

**Optus Submission to**  
**Australian Competition and Consumer Commission**  
**on**  
**Domestic GSM Terminating Access Service Undertaking**

**December 2004**

## Table of Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Executive Summary .....</b>	<b>2</b>
<b>3. Overview of the undertaking.....</b>	<b>3</b>
Service and infrastructure.....	3
Price terms and conditions .....	4
Term of undertaking.....	6
Non-price terms and conditions.....	6
Other terms and conditions not specified .....	7
<b>4. Legislative background.....</b>	<b>8</b>
Threshold test for accepting the undertaking.....	8
Compliance with the standard access obligations .....	8
Reasonableness criteria .....	9
Other threshold requirements.....	10
<b>5. Compliance of undertakings with the standard access obligations .....</b>	<b>10</b>
<b>6. Long-term interests of end-users test to be applied to the undertaking .....</b>	<b>11</b>
Interpretation of the LTIE test.....	11
Relevance of market definition .....	12
Mobile services market.....	13
Fixed to mobile market.....	16
Criteria for the promotion of competition .....	16
Any-to-any connectivity applied to prices.....	18
Efficient use of and investment in infrastructure.....	19
<b>7. The LTIE is served by the undertaking prices.....</b>	<b>20</b>
Promoting competition.....	21
Efficient use of and investment in infrastructure.....	23
<b>8. Undertaking price structures promote the LTIE.....</b>	<b>25</b>
<b>9. Other reasonableness criteria .....</b>	<b>27</b>
Legitimate business interests of access providers .....	27
Interests of access seekers .....	30
Direct costs.....	31
Operational and technical requirements .....	31
Economic efficiency .....	31
<b>10. Estimating efficient costs .....</b>	<b>32</b>
Incremental costing methodology.....	33
Estimation of welfare maximising termination charges.....	37
Model Results.....	40
International comparisons .....	41
<b>11. Non-price terms and conditions are reasonable .....</b>	<b>42</b>
<b>12. Confidentiality .....</b>	<b>43</b>

## 1. Introduction

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- 1.1 The Domestic GSM Terminating Access Service was deemed to be a declared service in 1997. The service description for that declared service was varied in 2002 to include CDMA as well as GSM terminating access. Following the expiry of that declaration on 30 June 2004, the ACCC declared the service entitled, “Domestic Digital Mobile Terminating Access Service” with effect from 1 July 2004.
- 1.2 The current service description for the Domestic Digital Mobile Terminating Access Service is not expressed to apply to a specific mobile technology (GSM, CDMA or otherwise). It is instead described as an access service for:

*“the carriage of voice calls from a point of interconnection, or potential point of interconnection, to a B-Party directly connected to the access provider’s digital mobile network.”*

This current declaration will expire on 30 June 2009.

- 1.3 As Optus is a provider of the Domestic Digital Mobile Terminating Access Service, it is an access provider of an active declared service. Accordingly, Optus is required to supply the Domestic Digital Mobile Terminating Access Service to any service provider on request. Optus must also supply the active declared service in accordance with the standard access obligations (SAOs).
- 1.4 There are three options available for Optus to comply with the SAOs in relation to the Domestic Digital Mobile Terminating Access Service: on terms and conditions agreed between Optus and the access seeker; on such terms and conditions as determined by the ACCC in an arbitration; or in accordance with an access undertaking given by Optus.
- 1.5 These three options are not mutually exclusive. Part XIC of the *Trade Practices Act 1974 (the Act)* enables an access seeker to comply with the SAOs using a combination of the options. For example, the terms and conditions of compliance can be partly set out in an access undertaking, partly agreed and partly determined by arbitration. This means that an access undertaking does not need to specify all aspects of the terms and conditions of access to a declared service. Any ‘residual’ SAOs not covered by an undertaking would remain subject to agreement between the access provider and access seeker or, failing agreement, subject to determination by the ACCC.
- 1.6 Optus has lodged an ordinary access undertaking with the ACCC pursuant to section 152BS of the Act. The undertaking specifies the price and non-price terms and conditions on which Optus will provide access to the Optus Domestic GSM Terminating Access Service (**Optus DGTA Service**). The undertaking applies to the calendar years ending 31 December 2005, 31 December 2006 and 31 December 2007.
- 1.7 This submission is provided in support of the Optus undertaking. The Act specifies the process and criteria to be applied by the ACCC in its assessment

of the undertaking. Optus submits that the undertaking satisfies those criteria and should therefore be accepted by the ACCC.

