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Optus Submission

on

ACCC Draft Decision on ULLS Monthly charge undertaking

Public version

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1. Introduction

1.1 This submission sets out Optus' comments on the ACCC's draft determination on ULLS.

1.2 Optus supports the ACCC's draft decision to reject Telstra's undertaking which clearly proposes prices that are well above cost. Optus submits that Telstra has fallen well short of the requirement to "affirmatively prove" that its undertaking is reasonable.

2. Network cost component

2.1 The ACCC has expressed strong reservations with Telstra's claimed network cost component and concluded that, to the extent prices are based on Telstra's claimed costs, Telstra's ULLS prices;

(a) Are unlikely to promote the LTIE:

(b) Will result in Telstra recovering more than cost; and

(c) Will limit access seekers ability to compete.

2.2 Optus shares these concerns and reiterates is long-held view that Telstra's costs estimates are not reasonable and should not be used for the purpose of setting access prices.

PIE II model

2.3 Optus notes that the ACCC's draft decision identifies a number of fundamental concerns with Telstra's Pie II Model.

2.4 This is consistent with Optus' own analysis of PIE II as outlined in its submission to the draft discussion paper. It is worth noting that there are now at least 3 independent expert reports on PIE II; n/e/r/a for Optus; Marsden Jacobs and Associates for the CCC; and Analysys for the ACCC. In contrast to the report of Telstra's expert, Bridger Mitchell, each of these reports is highly critical of the PIE II model and cautions the ACCC against relying on output from PIE II for setting access prices.

2.5 The table below provides a summary of the views expressed in these independent expert reports on key modelling assumptions used in the PIE II Model.

Modelling assumptions	n/e/r/a/	MJA	Analysys
Network Provisioning	• Over estimated. • Inappropriately seeks to recover costs associated with anticipated demand.	• Over estimated.	• Model unnecessarily overstates demand for some equipment resulting in higher charges
Operating and Maintenance Factors	• Significant risk that O&M factors are inefficient.	• Over states direct and indirect O&M factors.	• Significant risk of overstatement of O&M especially for long lived assets
Network Planning Costs	• Should not be included as likely to be already included in O&M. • Risk of double counting.	• Not relevant – should assume the network is in place • Common practice to include in O&M.	• Not reviewed
Trench Sharing	• Under estimates sharing in new estates, with third parties and with other Telstra services.	• Recommends using long-term equilibrium to increase sharing in the model.	• Under estimates ability to share. • Sharing between CAN and IEN understated.
Network Design (Rectilinear distances)	• Significant concerns about use of rectilinear distances • Overstates real distances and costs.	• Use of an uncorrected rectilinear distance factors likely to overstate rural costs.	• Use of rectilinear distances likely to overstate rural costs • Recommends use of clustering algorithm to improve DA design
Minimum Spanning Tree (MST)	• Use of MST not reasonable as it leads to inefficient use of copper and therefore overstates costs.	• Recommends correction factors be applied to MST results to ensure costs are optimal.	• MST likely to overstate trench lengths and overstate costs.
Technology	• Insufficient account taken of alternative radio/satellite technology to reduce costs associated with trenching/copper.	• PIE II cannot be regraded as a forward looking model based on best practice technology.	• Questions whether technology used represents Modern Equivalent asset. • Design rules do not reflect Telstra's practice nor least cost design rules.

2.6 The above summary represents a comprehensive weight of evidence against the reliability of the assumptions underpinning the output from the PIE II model.

2.7 Separate to the issue of whether PIE II provides a reasonable or robust estimate of costs is whether it represents a forward looking model. In its submission to the discussion paper Optus highlighted Telstra's network transformation plans as announced in its November 2005 Technology briefing. These plans were discussed in greater detail in Optus' separate submission to the ACCC on Telstra's PSTN and LCS undertaking, an extract of which is included in the Appendix to this submission.

2.8 This commentary is also highly relevant to the present undertaking. It is quite clear from the statements in Telstra's briefing that PIE II no longer represents a forward looking cost model and should not be used to set prices for ULLS.

