build occurs.

166 Telstra has provided further information relevant to this question in Section E of the Main Submission.

- **Would such an investment be economically efficient?**

- 167 The incremental investment which SingTel Optus would be required to make as a result of the exemption being granted is marginal and must be kept in perspective. Most of the investment is already made (past the 2.2 million homes). Many customer drops and some backbone cabling is already physically in place. The overbuild between SingTel Optus and Telstra HFC networks has already occurred (even assuming that once was an inhibiting factor, which overseas evidence on third-in networks suggests is not the case). The investment in the main HFC network is sunk.
- 168 There may or may not be immediate productive efficiency losses; but in any event the dynamic efficiency gains would outweigh them as the right investment signals would be sent, and that “squatting” practices on lower rungs of the ladder will be discouraged.
- 169 The ladder of investment does not apply a cost/benefit “gate” as a condition of moving from one rung to the next. The ladder is built on the premise that the end state of full facilities based competition is to the long term benefit of end users. Otherwise, why is the ladder put there by regulators for entrants to climb?
- 170 Inevitably, there will be more costs and potentially disruption to customers as the entrant progressively builds closer to the customer, replacing more of the access provider’s technology as it goes. At the final stage of building an alternative link to the customer premises, the entrant will have to deploy a drop and, as the entrant is deploying a different technology to the incumbent (otherwise the benefits of infrastructure competition are reduced), the customer may have to replace CPE (eg swap a DSL modem for a cable modem).
- 171 Telstra has provided further information relevant to this question in Section G of the Main Submission.

- **What implications would Telstra’s exemption application have on investment by third parties other than SingTel Optus, if any?**

- 172 As other access seekers would have continued access to regulated wholesale services, none of their existing investments would be stranded. Since the exemption application was lodged, additional DSLAM entry has occurred. There is no reason for that trend not to continue if the exemption is granted.
- 173 The opportunities for other access seekers may increase as a result of the exemption. If SingTel Optus does not decide to offer a cable-based wholesale product, another DSLAM competitor will have the opportunity to pick up current SingTel Optus wholesale customers.
- 174 More intensive competition from the SingTel Optus HFC network may spur additional investment and innovation from DSLAM-based competitors as they seek to match the upgraded SingTel Optus cable offerings, such as on broadband speed.
- 175 It remains a mystery as to why the G9 consortium, led by SingTel Optus, does not utilise the SingTel Optus HFC network as the platform for its NGN, rather than seeking to use Telstra sub-loops in the areas in which that network is deployed. If SingTel Optus has the incentive to upgrade its HFC, it may well be that G9 will reconsider this issue and invest in that network. The result could be competing NGNs past a third or more of Australian homes, rather than the NGN monopoly which would result if G9 took over the Telstra

copper network. Telstra has provided further information which is relevant to this question in Sections C, D and E of the Main Submission.

*Information regarding the houses passed by the Optus HFC network which are not currently serviceable:*

**E.6 Is it correct, as Telstra claims, that Optus treats as unserviceable approximately 36 per cent of homes passed by the Optus HFC network?**

176 SingTel Optus may in fact service more than the 1.4 million homes because it has not updated its numbers. That is, the serviceable homes figure may be a “floating” 1.4 million homes. Alternatively, it may still service only 1.4 million homes among a cable footprint that has organically grown beyond the 2.2 million figure, in which case *more than 36%* of homes are being treated as unserviceable (see Telstra’s response to Question A.3 above). Optus should be required to clarify the true position.

177 Telstra has provided further information relevant to this question in Sections C, D and E of the Main Submission.

**E.7 If so, what technical and economic factors should the ACCC take into account in assessing whether a particular type of end-user premises is “unserviceable”?**

178 It is not necessary for the Commission to analyse whether it is feasible for SingTel Optus to serve every (or every type of) customer premises in the relevant market using its HFC network. The Commission should take a higher level view of SingTel Optus’ ability to compete across the footprint of its HFC network. As overseas regulators have consistently recognised, a cable operator can provide an effective competitive constraint on an incumbent without being able to serve every home which the incumbent services. The competitive dynamics in the market will be affected if the cable operator has sufficient “critical mass”. Ofcom counts the Virgin Media network if it passes not less than 65% of homes in an exchange area, which is close to SingTel Optus’ artificially depressed figure of “passed and serviceable”.

179 Additionally, the incumbent will have little or no practical ability to price discriminate at such a fine grain level. The incumbent will not know for sure which premises the cable operator considers to be unserviceable. Moreover, if Telstra sought to increase prices to those premises, that would merely increase SingTel Optus’ incentive to make them “passed and serviceable”.