## **2. Executive Summary**

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2.1 Optus has lodged an ordinary access undertaking for the Optus Domestic GSM Termination Access Service (**Optus DGTA Service**).

2.2 Optus contends that the prices and non-price terms and conditions of its undertaking are consistent with the standard access obligations (**SAOs**). Optus also contends that all the terms and conditions of the undertaking are *reasonable*, as defined in the statutory criteria.

2.3 This submission is structured as follows:

- **Section 3** provides an overview of the Optus undertaking;
- **Section 4** sets out the legislative background and criteria by which the ACCC is required to assess the undertaking;
- **Section 5** details the undertaking's compliance with the SAOs;
- **Section 6** discusses how the long-term interests of end-users (**LTIE**) criteria are to be applied the undertaking price and non-price terms and conditions;
- **Section 7** provides the economic evidence for the consistency of the undertaking prices with the LTIE;
- **Section 8** demonstrates how the undertaking price structures promote the legislative criteria;
- **Section 9** addresses the other reasonableness criteria to the undertaking, as set out in the Act;
- **Section 10** examines the economic basis for the undertaking prices, in particular the estimation of efficient cost;
- **Section 11** provides conclusions on the reasonableness on the undertaking non-price terms and conditions; and
- **Section 12** provides a statement regarding the confidentiality of information in this supporting submission.

2.4 In support of the above contentions in relation to the reasonableness of the above price terms and conditions and their consistency with the SAOs, Optus relies on the following Appendices:

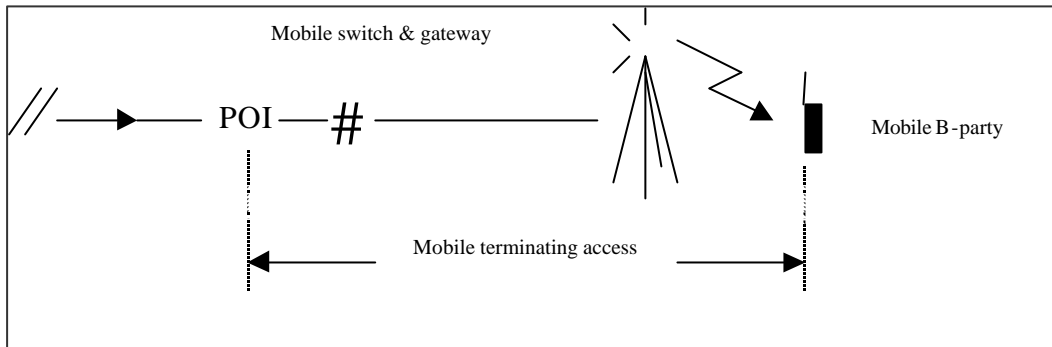
- Appendix I** Affidavit of Professor Jerry Hausman in support of Optus' pricing methodology.
- Appendix II** Report of Charles Rivers Associates (**CRA**), which provides an efficient costing of the Optus DGTA Service.
- Appendix III** Report of CRA, which provides international benchmarks of Optus DGTA Service prices.
- Appendix IV** Report of n/e/r/a on the existence and exercise of market power in mobile termination.
- Appendix V** Report of n/e/r/a addressing theoretical and empirical issues associated with the existence of joint costs in mobile networks including the welfare implications of regulating a mobile termination service at cost.

### **3. Overview of the undertaking**

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#### **Service and infrastructure**

- 3.1 Optus Mobile is a carrier that owns and operates a GSM network with coverage of approximately 94% of the Australian population. Optus has installed over 3,500 base stations.
- 3.2 The Optus DGTA Service is an access service for the carriage of voice calls from a point of interconnection (**POI**) to a B-party directly connected to the Optus GSM network.
- 3.3 The access seeker will hand over the carriage of call from its network to the Optus GSM network at the POI nearest to the location of the calling number at the time of the call.
- 3.4 The Optus DGTA Service may be used by access seekers with (access to) fixed networks, in order to provide fixed-to-mobile call retail services for the termination of calls to mobile service numbers located on the Optus GSM network.
- 3.5 The Optus DGTA Service may also be used by access seekers with (access to) mobile networks, in order to provide mobile-to-mobile call retail service for the termination of calls to mobile service numbers located on the Optus GSM network.
- 3.6 The Optus GSM network will be used to supply the Optus DGTA Service. The infrastructure used in supply the Optus DGTA Service is illustrated in the following diagram:



3.7 The Optus DGTA Service comprises two essential elements:

- (a) the carriage of the call from the POI to the Optus network; and
- (b) the termination of the call on the Optus network.

