

**Optus Submission to**  
**Australian Competition and Consumer Commission**  
**On Telstra's PIE II Model**  
**Public Version**

**July 2006**

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## **1. Introduction**

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- 1.1 The following paper provides a summary of Optus' comments on the PIE II Model. This draws upon work undertaken by Optus as part of the current and past regulatory processes. It also includes an independent assessment of PIE II undertaken by n/e/r/a London on behalf of Optus.
- 1.2 Whilst some of the analysis was performed a number of years ago, Optus considers that this is still highly relevant to the ACCC's assessment of the current undertaking:
  - (a) Optus' work has been updated where relevant;
  - (b) Telstra has confirmed that the basic engineering rules and key assumptions underpinning PIE II have not been changed. Telstra has made representations to the effect that the only changes to the model relate to price indices for equipment, the WACC and volumes; and
  - (c) The expert reports Telstra has submitted in support of PIE II were clearly developed for past regulatory processes.
- 1.3 Overall Optus continues to believe that there are so many fundamental problems with the PIE II model that the resultant output from the model cannot be assumed to be reasonable and, therefore, deemed to be fit for purpose for setting access prices.

## **2. Comments on high level principles**

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### **PIE II Model no longer a reasonable estimate of forward looking efficient costs**

- 2.1 Optus submits that the PIE II model is no longer a model for efficient forward looking costs.
- 2.2 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.
- 2.3 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.

- 2.4 This fact was recently acknowledged by Telstra in its Network Strategy briefing of 16 November 2005. In that briefing Telstra indicated that it plans to transform both its access and core network with the aim of delivering “integrated triple-play of voice, data and video services”.
- 2.5 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. Notwithstanding this, it appears that Telstra has made no modifications to PIE II to take account of its plans. Optus can only conclude that PIE II is now 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 nor consistent with the neutral “build or buy” interpretation of the criteria under the Act.

### **Flawed inputs and assumptions**

- 2.6 Even if it were established that it is appropriate to model an efficient copper based switched network, PIE II does not do so. The PIE II model purports to determine the 'efficient forward looking cost' of the CAN by constructing a hypothetical PSTN based on a variety of actual inputs (such as customer locations), assumptions and estimation techniques. As noted by n/e/r/a, in principle, an appropriate cost model that is based on the estimation of efficient costs will provide a better estimate of long run incremental costs than the cost accounting data of an incumbent (which will include the inefficiencies of the incumbent’s network). However, if best methods and assumptions are not used in the model, then the inefficiencies in the hypothetical network design may well be greater than in the actual existing network.
- 2.7 Optus submits that the engineering rules used in the PIE II Model are not reasonable, are not consistent with international practice in computing efficient costs and have not assumed optimised network element utilisation. In fact, the n/e/r/a report concludes that "The errors and overestimations introduced into the hypothetical model are likely to be at least as great as if a cost accounting model had been used, even if such a cost accounting model were based on an inefficient network operator."<sup>1</sup>
- 2.8 The PIE II Model and its underlying assumptions do not produce a reasonable estimate of the TSLRIC of the CAN, and as such, the output of the model can not be relied upon to produce estimates for the basis of establishing access prices which can be considered reasonable under the statutory criteria.
- 2.9 Further details on the material flaws and errors within the model are set out in section 3 below.

### **PIE II Model opaque and untestable**

- 2.10 Optus does not believe that the ACCC can be satisfied that cost estimates generated by the PIE II Model are reasonable estimates of efficient forward

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<sup>1</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, p.16

looking costs of the CAN, because the PIE II Model is opaque and inflexible and is unable to be appropriately audited and tested.

- 2.11 Optus refers the ACCC to the expert report of n/e/r/a and the report of Marsden Jacob Associates for the CCC in respect of the difficulty in testing or manipulating the PIE II model. In particular, n/e/r/a found that the model was so unresponsive that "some of the comparisons we would like to have made have proved impossible"<sup>2</sup>. Marsden Jacobson for the CCC noted that "One reoccurring critique of the PIE II model has been its lack of transparency. The authors of this model have worked with numerous other cost models and by comparison the PIE II model is one of the least accessible"<sup>3</sup>.
- 2.12 Even where assumptions are variable by access seekers the process of manipulating the model takes an unreasonable amount of time and expenditure.
- 2.13 As noted by the Commission in its draft decision on Telstra December 2004 ULLS undertaking, accepting such an unauditible model and basing access prices upon the output of PIE II would amount to "delivering regulatory outcomes to the party that has the deepest pockets".<sup>4</sup>