180 Further, in this case, Telstra’s downstream pricing will be constrained by the upstream regulated price which applies to all other access seekers. This is an averaged price across all premises, including between SDUs and MDUs.

181 Telstra has provided further information relevant to this question in Sections C, D and E of the Main Submission.

- **What proportion of homes passed by the SingTel Optus HFC network are not serviceable because they are multi dwelling units (MDUs)?**

182 SingTel Optus can and should disclose this information to the Commission. See Telstra’s response to Question A.3.



- **What are the factors that influence SingTel Optus' decision whether or not to connect MDUs to its HFC network?**

183 Telstra believes that aside from a small proportion of homes which are too technically difficult to service, SingTel Optus' decision is driven by its commercial strategy of dual sourcing. As discussed in the Introduction, this dual sourcing seems to be driven in part by a desire to conserve capex (effectively, to withhold investment). Granting this exemption will remove SingTel Optus' option of regulated access in its cabled areas, and re-create incentives to invest.

184 See Telstra's response to Questions A.3 and A.4. Telstra has also provided further information relevant to this question in Sections D and E of the Main Submission.

- **What are the costs associated with upgrading the HFC network to connect MDUs?**

185 Telstra has provided some cost modelling in Attachment 1 to its Main Submission. If SingTel Optus disagrees with these estimates, it should provide its own costs supported by appropriate cost and revenue data from its management accounts. See also Telstra's response to Question A.5.

- **What are the costs of servicing these end-users via ULL?**

186 Only SingTel Optus can provide information on its costs of servicing MDUs via ULLS, SingTel Optus can and should provide this information.

- **To what extent would HFC provision enable SingTel Optus greater scope to compete across price/quality/package dimensions of supply, than it would have via ULL-based provision?**

187 Network competition is superior to access-based competition because it enables independent rivalry across more functional segments and marketing dimensions, and provides greater incentives to innovate. If SingTel Optus was to compete robustly using its HFC, end users would benefit by these mechanisms.

188 SingTel Optus would have the incentive to replace its existing dated cable telephony technology with a high quality, access dependent voice over broadband offering. As set out in the Main Submission, overseas cable operators, such as in those Canada, have rapidly gained substantial market share offering VoB telephony.

189 If SingTel Optus was forced to break out of the grip of dual sourcing which induces it homogenise its cable and ULLS broadband products, it would have an incentive to upgrade its cable network to open a clear "speed gap" between DSL and cable broadband services. The higher speeds on the SingTel Optus HFC, including in the upchannel, would create more scope for SingTel Optus to offer more innovative applications.

190 Upgrading the SingTel Optus HFC to DOCSIS 3 would allow SingTel Optus to expand the target base of the network beyond residential customers to SMEs and suburban premises of large corporates.

191 SingTel Optus may be more likely to pursue triple play service offerings rather than double play, for the reasons discussed in the responses to Questions B.2, C.3 and C.10.

- 192 Telstra has provided further information relevant to this question in Sections C, D and E of the Main Submission.

*Planned infrastructure deployment or technical improvements to HFC networks in the proposed exemption area:*

**E.8 Are there any investments being planned in the proposed exemption area to be completed by the end of 2008? What is the nature of those investments?**

- 193 Around the time Telstra lodged its exemption application, SingTel Optus announced a modest upgrade in the speed of its HFC network to 20 Mbps, which is still slower than the speeds on the Telstra network and much slower than the speeds on overseas cable networks (eg Virgin Media's 50 Mbps). This upgrade allowed SingTel Optus to ensure symmetry in speeds offered on ULLS and HFC, and thus the offering of homogeneous Fusion bundles across copper and cable.
- 194 Telstra believes that granting the exemption will bring on further upgrades to the SingTel Optus network and help accelerate the "speed race" across the market between all competitors.
- 195 It is also important to bear in mind that:
- (a) the exemption application does not require SingTel Optus to invest in expanding the HFC network into new areas; and
  - (b) ongoing wireless investments (including 3G/HSPA) are also being planned and made in these areas. In the case of SingTel Optus, this will provide a further means by which it can directly connect its customers via its own infrastructure in the absence of regulated access.