3.8 The Optus GSM network is used to provide a range of services in addition to the Optus DGTA Service. They include origination services and subscription services. Other services may also be provided in the future.

**Price terms and conditions**

3.9 The prices for the Optus DGTA Service are set out in Schedule 2 to the undertaking.

3.10 Optus makes two pricing options available in the undertaking for access seekers acquiring the Optus DGTA Service. Access seekers have the choice of either Option 1 prices or Option 2 prices.

**Option 1**

2005	19.25 cents per minute
2006	18 cents per minute
2007	17 cents per minute

**Option 2**

2005	\$X per audited number of services in operation as at relevant date + 14.25 cents per minute
2006	\$X per audited number of services in operation as at relevant date + 13 cents per minute
2007	\$X per audited number of services in operation as at relevant date + 12 cents per minute

3.11 The fixed charge (“\$X per audited number of services in operation”) will be calculated for each access seeker such that the total charge under Option 2

would be the same as the total charge under Option 1, assuming expected growth. The fixed charge is based on:

- the audited number of services in operation at 31 December 2004; and
- audited minutes for the year ended 31 December 2004.

3.12 The formula for calculating the fixed charge is as follows:

$$\text{\$X} = [(n * 19.25) - (n * 13.81)] / m$$

where:

n = audited number of minutes for the year ended 31 December 2004

m = audited number of services in operation at 31 December 2004

13.81 is chosen to reflect expected growth

3.13 For example:

*An access seeker might have 15 services in operation at 31 December 2004 and 15 services in operation at 31 December 2005. The access seeker might have terminated 2,000 minutes of the Optus DGTA service on the Optus' network for the year ended 31 December 2004 and 2,170 minutes for the year ended 31 December 2005.*

*The charge under option 1 for 2005 would be 19.25 cents multiplied by 2,170 minutes, or \$417.*

*The fixed charge component for Option 2 would be calculated as [(2,000 minutes multiplied by 19.25 cents) - (2,000 minutes multiplied by 13.81 cents)] divided by 15 services in operation at December 2005. In this example, the fixed charge would therefore be \$7.25 per audited number of service in operation and the per minute charge in 2005 would be 14.25 cents multiplied by 2170 minutes, or \$309.*

3.14 The fixed charge per audited number of services in operation calculated above will then be applied to the actual audited number of services in operation for 2005, 2006, and 2007. The precise calculation is contained in the undertaking.

3.15 Option 2 is designed to reduce possible distortions in the downstream fixed to mobile services market and to efficiently encourage calls to mobile users. This is because Option 2 gives retailers greater flexibility in the manner in which pricing can be structured. By offering a two-part pricing structure under Option 2, access seekers are able to pass on (at the retail level) the efficiency inherent in the access price structures (at the wholesale level).

3.16 Optus submits that the availability of prices in each option described above for the Optus DGTA Service satisfy the legislative criteria set out in Part XIC and should therefore be accepted by the ACCC because they are:

- prices revealed within a competitive market for mobile services; and
- prices that are consistent with the efficient cost of providing mobile termination services.

### **Term of undertaking**

- 3.17 Clause 2.1 of the undertaking states that it will take immediate effect from the time it is accepted by the ACCC and will continue until the earlier of:
- 31 December 2007; or
  - its termination, withdrawal or replacement (in accordance with the Act).
- 3.18 The undertaking also deals with the situations where:
- the Optus DGTA Service is supplied under an agreement that expires on or before 31 December 2004 – in which case, the pricing set out in Schedule 2 will apply from 1 January 2005; and
  - the Optus DGTA Service is supplied under an agreement that expires after 31 December 2004 – in which case, the pricing set out in Schedule 2 will apply from the date on which that agreement expires.
- 3.19 The expiry date of the undertaking is therefore consistent with the statutory criteria for the term of an undertaking. Section 152BV(2)(e) requires the expiry of an undertaking to occur within three years after the date on which the undertaking comes into operation.