Use of Historic and Current Cost Accounting Data

2.9 The ACCC has presented information drawn from Telstra's historic and current RAF accounts to assess the reasonableness of the output from PIE II. The data presented by the ACCC shows without any doubt that PIE II significantly overstates Telstra's network costs. This analysis indicates that had Telstra used its own RAF data to set ULLS prices then the network cost component from PIE II would be less than half that claimed by Telstra.

2.10 This is a very relevant and damning piece of analysis for Telstra. It supports the views presented by Optus and others that the PIE II model significantly overstates Telstra's cost. The output from PIE II quite clearly fails the "smell test" that a cost estimate for a network based on forward looking efficient design principles ought to be significantly lower than that based on historic cost with all its attendant inefficiencies. It also reinforces the view that the proposed access prices are significantly above those that would be reasonable or necessary to protect Telstra's legitimate business interests.

ULLS Price Averaging

2.11 The ACCC has concluded that the PIE II model is likely to overstate costs in urban areas due to its use of inappropriate rectilinear distances and engineering algorithms and the fact that the model does not take into account newer less costly technologies such as WiMAX.

2.12 These same concerns are reflected in n/e/r/a's analysis of the PIE II model. N/e/r/a notes that when it makes adjustments to the minimum spanning tree algorithm and uses a more efficient network design then, on the basis of these factors alone, it estimates that the unit costs within the rural network might be overstated by as much as 5-6% for the CAN and 15% for the conveyance network.

2.13 N/e/r/a also questions the appropriateness of the model's technology assumption that all regions in Australia will "*forever more be served by copper when it is likely that radio and satellite service would be superior. If Telstra continues to be compensated for the costs of copper in rural areas then it will have little incentive to replace it with lower cost alternatives in the long run*".

New costing approach required

2.14 Given the concerns expressed above with the PIE II Model, there is clearly a need to develop a new cost model. Such a model would need to be based upon

the prospective technology changes that will be implemented in the next 2 to 3 years.

2.15 The challenge for the ACCC is to develop a new model in the absence of detailed cost information from Telstra on its Next Generation Network plans. Developing a model that is robust, transparent, with industry consensus that is fit for purpose for setting access prices will require time. Nevertheless, such a model should be developed.

2.16 In the interim it would be reasonable for the ACCC to set prices using its network cost estimates from its model terms and conditions. This suggests a Band 2 network cost of around $12. Optus notes that such a cost estimate appears to be more consistent with the ACCC's estimate of Telstra's Historic costs of providing ULLS.

3. ULLS specific costs

Recovery of costs

3.1 As set out in its submission to the discussion paper Optus strongly supports the all/DSL lines approach for the recovery of Telstra's ULLS specific over the approach proposed by Telstra. As noted by the ACCC in its draft decision this approach is likely to better promote competition and investment in ULLS.

3.2 Whilst the adoption of the all/DSL lines approach will likely reduce the relative sensitivity of this component of the pricing to changes in the various input assumptions, there remain some obvious inefficiencies in Telstra's data which ought to be addressed.

3.3 Optus has provided additional information on a number of these issues below.

Telstra connection processes

3.4 There has been some debate about the efficiencies of Telstra's estimated costs associated with its front of house connections group. These costs are largely a function of Telstra's estimated staff handling time, with Telstra noting that it can only handle **c-i-c** connections per staff member per day. This in turn determines the number of staff Telstra needs to manage forecast calls into the group. Telstra has estimated the costs of this activity at **c-i-c** in 2006-07 rising to **c-i-c** in 2007-08.

3.5 Optus has assessed Telstra's claims against its own available data on customer handling times for related activities in the Optus customer care centres. We believe that Telstra ought to reasonably be able to handle **c-i-c** transactions per staff member per day, i.e. four times higher than the figure claimed by Telstra.