### **3. Comments on detailed modelling assumptions**

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#### **Determination of distribution areas**

- 3.1 The PIE II Model divides Australia into different types of 'Distribution Areas' ('DA') ('High Density Urban CAN'; 'Urban CAN'; 'Non-urban CAN' and 'Non-urban Alternative Access'). Each DA type then uses a different methodology to calculate network costs.
- 3.2 Optus submits that there are fundamental inefficiencies in the grid method used by the PIE II model, as set out in expert report of n/e/r/a and that <sup>5</sup>:
  - (a) given the availability of detailed and accurate geographic data, the employment of relatively large grids for the definition of distribution areas is inappropriate, not best practice and will lead to significant overestimation of trench lengths and copper wire lengths;
  - (b) the grid mechanism fails to distinguish between built up and non-built up areas within a grid and imposes arbitrary borders which may cut through 'conurbations', which results in significant over estimation of trenches and cables costs; and

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<sup>2</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, p.43

<sup>3</sup> A report prepared by Marsden Jacobs Associates for the Competitive Carriers Coalition: Comments On Discussion Paper, Telstra's Undertaking in relation to Unconditioned Local Loop Service Page 1

<sup>4</sup> ACCC, Assessment of Telstra's ULLS and LSS monthly charge undertakings - Draft Decision, p. 92

<sup>5</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, pp. 8-9

- (c) Using a clustering algorithm to identify DAs rather than the grid approach would have significantly improved the output of the model without adding significant computational cost to the process.

### **Trench length estimation**

#### *Minimum spanning trees*

- 3.3 The PIE II Model uses Minimum Spanning Tree ("MST") algorithms to design a network between addresses in non-urban distribution areas and to connect DA's to the RAU.
- 3.4 Optus submits that Telstra's application of the Minimum Spanning Trees algorithms to estimate trench lengths is not reasonable and will over estimate efficient costs because in seeking only to minimise trench lengths the algorithm ignores the cost of copper and therefore creates a network that uses more copper than would be efficient.
- 3.5 Workable algorithms exist that take into account both trench lengths and local loop lengths, and that these algorithms should significantly reduce modelled costs<sup>6</sup>. Optus submits that a reasonable estimate of the efficient network costs would employ such an adjusted algorithm instead of the MST algorithm used by Telstra.

#### *Arbitrary location of pillars*

- 3.6 Optus submits that the arbitrary placing of pillars in the centre of each DA under the PIE II methodology will lead to an overstatement of the trench and cable lengths needed to connect the pillars to the RAUs and an overstatement of pillars.
- 3.7 For the reasons set out in the expert report of n/e/r/a, using a Steiner Tree algorithm instead of the MST algorithm will model a more efficient network<sup>7</sup>. In particular:
  - (a) the Steiner Tree algorithm can optimise the placement of pillars in a DA; and
  - (b) while the Steiner Tree algorithm involves large computational complexities, there are heuristic solutions that approximate the Steiner Tree algorithm without its unworkable complexity.<sup>8</sup>
- 3.8 Optus submits that a reasonable model of efficient costs would employ such a heuristic solution to avoid the inefficient overstatement of trench lengths resulting from the arbitrary placement of pillars.

#### *Rectilinear distance estimation*

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<sup>6</sup> *ibid.*, p. 12

<sup>7</sup> *ibid.*, pp. 13-14

<sup>8</sup> *Ibid.*, p. 14

- 3.9 Optus submits that the ACCC cannot be positively satisfied that the use of rectilinear distances in the PIE II model produces reasonable estimates of efficient trench lengths. In particular, Optus submits that:
- (a) the use of rectilinear distances overstates real distances significantly<sup>9</sup>;
  - (b) Telstra has presented contradictory evidence on the value of variance associated with rectilinear estimations as compared with Cartesian estimates<sup>10</sup>;
  - (c) Telstra has not presented sufficient evidence to justify why a corrected Cartesian estimate would not yield a more reasonable distance estimate than a rectilinear estimate<sup>11</sup>; and
  - (d) Telstra has not provided sufficient methodological evidence to explain how the rectilinear estimation is applied in the PIE II model.