### **Non-price terms and conditions**

- 3.20 The non-price terms and conditions for the Optus DGTA Service are set out in Schedules 1 and 3 of the undertaking. These terms and conditions are comprehensive and unambiguous in their scope and operation.
- Schedule 1 of the undertaking contains a description of the Optus DGTA Service. This service description is consistent with the declared service description for the Domestic Mobile Terminating Access Service and, whilst technologically neutral in respect of the method of carriage, is limited to the carriage of voice calls from a POI to a B-party directly connected to the Optus GSM network.
- 3.21 Optus submits that the terms and conditions for the Optus DGTA Service satisfy the legislative criteria set out in Part XIC and should therefore be accepted by the ACCC because they:
- (a) fulfil the essential non-discrimination criteria:  
  
Clause 3 of Schedule 3 clearly states that the undertaking is based on the principle that Optus will treat the access seeker on a non-discriminatory basis, as required by the applicable SAOs;
  - (b) are commercially reasonable:  
  
Terms such as suspension, termination and force majeure are commercially fair and palatable by objective standards;
  - (c) provide sufficient regulatory and commercial certainty:



The undertaking includes the scenarios of variation or replacement of the undertaking and the interaction between such events and the agreement for supply of the Optus DGTA Service; and

- (d) comply with relevant technical and operational codes and standards:

Optus and the access seeker are bound to comply with relevant technical standards and subject to codes and standards in force pursuant to Part 6 of the Telecommunications Act 1997.

- 3.22 The non-price terms of the undertaking are therefore comprehensive, balanced and compliant with the SAOs and reasonableness criteria in Part XIC. The application of the legislative criteria to the non-price terms and conditions in the undertaking is elaborated in sections 5 to 9 of this submission.

### **Other terms and conditions not specified**

- 3.23 The undertaking sets out the terms and conditions on which Optus will provide access seekers with the Optus DGTA Service. The scope of the Optus DGTA Service covered by the undertaking does not purport to cover the exact scope of the declared service description. As described above, the Optus DGTA Service is limited to the termination of voice calls on the Optus GSM network.

- 3.24 The undertaking does not purport to exclude Optus' obligations to provide those elements of the declared Domestic Digital Mobile Terminating Access Service that are not specified in the undertaking. To the extent that the undertaking does not cover the terms on which Optus will fulfil a particular SAO in relation to the declared service, the undertaking commits Optus to comply on terms that are either:

- agreed with the access seeker; or
- determined under an arbitration conducted under Part XIC of the Act.

- 3.25 To this end, clause 3.2(a) of the undertaking clarifies that:

- the undertaking does not specify all the terms and conditions on which Optus will comply with the applicable SAOs in relation to the declared service;
- additional terms and conditions will be negotiated and agreed between Optus and an access seeker in relation to the terms and conditions not specified in the undertaking; and
- failing agreement, those unspecified terms and conditions will be determined in accordance with Part XIC, including the arbitration process.

- 3.26 The undertaking is therefore unambiguous regarding the status of terms and conditions not included in the scope of the undertaking service. Optus notes that this issue has recently been considered by the ACCC in its assessment of undertakings submitted by another carrier for a declared service. This point is elaborated in the context of compliance with the SAOs in section 5 of this submission.

## 4. Legislative background

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### Threshold test for accepting the undertaking

- 4.1 Section 152BV of the Act sets out the criteria for acceptance of ordinary access undertakings by the ACCC in cases where the undertaking does not adopt the model terms and conditions set out in the telecommunications access code. The criteria for acceptance are set out in section 152BV(2) of the Act as follows:

*The Commission must not accept the undertaking unless:*

- (a) *the Commission has:*
- (i) *published the undertaking and invited people to make submissions to the Commission on the undertaking; and*
  - (ii) *considered any submissions that were received within the time limit specified by the Commission when it published the undertaking; and*
- (b) *the Commission is satisfied that the undertaking is consistent with the standard access obligations that are applicable to the carrier or provider; and*
- (c) *if the undertaking deals with price or a method of ascertaining price — the Commission is satisfied that the undertaking is consistent with any Ministerial pricing determination; and*
- (d) *the Commission is satisfied that the terms and conditions specified in the undertaking are reasonable; and*
- (e) *the expiry time of the undertaking occurs within 3 years after the date on which the undertaking comes into operation.*
- 4.2 The elements of items (a) to (e) above in this threshold test are elaborated below.