3.6 In developing the above estimate Optus has taken account of the activities Telstra has identified as being relevant to this group, including errors with orders, changes to cutover dates (including retargets and late withdrawal requests), order rejections, manual processing of cutover notifications, manually checking cable records and carrier escalations. We have also taken account of relevant overheads such as:

(a) Sick leave;

(b) Annual leave;

(c) Training; and

(d) Log in hours vs 'at work hours'.

3.7 Optus considers that its estimate is conservative and is still somewhat below the daily targets we set for our Inbound Call Centres.

3.8 Optus notes that this analysis is consistent with the views expressed by CMPI/AAS that Telstra ought to be able to handle a much greater volume of connections with staff levels it has assumed and that its cost estimates are not efficient.

3.9 Optus also shares the view of CMPI/AAS that as ULLS volumes increase Telstra ought to be able to take advantage of increased automation. Indeed, part of Telstra's claimed capital development costs relate to ULLS enhancements that it says will drive efficiencies and reduce the level of manual intervention.

"This project delivers operational efficiencies to meet the current expected growth of ULLS. This will be achieved through system changes that both remove the need for manual activities and provide improved cost efficiency for ULLS provisioning".[1]

3.10 It is not at all clear whether Telstra has taken these efficiencies into account. It is notable that whilst the net additions of ULLS fall from **c-i-c** in 2006-07 to **c-i-c** in 2007-08 the costs of the in-house connections group increases by 28.5% from **c-i-c** to **c-i-c**.

3.11 Finally, Optus submits that there are strong grounds to believe that Telstra is double counting with respect to these costs. Optus notes that the activities undertaken by the Telstra Front of House group have been described in some detail in a statement provided by James Coburn of Telstra. Many of these activities appear to be "connection" related activities, such as **c-i-c**, dealing with **c-i-c**, and **c-i-c** date changes. Further, Optus notes that Telstra has separate charges for a number of these activities, such as "Late Order Retarget" ($80-$85), a "Late Order Withdrawal" ($80-$85), and an "Expired or Withdrawn Firm Order" ($17.50).

3.12 It would seem appropriate to reduce this cost component to at least half the amount claimed by Telstra.

IT O&M costs

3.13 In its submission to the discussion paper Optus has noted significant concerns with Telstra's estimated operating and maintenance costs associated with its proposed IT support systems for ULLS.

3.14 As the ACCC is aware, Optus has recently commenced roll-out of voice and data services using access to ULLS. To support these services Optus has had to undertake extensive IT development to enable it to provision ULLS, provide customer support and bill for services provided over ULLS. In many respects

[1] Telstra's Submission In Support of the ULLS Monthly charges Undertaking, page 16 and 17

Optus' IT requirements will be more complex than those of Telstra. Telstra only has to supply an inactive copper line. In contrast, Optus has to support the provision of complex end-to-end voice and data services over that copper line. Further, Telstra ought to be in a position to spread its systems costs over a broader range of wholesale services and products (potentially all retail voice and data services or all wholesale voice and data services).

3.15 Optus' estimated comparable annual O&M costs are **c-i-c** million in the year of launch falling to **c-i-c** million thereafter. These costs include:

(a) Application licence costs;

(b) Hardware licence costs;

(c) On-site and off-site maintenance support costs

3.16 On the basis of the above figures, Optus submits that Telstra's costs which average at **c-i-c** million for the period of the undertaking are significantly overstated.

3.17 Optus also shares the concern raised by the ACCC that there may be double dipping of these costs through the application of Telstra's O&M factor within PIE II.

Telstra's transformation programme

3.18 Telstra has recently notified Optus that as part of its IT transformation programme it plans to move all of its wholesale products and services to a uniform provisioning and billing platform within the next eighteen months. This being the case, Optus submits that Telstra's estimated costs for the ULLSCIS system cannot be said to be based on an efficient forward looking approach. Optus recommends that the ACCC seek further information from Telstra on its plans and the costs savings these are likely to generate.