*Overall trench length not reasonable*

- 3.10 For the reasons set out in the n/e/r/a report Optus submits that the overall trench length calculated by the PIE II model cannot be considered reasonable when compared with the previous ACCC/NERA model estimates and NERA's pre-existing estimates as reported in bottom up country cost models.<sup>12</sup>

**Use of reference DA**

- 3.11 Instead of using network design algorithms to compute costs in urban DAs, PIE II extrapolates costs from a 'reference DA'.
- 3.12 Optus submits that it is not reasonable to use a reference DA to compute the network costs in urban DAs for the reasons set out in the n/e/r/a report. In particular, that<sup>13</sup>:
- (a) using a reference DA is inconsistent with the stated complexity of the model and wastes a large amount of collected and available data;
  - (b) Telstra has not provided sufficient documentation to determine the quality of the procedure used; and
  - (c) the available data suggests that an "overly simplified and sub-optimal procedure" has been used which will result in a "much larger than necessary error in the estimation of the access network".

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9 NERA, Comments on PSTN conveyance costs in PIE II: A Report for Singtel Optus, March 2004, p. 13

10 CRA initially finds that rectilinear estimation has a higher degree of variance than Cartesian estimates in its May 2005 report and subsequently concludes that rectilinear estimation has lower variance in its September 2005 report following ACCC commentary on the value of variance: M. Kennet and B.M. Mitchell, Confidential Commentary on PIE II Model Assumptions (Public Version), CRA International, May 2005, p. 5; B.M. Mitchell, Commentary on Network Costs Section of ACCC Draft Decision, CRA International, September 2005, section 4.1 .

11 ACCC, Final Decision - Assessment of Telstra's ULLS and LSS monthly charge undertakings (confidential version), December 2005, p. 102

12 NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, pp. 27-30

13 *ibid.*, p. 16

## **Trench sharing**

- 3.13 Trench sharing is an important aspect of a forward looking model, as when trenches are shared line costs are significantly reduced.

### *New Estates (open trenches)*

- 3.14 Optus submits that a reasonable model would reflect Telstra's capacity to have optimally shared trench costs for new estates established throughout the construction of the PSTN rather than simply in the year of modelling. Otherwise, Telstra is able to reap a return on trenching costs that it did not actually incur. This approach is consistent with the scorched-node methodology that is considered appropriate in determining TSLRIC prices and was supported by the ACCC in its Final Decision.<sup>14</sup>
- 3.15 On this basis, Optus submits that **c-i-c** is not a reasonable proportion to assume for new estates and that a very conservative figure (taking account of the historical accumulation of new estates) would be no less than 20%.

### *Third parties*

- 3.16 Optus submits that the level of trench sharing with third parties is underestimated in the PIE II Model.
- 3.17 Further, Telstra's approach to accounting for trench sharing is not reasonable since it deducts from its cost base those leasing revenues that it actually achieves, rather than leasing revenues that it could efficiently achieve. The Productivity Commission has previously recognised that this approach is inconsistent with the forward-looking nature of TSLRIC models because it provides no incentive for efficient trench-sharing.<sup>15</sup>
- 3.18 In addition, Optus submits that the PIE II model underestimates the benefits of duct sharing. In particular, while the PIE II model assumes that Telstra receives revenue of \$ **c-i-c** per/km for duct sharing, whereas Optus will be paying an effective rate of \$ **c-i-c** per/km.<sup>16</sup> Further, it is submitted that given its scale, Optus is likely to be at the lower end of Telstra's prices.

### *Sharing between Telstra networks*

- 3.19 Optus submits that the level of sharing between the CAN and IEN networks within PIE II is significantly less than Telstra's capacity to share. In this regard, Optus notes that Telstra shares only **c-i-c** of its IEN network compared with the 15-70% shared in n/e/r/a international benchmarks.<sup>17</sup> Optus also notes that while the PIE II model only allows main cable sharing

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<sup>14</sup> ACCC, Final Decision - Assessment of Telstra's ULLS and LSS monthly charge undertakings (confidential version), December 2005, p. 101

<sup>15</sup> PC Telecommunications Report, pages 639

<sup>16</sup> Price charged by Telstra for duct access to Optus – effective from 1 July 2006.