### Compliance with the standard access obligations

- 4.3 Section 152BV(2)(b) requires the ACCC to be satisfied that an undertaking is consistent with the SAOs, as listed in section 152AR of the Act.
- 4.4 A carrier or carriage service provider must comply with the SAOs in relation to an active declared service, if it supplies that service either to itself or to other persons. Section 152AR sets out four categories of SAOs relating to:
- the supply of an active declared service;
  - interconnection of the access provider's facilities with the facilities of a service provider;
  - the provision, timing and content of billing information; and
  - active declared services supplied by means of conditional access customer equipment to supply additional services.

- 4.5 In relation to the supply of an active declared service, section 152AR(3) of the Act states that:

*An access provider must, if requested to do so by a service provider:*

- (a) supply an active declared service to the service provider in order that the service provider can provide carriage services and/or content services; and*
- (b) take all reasonable steps to ensure that the technical and operational quality of the active declared service supplied to the service provider is equivalent to that which the access provider provides to itself; and*
- (c) take all reasonable steps to ensure that the service provider receives, in relation to the active declared service supplied to the service provider, fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself.*

- 4.6 Section 152AR(4) further states that these obligations in relation to the supply of an active declared service will not be imposed to the extent to which the imposition of the obligation would have any of the following effect:

- (a) preventing a service provider who already has access to the declared service from obtaining a sufficient amount of the service to be able to meet the service provider's reasonably anticipated requirements, measured at the time when the request was made;*
- (b) preventing the access provider from obtaining a sufficient amount of the service to be able to meet the access provider's reasonably anticipated requirements, measured at the time when the request was made;*
- (c) preventing a person from obtaining, by the exercise of a pre-request right, a sufficient level of access to the declared service to be able to meet the person's actual requirements;*
- (d) depriving any person of a protected contractual right.*

- 4.7 A contractual right referred to in section 152AR(4)(d) may include an exclusivity or bundling provision and need not continue under the same contract, or be identical to that which was in existence at 13 September 1996, to be afforded protection. It is the substance of the right, and not simply its form, which is protected.<sup>1</sup>

### **Reasonableness criteria**

- 4.8 In order to accept an undertaking, section 152BV(2)(d) of the Act requires the ACCC to be satisfied that its terms and conditions are reasonable.

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<sup>1</sup> *Seven Cable Television Pty Ltd v Telstra Corp Ltd* [2000] FCA 350.

- 4.9 The reasonableness of the undertakings will be assessed having regard to the non-exhaustive list of matters outlined in section 152AH of the Act. These are:
- whether the undertakings will promote the LTIE of carriage services or of services supplied by means of carriage services;
  - the legitimate business interest of the carrier or provider, and the carrier's or provider's investment in facilities used to supply the declared service;
  - the interests of all persons who have rights to use the declared service;
  - the direct costs of providing access to the declared service;
  - the value to a party of extensions, or enhancement of capability, whose cost is borne by someone else;
  - the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility; and
  - the economically efficient operation of a carriage service, a telecommunications network or a facility.
- 4.10 The application of the LTIE reasonableness criteria in Part XIC to the undertaking is set out in sections 6 to 8 of this submission. The other reasonableness criteria are applied to the undertaking in section 9 of this submission.

#### **Other threshold requirements**

- 4.11 Section 152BV(2)(a) of the Act sets out procedural steps that must be taken by the ACCC in order to accept an ordinary access undertaking if containing terms other than the model terms and conditions set out in the telecommunications access code. The ACCC must publish the undertaking, invite comments and consider submissions on the undertaking.
- 4.12 As there is no Ministerial pricing determination applicable to the Domestic Digital Mobile Terminating Access Service, the criteria in section 152BV(2)(c) of the Act are not relevant to the assessment of the undertaking.
- 4.13 In relation to the requirement regarding expiry time in section 152BV(2)(e) of the Act, this criteria is satisfied because the undertaking will expire within three years after the date on which the undertaking comes into operation.