Adjustments to the ULLS specific cost estimates

3.19 Whilst Optus accepts that the all/DSL lines approach may reduce the sensitivity of the ULLS specific cost component, nevertheless we submit that Telstra's claimed costs should be adjusted to address issues raised by Optus in this submission and its previous submission to the discussion paper.

3.20 The table below indicates the impact of the adjustments Optus considers would be reasonable.

Input factor	**Telstra assumption**	**Proposed Revision**	**2006-07 Impact $[2]**
Capex	Telstra assumed cost **c-i-c** Million	Reduce by 25% to bring into line with CMPI/AAS recommendation	**c-i-c**

[2] Measured against Telstra's low WACC ULLS specific cost of $3.89.

Front of house	**c-i-c**	Reduce by 50% all years	**c-i-c**
IT O&M	**c-i-c**	Reduce by 50% all years	**c-i-c**
Asset life	**c-i-c**	10 years	**c-i-c**
Product Management	**c-i-c**	Reduce by 50% all years	**c-i-c**
Cumulative impact			**c-i-c**

3.21 In summary, the ULLS specific component costs for 2006-07 would be reduced from Telstra's claimed **c-i-c** to **c-i-c** if the above reasonable adjustments were made.

USO

3.22 In its discussion paper the ACCC questioned whether additional subsidies (other than the USO) should be taken into account in setting ULLS prices.

3.23 Whilst Optus agrees that the USO subsidies should be deducted from the ULLS charges, there are other subsidies that should also be taken into account. In particular, Optus has highlighted the following subsidies that require further investigation:

(a) $150m Telstra received in respect of its Un-timed Local Call Tender (T2, Social Bonus, October 2000).

(b) $50m for POP dial up internet (Besley, Telecommunications Service Inquiry, 2001).

(c) Approximately $64.8m in respect of the Higher Bandwidth Incentive Scheme (Estens, Regional Telecommunications Inquiry, 2002).

(d) Telstra's Accounts for the Half year to 31 December 2005 indicate that it received non-USO related Government subsidies of $63 million during this six month period.[3]

4. Averaged ULLS charges

4.1 Optus supports the ACCC's conclusion that Telstra's proposal to set an average ULLS charge across all geographic bands is not reasonable on the basis that such an approach;

(a) Will not promote the LTIE;

(b) Will result in Telstra in Telstra recovering more than is necessary to support its legitimate business interests;

[3] Telstra 2005/06 Half Year Financial Highlights, page 23

(c) Will undermine investment in the declared service; and

(d) Will result in prices for ULLS that significantly exceed the costs of supply in the metropolitan areas where ULLS will be used.

4.2 Optus commissioned Frontier Economics to examine the issue of ULLS averaging and in particular its likely impact in promoting competition. This report has been submitted separately to the ACCC, but in summary Frontier conclude that:

(a) In metropolitan areas (bands 1 and 2), Telstra's proposed charge is not likely to promote competition relative to a four-band structure. On the contrary, Frontier conclude that competition is likely to be diminished, as averaged charge will raise the marginal costs of Telstra's rivals and reduce the incentive to acquire and service customers in these areas.

(b) In regional areas (bands 3 and 4), Telstra's proposed charge is also not likely to promote competition by facilitating new investment by access seekers.

(c) A review of banding structures in Canada and the US suggests that there may be a case for further disaggregation of bands from the four-band structure that currently applies.

4.3 These comments are consistent with the arguments Optus has made in its submission to the discussion paper and the conclusions of the ACCC as outlined in its draft decision.

5. Network Modernisation provisions

5.1 Optus has provided a separate submission which provides more detailed commentary on Telstra's network modernisation provisions, including a comparison with arrangements that apply in overseas jurisdictions.

5.2 This submission confirms the view expressed by the ACCC that Telstra's proposed provisions cannot be considered reasonable as they:

(a) Unduly negatively impact the interests of access seekers;

(b) Go beyond what is necessary to protect Telstra's legitimate business interests; and

(c) Do not promote the LTIE.