<sup>17</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, p. 34



when main cable extends for more than **c-i-c**, Optus believes that Telstra already shares main cable well below this level.<sup>18</sup>

### **Dimensioning of network elements**

- 3.20 Optus submits that Telstra has failed to optimally dimension cable, pillar and other network element sizes in the network.
- 3.21 The n/e/r/a Report criticises Telstra's use of simplified engineering rules rather than setting network element sizes to achieve efficient levels of utilisation, which does not correspond to a best-feasible or international practice approach.<sup>19</sup>

### **Inappropriate use of technology**

#### **RAUs**

- 3.22 The PIE II model dimensions Telstra's IEN such that all RAUs use CMUX - also known as a DSLAM. Telstra, and its experts, claim that CMUX is *best in use* technology.
- 3.23 Optus contends that CMUX is not "best in use technology" for the TSLRIC model developed by Telstra. This is because the scope of services included in PIE II is restricted to voice, leased lines and ISDN (this is explained further below). CMUX technology would only be appropriate if data services (such as DSL services) were included.

#### *TSLRIC*

- 3.24 Estimating the TSLRIC of PSTN interconnect requires the modeller to make a decision regarding the scope of services to include in the model. This decision affects the size of economies of scope from different services' use of network elements, and the degree to which common costs are shared. The PIE II model, like the previous NERA model, estimates the cost of a "stand alone"<sup>20</sup> network capable of providing all Telstra's PSTN and private circuit services. In that sense, it goes beyond an element based model of interconnect services by including:
  - Telstra's own PSTN traffic.
  - All the undertakings services, such that traffic and line related costs are modelled.
  - Leased line and ISDN services.

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<sup>18</sup> Optus, Optus Submission to Australian Competition and consumer Commission on Telstra's PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, March 2004, paragraph 6.6

<sup>19</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, p.14

<sup>20</sup> The ACCC's pricing principles, page 25, indicate that "TSLRIC is the incremental or additional costs the firm incurs in the long term in producing the service. This is not consistent with its own approach or that of PIE II.

- 3.25 TSLRIC also requires that the costs of the network be based on *best in use* technology. This means that the technology be currently deployed in networks around the world and *be least cost for the services being modelled*.
- 3.26 The FCC requires that the “technology assumed in the cost study or model must be the least-cost, most efficient, and reasonable technology *for providing the supported services* that is currently being deployed”<sup>21</sup>
- 3.27 The choice of technology must factor in the grade of service being offered.
- 3.28 Optus does not believe that PIE II complies with the principles of TSLRIC in that its choice of ‘best in use’ technologies and is inconsistent with the scope of services modelled. Specifically, PIE II chooses Customer Multiplexer (CMUX) technology for all RAUs (including rural areas), even though this would only be least cost for the deployment of broadband and narrowband services over a common platform. However, the scope of services modelled does *not* include broadband services such as DSL services. This is a significant omission because these broadband services should also be incorporated in recovering the costs of the CMUX technology.
- 3.29 The exclusion of these services means that access seekers will effectively fund Telstra’s deployment of advanced service technologies. Telstra is effectively double-dipping to a significant degree since the costs of the CMUX are also recovered through separate retail and wholesale charges for DSL access. CMUX is the next generation RIM (Remote Integrated Multiplexer) from Alcatel. The CMUX supports ADSL cards in addition to PSTN and ISDN interfaces.

#### CMUX

Telstra’s CMUX solution is based on Alcatel’s 1540 MSAN, a multi-service solution that simultaneously supports a whole range of services, including voice, video, data, Internet and transport services.

Alcatel 1540 Litespan Multiservice Access Network features including:<sup>22</sup>

Wide range of end-user services such as POTS, ISDN, ADSL, SHDSL, data from 64kbps to 2Mbps, Ethernet, VoIP and VoDSL.

Multiprotocol with TDM, ATM and ATM/IP on a single node. First multiservice access gateway integrating decentralised access gateway and broadband and narrowband services.

ADSL closer to the end user with Alcatel DSLAM inside: optimum ADSL deployment with more bandwidth in areas where ADSL demand is low or medium. Common network management for Broadband services.

- 3.30 In contrast, the previous NERA model included RIM and IRIM technology at RAUs, which are best in-use for the undertaking services. Similarly in other jurisdictions, such as the US and United Kingdom, RIM technology is the

<sup>21</sup> FCC Universal Services Order, page 250.