### **5. Compliance with the standard access obligations**

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- 5.1 It is not necessary for an undertaking to specify the terms and conditions for compliance with every element of the SAOs. As stated by the ACCC in its final report on the assessment of Telstra's proposed line sharing service undertaking:

*“In considering consistency with the SAOs, the Commission considers there is no requirement that the undertaking set out a complete set of terms and conditions in respect of the declared service.”<sup>2</sup>*

- 5.2 Accordingly, the mere fact that the undertaking does not include all the terms and conditions applicable to the declared service does not render the undertaking incompatible with the requirement in section 152BV(2)(b).
- 5.3 As noted in section 3 above, the undertaking does not purport to exclude from arbitration or commercial agreement those price and non-price terms that are not included in the scope of the Optus DGTA Service. Optus acknowledges that the legislative scheme in Part XIC of the Act enables access seekers to seek ACCC determinations on such terms in the event that agreement is not reached on those terms and conditions.
- 5.4 The undertaking explicitly contains an obligation for Optus to supply the Optus DGTA Service in accordance with section 152AR. The SAOs are therefore made out in the terms of the undertaking, notably:
- section 3.1 states that in relation to the Applicable Standard Access Obligations, Optus will supply the Optus DGTA Service in accordance with the terms of the undertaking; and
  - the Applicable Standard Access Obligations are articulated in Schedule 4. Insofar as the Optus DGTA Service (or any part of the Optus DGTA Service) is a declared service, Optus undertakes to treat the access seeker on a non-discriminatory basis in accordance with the requirements of section 152AR of the Act. This expressly includes, without limitation, taking all reasonable steps to ensure that the technical and operational quality of the Optus DGTA Service is equivalent to that which Optus provides itself; and the same equivalence in respect of fault detection, handling and rectification, and quality and timing in relation to the same.

## **6. Long-term interests of end-users test to be applied to the undertaking**

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### **Interpretation of the LTIE test**

- 6.1 The term “long-term interests of end-users” (**LTIE**) is defined in section 152AB of the Act in terms of:
- the primary objectives (sub-section 152AB(2) of the Act); and
  - the secondary objectives, through which the primary objectives may be interpreted (sub-sections 152AB(4) and (6) of the Act).
- 6.2 The three primary objectives set out in section 152AB(2) of the Act which must be considered in assessing LTIE are:
- (a) the promotion of competition in the relevant markets;

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<sup>2</sup> ACCC, *A final report on the assessment of Telstra’s undertaking for the Line Sharing Service*, August 2004 at page 21.

- (b) achieving any-to-any connectivity in relation to services that involve communication between end-users; and
  - (c) encouraging the economically efficient use of and investment in infrastructure.
- 6.3 The LTIE assessment firstly requires identification of the relevant markets in relation to the undertaking. This is in order to determine whether the above three criteria are satisfied for each of those markets.

### **Relevance of market definition**

6.4 Market definition is a key factor in competition analysis because it provides the service, geographic, product and timing dimensions within which the existing degree of competition can be measured. Market definition therefore forms the basis for determining whether the LTIE will be served by assessing, in each of those relevant markets, the LTIE criteria.

6.5 Section 4E of the Act defines a market as:

*“... a market in Australia, and, when used in relation to any goods or services, includes a market for those goods or services that are substitutable for, or otherwise competitive with, the first-mentioned goods or services.”*

6.6 In Australia the market has been defined using a SSNIP test, which the ACCC’s *Merger Guidelines* of June 1999 elaborate as follows:

*“The process of market definition can be viewed as establishing the smallest area of product, functional and geographic space within which a hypothetical current and future monopolist would impose a small but significant and non-transitory increase in price (SSNIP) above the level that would prevail absent the merger. More generally, the market can be defined as the smallest area over which a hypothetical monopolist (or monopsonist) could exercise a significant degree of market power. This would only be possible if all sources and potential sources of close substitutes for the merged firm’s products have been included in the definition of the market.”*

6.7 It is important to note that the precise identification of markets is not the exhaustive step in the LTIE analysis. Rather, market identification is a tool for drawing the boundaries within which the elements of the LTIE criteria can be assessed. The non-exhaustive role of market definition in competition analysis has been highlighted by Federal Court, itself quoting the ACCC’s own position on the issue:

*“ACCC referred to market definition principles, as stated in the Trade Practices Act and elaborated by the High Court in Queensland Wire Industries Pty Ltd v The Broken Hill Proprietary Company Limited (1989) 167 CLR 177. However, ACCC noted the limited relevance of market definition:*

*‘In identifying relevant markets, Part XIC of the Act does not require the Commission to take a definitive stance on market definition.*

*Furthermore, over time, declaration itself might affect the dimensions of these markets, particularly in relation to the functional dimension. Accordingly, market analysis under Part XIC should be seen in the context of shedding light on how declaration would promote competition rather than in the context of developing ‘all purpose’ market definitions.’ ”<sup>3</sup> (emphasis added)*

6.8 Accordingly, Optus’ submission in support of its undertaking price and non-price terms is structured in terms of:

- (a) the identification of the relevant markets; and
- (b) in relation to each of those markets:
  - i) how the undertaking promotes competition;
  - ii) how the objective of any-to-any connectivity is achieved; and
  - iii) how the undertaking encourages economically efficient use of and investment in infrastructure.