6. WACC

6.1 Optus agrees with the ACCC's conclusions that estimates used by Telstra for the purpose of calculating the WACC are not reasonable. In its submissions to the discussion paper Optus presented detailed commentary on the arguments advanced by Professor Bowman to support Telstra's WACC. Optus concluded that Professor Bowman's assumptions will likely overstate the WACC of an efficient forward-looking operator of the public switched telephony network.

6.2 Further, Optus does not believe it is appropriate for Telstra to apply a separate higher WACC to the calculation of ULLS specific costs. Telstra has put

forward no evidence to support its claim that ULLS specific assets face a higher risk profile. Optus notes that Telstra's approach to recovering these costs implies little or no risk to Telstra since it continues to roll-forward the costs until recovered. Further, to apply a higher WACC to this cost component would send the wrong signal to Telstra in terms of its incentives to keep ULLS specific costs to a minimum.

7. Appendix 1: PIE II Model no longer a reasonable estimate of forward looking efficient costs

7.1 Optus has presented a separate submission that outlines in detail our specific concerns with Telstra's PIE II model. However, even if all of these faults were to be addressed recent trends in technology indicate that the PIE II model is no longer an appropriate model for setting efficient access prices.

7.2 The objective of promoting the economically efficient use of, and investment in, infrastructure under Section 152AB(2)(e) is commonly interpreted to require neutral 'build or buy' decisions to the extent to which dynamic, productive and allocative efficiencies are achieved. Dynamic, productive and allocative efficiencies are said to be maximised when efficient 'build or buy' decisions are neutralised.

7.3 Optus submits that in the context of modelling costs for a monopoly PSTN business the appropriate approach is to calculate a regulated price which will provide appropriate incentives for the monopoly operator to be productively efficient. We contend that an incumbent PSTN operator would operate a network which would enable the supply of voice services, broadband service using xDSL technologies and other data services. It is therefore only prices that result from such a network that will promote efficient use of infrastructure and as a consequence, the LTIE. No incumbent (or new entrant) would contemplate building a network to provide voice only services.

7.4 This fact was recently acknowledged by Telstra in its Network Strategy briefing of 16 November 2005. In that detailed briefing Telstra indicated that it plans to transform both its access and core network with the aim of delivering an "integrated triple-play of voice, data and video services".

7.5 The plans announced by Telstra that it intends to replace large elements of its copper based network with the roll-out of Fibre to the Node (FTTN) and the migration of its core network to a Next Generation technology, is a very clear indication that today's predominantly copper switched network is no longer an efficient forward looking network.

7.6 Whilst there is still some uncertainty surrounding Telstra's planned FTTN roll-out, we understand that its plans to migrate its core network to a Next Generation Network (NGN) are well advanced. Central to Telstra's plans are the development of a common IP core platform for the carriage of voice data and video services.

7.7 Whereas today, Telstra has a number of separate platforms to support its different products, the move to an NGN will enable it to "collapse" many of the current platforms into a single platform.

> *"Where we are today, well, within the core and the distribution area, we have a large number of networks and distribution footprints… So with that, a little bit about what the new world might look like, ….it's about*

integrating voice, video data and mobiles distribution plots into a single plot which we do separately today". [4]

7.8 These plans are expected to transform Telstra's cost base. The migration to an NGN in its core network will enable Telstra to reduce the amount of equipment deployed in its network. In its November briefing, Telstra indicated that it will deploy 10 "softswitches" that will enable it to replace 116 of its existing voice switches. Such a move will enable Telstra to take advantage of huge economies of scale through the new switches.

At the moment we have about 250 odd nodes in our network switches, that is core switches, that actually deliver that capability to our customers. This network is a single application network in the sense that it is primarily there to deliver voice. Yes, we have a lot of voice products that are wrapped around that but that network is optimised for voice. It is not optimised for the sort of multi-services that we have been talking about there today.

Within those the five city areas that we are looking at for the transformation, we have around 5.4 million services in operation. So as Jim picked up earlier, those services for the plain old telephony service will be transitioned over to the new softswitch infrastructure. That will take out 116 of those 250 odd class 5 and class 4 nodes that I spoke of earlier.