*Technical and economic issues related to HFC network upgrades in terms of increased capabilities of an existing footprint (technological upgrade) and/or expansion of an existing footprint (incremental deployment):*

**E.9 What scale is required in an area, such as an ESA, to justify a HFC technological upgrade/incremental deployment? What other factors would a provider consider when deciding to undertake a technological upgrade or commence an incremental deployment of a HFC network?**

- 196 Because the architecture of the HFC is significantly different from the architecture of the Telstra PSTN, it is not clear that the ESA is a suitable area in which to perform a cost benefit analysis on incremental deployment.
- 197 It is Telstra's understanding that the SingTel Optus HFC network is based on three major exchanges in Sydney, two in Melbourne and one in Brisbane. Any cost-benefit analysis on incremental services would logically occur at the level of the area served by each of these six exchanges, rather than on an ESA by ESA basis.
- 198 It is important to stress again, that the incremental deployment proposed under Telstra's exemption does not require an extension of the SingTel Optus HFC network. Evidence of SingTel Optus' own HFC subscription levels, and from overseas cable operators, suggest

that its existing network is economically feasible. In any event, its network investment is largely sunk.

- 199 The main incremental cost would be to deploy drops within a particular HFC network coverage area. Clearly there are some fixed costs associated with the main drop to MDUs and reticulation of HFC services within MDUs. However, as the Harris Report indicates, these are relatively low compared to the expected revenue for services.
- 200 Some overseas networks of similar size to the SingTel Optus network have upgraded to DOCSIS 3. There is a degree of granularity available in that it would be possible to upgrade only those nodes required to offer business services within the SingTel Optus HFC network footprint. That is, it would be possible overlay business services on the existing residential services provided by SingTel Optus only in those areas where there was business demand. This is referred to in the Harris Report.<sup>81</sup>
- 201 Telstra has provided further information relevant to this question in Section D of the Main Submission.

#### **E.10 What are the nature and extent of costs associated with HFC-based upgrades or deployment? Are they as low as Telstra suggests?**

- 202 Telstra refers the Commission to the cost information that it provided in support of the original exemption application, set out in Attachment 1 to the Main Submission.

#### **E.11 Are there any other physical or technical constraints associated with an HFC upgrade?**

- 203 Telstra does not consider that there are any constraints, other than an unwillingness to invest capital, which would limit SingTel Optus in expanding its HFC network. Telstra also notes that there are no scale issues that adversely affect SingTel Optus. As stated in the Executive Summary of the Main Submission, SingTel Optus as a multiple services operator (MSO) would rank as 11<sup>th</sup> largest in the USA as shown in Table 3.<sup>82</sup>

Rank	MSO	Subscribers
8	Suddenlink Communications	1,290,000
9	Insight Communications	722,000
10	CableOne	701,900
11	WideOpenWest	360,700
12	RCN Corp.	357,000
13	Bresnan Communications	295,200
14	Service Electric	288,200

**Table 3 – MSOs ranked 8 – 14 in the USA**

- 204 Telstra has provided further information relevant to this question in Section D of the Main Submission.

<sup>81</sup> Report by Michael G. Harris dated 12 December 2007 at paragraph 3.18.

<sup>82</sup> National Cable Television Association at <http://www.ncta.com/Statistic/Statistic/Top25MSOs.aspx>.

## ATTACHMENT A

### List of Terms

Term	Definition
ACIF	Australian Communications Industry Forum (now known as the Communications Alliance)
ADSL	Asymmetric Digital Subscriber Line
ADSL 2+	Asymmetric Digital Subscriber Line 2+
CLLS	Conditioned Local Loop Service
CPE	Customer Premises Equipment
DSL	Digital Subscriber Line
DSLAMs	Digital Subscriber Line Access Multiplexer
ESA	Exchange Serving Area
FTTN	Fibre To The Node
HFC	Hybrid Fibre Coaxial
HSDPA	High Speed Downlink Packet Access
HSPA	High Speed Packet Access
ISDN	Integrated Subscriber Digital Network
LCS	Local Carriage Service
LTIE	Long Term Interests of End User
MDU	Multiple Dwelling Unit
NGN	Next Generation Network
PSTN	Public Switched Telephone Network
PSTN OA	PSTN Originating Access Service
RKRs	Record Keeping and Reporting Rules
SDU	Single Dwelling Unit
SME	Small Medium Enterprise
SOHO	Small Office/Home Office
SSNIP	Small but Significant and Non-transitory Increase in Price
ULL	Unconditioned Local Loop
ULLS	Unconditioned Local Loop Service
VoB	Voice over Broadband
WLR	Wholesale Line Rental
x DSL	Refers to all types of Digital Subscriber Line

## **Schedule 1 - Confidential Data**

**[This Schedule is commercial in confidence]**