6.9 As the ACCC and the courts have noted, the ultimate purpose of market analysis under Part XIC is the promotion of competition. Therefore, the price and non-price terms and conditions of access must be measured in terms of whether they promote competition. For these reasons, this submission separately analyses how the undertaking is consistent with the promotion of competition.

6.10 Optus submits that there are two markets that will be affected by the undertaking. These two markets are relevant for assessing the legislative criteria for reasonableness. They are:

- the mobile services market; and
- the fixed-to-mobile services market.

6.11 Optus submits that a separate market for the Optus DGTA Service does not exist and should therefore not be considered as part of this LTIE analysis. The following parts of this submission define the scope of the mobile services market and the fixed-to-mobile services market and apply the LTIE criteria to the terms of the undertaking.

### **Mobile services market**

6.12 Optus contends that it sells the Optus DGTA Service into a market for mobile services. The relevant products and services in this market include:

- origination services;
- termination services (including the Optus DGTA Service itself); and
- subscription services.

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<sup>3</sup> *Foxtel Management Pty Ltd v Australian Competition & Consumer Commission* [2000] FCA 589 at 153.

6.13 Optus sells these services as a cluster given the strong economies of scope between the services. This market definition overtly takes into account the two sides of the market including the origination/subscriptions services sold to retail mobile users and termination services to those mobile users sold at wholesale. Such a market definition is consistent with current judicial interpretation. In what could otherwise be described as a market for selling newspapers, the court has found that the relevant market included several elements other than provision of a product (the newspaper). Instead, the relevant market was defined as provision of services by the publication of regional newspapers containing news and advertising, and offering the opportunity for advertising.<sup>4</sup>

6.14 As noted by Professor Hausman:

*“... it is crucial to recognize that mobile services are an example of a ‘two-sided’ market. A two-sided market exists where customers demand and valuation of a product or service depends on the usage by the other side of the market.”<sup>5</sup>*

6.15 A SSNIP analysis demonstrates that the services (termination, origination and subscription) are all part of the same market. If an individual operator raised the price of termination services (SSNIP) to its subscribers, this increases the profitability of attracting additional subscribers and as a direct result increases competition for those subscribers. Hence, the price of subscription and origination services would adjust to attract subscribers and the higher termination revenue would be competed away. The SSNIP would be unsuccessful indicating a wider market definition, incorporating all the services is appropriate.

6.16 Professor Hausman has similarly noted that:

*“If the hypothetical monopolist only concentrated on one of the two prices, it would not achieve maximum profits ... For example, if a hypothetical monopolist of terminating minutes took over the mobile industry and raised terminating prices by 5% profitably, it could achieve even higher profits by decreasing the monthly subscription price to create increased mobile subscribers to receive incoming calls, both FTM and MTM.”<sup>6</sup>*

6.17 By corollary, Optus contends that a separate market for mobile termination services in which mobile operators have market power is unsustainable. The reasons for this include:

- An assertion of monopoly power in such a market does not account for the customer’s switching right. Mobile number portability (MNP) means that switching costs are low.
- A mobile operator does not possess bottleneck market power in relation to mobile termination to its network. A correct application of the market definition process would begin by analysing an area smaller

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<sup>4</sup> *Rural Press Ltd v Australian Competition & Consumer Commission* [2002] FCAFC 213.

<sup>5</sup> Appendix I at page 6.

<sup>6</sup> Appendix I at page 8.



than termination of calls on a particular network, if possible. A more appropriate area to begin with is the service that callers are actually demanding: termination of calls to a particular individual mobile service number that is issued to an end-user.

- Acceptance of the “single market” theory would mean that over 12 million markets exist in Australia for mobile termination, each of which is a monopoly. Such a market definition is unsustainable because:
  - i) On the demand side, mobile-to-mobile calls may be an adequate substitute for fixed to mobile calls; increasingly so with high mobile phone penetration levels.
  - ii) On the supply side, a mobile operator could not exercise a small but significant and non-transitory increase in price (**SSNIP**) because of the capacity of subscribers to switch networks, taking their “monopoly” with them.