The transformed network is moving towards, as we have said, a common core…
Key to that is the centralisation to a smaller number of softswitches so we will be looking at five mated pairs of softswitches. To give you an indication currently we have on most of our class 5 switches we would normally dimension to about 120,000 odd services in operation. These softswitches will take us up to a dimensions of about 2 million services in operation off each softswitch. [5]

7.9 Further, these changes will reduce the level of support costs and overheads that are likely to be attributable to services using the common platform. Telstra indicated that in addition to the lower network costs, it expects to derive additional savings from having fewer systems, less space requirements with a smaller number of exchanges required and lower power requirements. Equally, the reductions in complexity of the network and the improved reliability will help to derive reductions in operating costs.

"I can't emphasise enough what this is going to do to our cost structure and what we call bad volumes. Things like truck rolls, fault management, repeat reports, impacting our customer experience and all the associated costs, let alone the enablement of all the new technology and the services that go with it.[6]

[4] Bill Felix, Transcripts Telstra Technology Briefing 16 November, page 10.
[5] Jamie Chard, Transcripts Telstra Technology Briefing 16 November, page 13.

[6] Gregg Winn, Transcripts Telstra Technology Briefing 16 November, page 9.

"We are not going to have to do the power builds, the UPS back ups, the generators, the fuel storage, all of this stuff that goes with growing these old networks gets collapsed to these new softswitch locations which by the way consume less power, require less cooling. Do the machines run hotter in today's world? For the most part, yes, but they are not as big, they are not multi-floors of equipment. We are going to recover a lot of space from a real estate standpoint, so our total cost of ownership going forward has dramatically changed. Everything from how many locations we have to have people in to surveillance and to work on it, to the utilisation of for the most part space that we own where we have our switches which we can convert to any kind of space we choose to do so. So it's going to again fundamentally change the cost structure".[7]

7.10 It is unambiguous that Telstra will drive significant cost savings from its planned migration to a core NGN. These changes will clearly have a significant impact on the unit cost of providing PSTN services. It is entirely possible that as the current IEN is replaced by a common IP core network the costs of PSTN services will be close to zero given the large capacity demands that other services will place on the common core network. Further, it is not at all clear that the current pricing structure of PSTN with per minute based charges remain appropriate.

7.11 The above comments are consistent with many of the findings set out in a recent report by econ for Ofcom which looked at the potential impact of BT's NGN plans on interconnect tariffs. In that report econ note that:

The move towards NGN is expected to bring substantial cost savings for operators, by increasing usage and providing the opportunity to exploit scale economies further[8].

Using IP technology allows for a more intensive use of links and for different services to be run over the same network, where before different core networks used different transmission protocols. Therefore, the move towards a common IP technology allows:

- *increased usage on shared links, and*
- *increasing the proportion of shared links (thus reducing dedicated links).*

The benefits of statistical capacity sharing are greater as the sources of traffic sharing the network become more various, which has the effect of reducing the variance of the total demand for capacity. In addition, sharing of network assets across services is expected to reduce both overall fixed network costs and the per traffic unit cost of equipment at network nodes, and provides flexibility in using capacity for different services, as less spare capacity required to meet potential demand shocks for individual services. In addition, consolidation of networks can substantially reduce costs[9].

[7] Gregg Winn, Transcripts Telstra Technology Briefing 16 November, page 16.

[8] Econ, A Report for Ofcom: Assessing the impact of NGNs on interconnection tariffs' distance gradients, page30

7.12 It is also unambiguous that Telstra has not reflected its NGN migration plans within the PIE II Model for the purpose of this undertaking. It is reasonable to state, therefore, that PIE II represents a "backward looking" rather than a "forward looking" estimate of costs. To accept prices based on the output from a backward looking cost model would clearly not be reasonable or consistent with the neutral "build or buy" interpretation of the criteria under the Act.

[9] ibid page 34