<sup>22</sup> <http://www.alcatel.com/newslink/0101/latitude.htm>

basis of access pricing models including the HAI model Release 5.0a, HAI consulting and NERA models. The HCPM (used by the FCC) chooses wire centre (or RAU) technology based on least cost. The HCPM model includes an algorithm to choose between copper based (T-1) terminals and fibre-based digital loop carrier (DLC) terminals. A DLC remote terminal is the US term for RIM.<sup>23</sup>

- 3.31 Remote Integrated Multiplexer (RIM) technology allows Telstra to run fibre-optic cable to a location (where it is de-multiplexed and converted to an analogue signal) and then convert the fibre signal into traditional phone services (over copper). This was required under the FMO. RIMs are significantly cheaper to install in remote locations where there is no existing copper infrastructure, such as new outer-suburban housing estates, outback bush and islands. However, they do not support ADSL.<sup>24</sup>
- 3.32 Optus is not aware of models that universally deploy CMUX in calculating access prices for PSTN services.
- 3.33 The effect of adopting CMUX is that PIE II model will overestimate the cost of conveyancing.<sup>25</sup> This will be exacerbated in rural areas that have a disproportionate number of RAUs. In addition, in rural areas it may not be feasible to activate DSL services given the long copper runs. This would make CMUX deployment entirely inappropriate.
- 3.34 Optus therefore contends that the total conveyancing costs reported in PIE II and the cost relativities between geographic areas cannot be relied upon and should be rejected by the ACCC.
- 3.35 Correcting PIE II is problematic. It might involve either:
- Including DSL services in the TSLRIC calculation, where they can be feasibly offered. Routing factors for DSL services would be needed to share the costs of CMUX to those services. Where not feasible, the model should implement a least cost algorithm for the choice of RAU technology.
  - Remodelling the network based on 'best in-use' technology which we contend is RIM and IRIM technologies, particularly in rural areas.
- 3.36 Neither of these options is feasible, and Optus believes that PIE II should be rejected.

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23 It is also worth noting that in the HCPM, the DLC terminal capacities are optimised, whereas in PIE II these are fixed engineering capacities.

24 Telstra did adopt a "mini-CMUX" solution, which is an additional panel of cards that will be placed into the RIM cabinet, allowing up to 10% of customers on that RIM to get ADSL.

25 PIE II replaces RIMs with CMUX AGH. All CMUX have SDH (STM1) in CBD and metropolitan areas. This is necessary for the ADSL. Transmission of 16x2Mb/s fibre for POTS would be sufficient.

### *RAU capital costs*

3.37 Notwithstanding technology choices, Optus contends that the capital cost of network elements used in PIE II may not be least cost. The table below shows Optus' cost of RAU elements compared to the cost indicated by Telstra. This should flag to the ACCC an audit of PIE II costing prior to its geographic structures being relied upon.

### **Network element capital cost**

	<b>SingTel Optus</b>	<b>PIE II</b>
CMUX POTS card	c-i-c	c-i-c
CMUX ISDN card	c-i-c	c-i-c
CMUX (including rack)	c-i-c	c-i-c
CMUX AGH	c-i-c	c-i-c
CMUX HUG	c-i-c	c-i-c
CMUX NU	c-i-c	c-i-c

### **Other inputs to the model**

#### *Demand*

- 3.38 Optus submits that the PIE II Model over estimates the efficient costs of supply by inappropriately seeking to recover the costs of provisioning for future increases in demand.
- 3.39 Optus does not dispute that a forward-looking TSLRIC model may recover the costs of provisioning for reasonable spare capacity to account for the uncertainty of market conditions, short-term unexpected demand increases, or to allow for maintenance and repairs to be undertaken. However, the efficient forward-looking costs of the CAN should not include the costs of provisioning for anticipated increases in future demand. Optus supports the view previously expressed by the Commission that the costs of provisioning for future demand should only be recovered from that demand once it eventuates, as this will ensure costs are recovered from the appropriate customer base, rather than perpetually over-recovered.<sup>26</sup>

#### *Alternative technologies*

- 3.40 Optus submits that a reasonable forward-looking model of an efficient network would utilise mobile technology as an alternative technology to copper to service non-urban DAs, particularly where mobile technology is already available for other purposes, since this will lead to significant reductions in network costs.

26 ACCC, Final Decision - Assessment of Telstra's ULLS and LSS monthly charge undertakings , December 2005, p. 98

- 3.41 The PIE II model under-utilises satellite technology in low tele-density areas which leads to inefficient network design and an over-estimation of trench lengths.<sup>27</sup>
- 3.42 The PIE II model uses c-i-c of the total trenches to serve less than c-i-c of total SIOs.<sup>28</sup> Optus submits that this represents an extremely inefficient CAN design that could be remedied by greater utilisation of alternative technologies.
- 3.43 Further, the PIE II model over-estimates the cost of delivery for satellite services. While the PIE II model uses a cost of \$ c-i-c per SIO, Optus submits that the cost per satellite SIO should be no more than \$ c-i-c.<sup>29</sup>

#### *Equipment costs*

- 3.44 Optus submits that the PIE II model uses inefficient equipment costs as inputs to its model. Optus understands that Telstra has used its current equipment costs as inputs to the PIE II model and given that there was no way to assess the equipment pricing or efficiency of labour applied to the costing, it should be assumed that the model applies no efficiency factors to the costs.

#### *Asset lives*

- 3.45 Optus submits that the PIE II model has significantly underestimated the efficient asset lives of a number of specific asset categories. Optus refers the ACCC to a previous Optus submission which sets out appropriate asset life spans for the identified asset categories.<sup>30</sup>

#### *Price trends*

- 3.46 Optus submits that the price trends used in the PIE II model are not reasonable and not representative of the actual price trends that are faced by Telstra or any other network operator. Optus refers the ACCC to a previous Optus submission which sets out price trends that are more reflective of actual price trends than those used by Telstra.<sup>31</sup>

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27 Optus, Optus Submission to Australian Competition and Consumer Commission Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, August 2003, paragraphs 8.15-8.22

28 Optus, Optus Submission to Australian Competition and Consumer Commission Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, August 2003, paragraph 8.25

29 Ibid paragraph 8.21

30 Optus, Optus Submission to Australian Competition and Consumer Commission Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, August 2003, paragraph 8.55

31 Optus, Optus Submission to Australian Competition and Consumer Commission Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Unconditioned Local Loop Service and Local Carriage Service, August 2003, paragraph 8.52

- 3.47 For the purpose of the current ULLS undertaking, Optus notes that Telstra has updated the price indices for a number of assets<sup>32</sup>. Optus submits that these price trends are not reasonable.
- 3.48 Telstra indicates that it has based these indices on data published by the Australian Bureau of Statistics (ABS) on average weekly ordinary time earnings and asset price trends Annual National Accounts for the communications services sector. Telstra provides no further detail to help access seekers determine how these prices indices have been developed.
- 3.49 Optus considers that the ABS data used by Telstra is not likely to be relevant for the purposes of costing a forward looking network. Firstly, the assets categories quoted in the ABS data are likely to be too broad, a fact acknowledged by Telstra. Secondly, given the global nature of telecommunications it would be more appropriate to use overseas data to construct prices indices. In this respect Optus notes that Ofcom's review of BT's network charge controls included the following price indices:
- (a) Average change in real asset prices across inland call conveyance a reduction of 2.14%; and
  - (b) A real reduction in other input costs of 1.99%.

#### *Land and building costs*

- 3.50 Optus also submits that the asset prices for land and buildings are overestimated. The report of n/e/r/a, which found that the total investment cost for land and buildings used in PIE II is more than double that used in the ACCC/NERA model.<sup>33</sup>
- 3.51 In its Network strategy briefing of 16 November, Telstra's COO, Gregg Winn noted that Telstra's network transformation project will deliver significant savings in this area:
- "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"*<sup>34</sup>.
- 3.52 Again, we are not aware of any adjustments that Telstra has made to PIE II to account for its forecast change in future costs.

#### *Network Planning Costs*

- 3.53 Optus submits that network planning costs should not be included in the calculation of network costs, are already included in other cost components of the PIE II Model and that the calculation of network planning costs by the PIE II Model is not reasonable.

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<sup>32</sup> Telstra's Submission in support of the ULLS monthly charges undertakings, paragraph 34.

<sup>33</sup> NERA, Assessment of the PIE-II Model - A Report for OPTUS, July 2003, p. 22

<sup>34</sup> Transcripts of Telstra Technology Briefing, 16 November 2005 page16.

- 3.54 Optus supports the view taken by the ACCC in its final decision on the December 2004 ULLS undertaking that "it is most appropriate and likely that these costs are currently being recovered from O&M costs".<sup>35</sup> While Telstra asserts that this is factually incorrect, Optus submits that Telstra has failed to properly demonstrate that network costs are not already included in O&M costs and that there remains a real concern that Telstra may be over-recovering its current expenditure on network planning costs.

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<sup>35</sup> ACCC, Final Decision - Assessment of Telstra's ULLS and LSS monthly charge undertakings (confidential version), December 2005, p. 100