6.18 The notion that a separate market for mobile termination exists has been dismissed by the courts in similar networked industries. The issue that a separate market could comprise a customer connection was closely considered in the *Mercury Energy* case. The concept that each customer connection was a market, and therefore that the service provided in respect of each customer connection was a monopoly, was dismissed as economically incorrect:

*“If the basis for market definition is taken to be substitutability, then for the local distribution function, each customer connection (eg a house) is a market, and the Mercury and PNZ distribution areas would consist of hundreds of local monopolies.”<sup>7</sup>*

6.19 The ACCC’s approach to mobile termination focuses on whether there are any substitutes for terminating access on a network. In finding that each customer connection was a monopoly, the ACCC in this case has adopted a “disembodied” quality to market definition. Again, the leading case of *Mercury Energy* demonstrated that courts have been highly critical of this regulatory approach:

*“There is one feature of the commission’s approach which we ourselves have found less than satisfactory. This is what we shall term its ‘disembodied’ quality, ie its focus upon markets as collections of substitute products (including services), quite unrelated to the business firms that undertake their production and marketing.”<sup>8</sup>*

6.20 As demonstrated by the economic evidence in the Appendices supporting this submission on the undertaking, the notion of infinite local monopolies by virtue of a separate mobile termination market is baseless. As such, Optus contends that there is a market for mobile services that is a national market,

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<sup>7</sup> *Power New Zealand Ltd v Mercury Energy Ltd and Commerce Commission* [1996] 1 NZLR 686 at 708.

<sup>8</sup> *Power New Zealand Ltd v Mercury Energy Ltd and Commerce Commission* [1996] 1 NZLR 686 at 705.

with a two-sided character consisting of the termination side and origination side.

- 6.21 Optus submits that the Optus DGTA Service undertaking needs to be assessed according to the LTIE criteria, having regard to the two-sided character of the mobile services market.

### **Fixed to mobile market**

- 6.22 In defining a fixed-to-mobile service market it is necessary to consider the demand side substitutability of potential substitutes. These would include fixed-to-fixed services and mobile-to-mobile services. Clearly, for the proportion of time a mobile user is away from their fixed line(s), fixed-to-fixed services are functionally not a substitute for fixed-to-mobile services and could not be considered in the same market.

- 6.23 Mobile-to-mobile services are increasingly becoming a substitute for fixed-to-mobile services. At the margin these services would provide a competitive constraint on the pricing of fixed to mobile services. This view is held by Professor Hausman:

*“... when the effect of marginal decisions are considered, an economic analysis demonstrates it is the only correct method to make pricing decisions – (therefore) substitution of MTM is sufficient to constrain FTM prices on the Optus network.”<sup>9</sup>*

- 6.24 Optus agrees that mobile-to-mobile services may act as an effective constraint on retail fixed to mobile at the margin and hence there is no rationale for regulation of the Optus DGTA Service.
- 6.25 Whilst fixed to mobile services are preselected by customers in a bundle of long distance and international services, Optus contends that fixed to mobile services are supplied in a separate market to long distance and international. Even though there are complementarities in the demand for the bundle of services, it may be that operators can compete on single services, such as by offering calling cards and over-ride codes.
- 6.26 Notwithstanding this, the affect of this undertaking on the fixed to mobile services market may be impacted by the pricing of any of those bundled services. For example, changes in the price of the Optus DGTA Service may be passed on in the bundle of preselect services via a change in the price of long distance services rather than fixed to mobile services.

### **Criteria for the promotion of competition**

- 6.27 Competition is the process of rivalry between firms, where each market participant is constrained in its price and output decisions by the activity of other market participants.
- 6.28 However, the test for “promotion of competition” in the context of the Act does not require the achievement of any particular outcome with respect to the

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<sup>9</sup> Appendix I at page 17.

level of competition in a market. As the National Competition Council noted in considering the application for access declaration of Carpentaria Transport:

*“The application of the test does not require the Council to prove that a sequence of future events will actually take place but rather to make a considered judgment as to the likely effects of access in respect of the promotion of competition in the market for the service.”<sup>10</sup>*

6.29 In the Sydney Airports case, the Australian Competition Tribunal (ACT) specifically rejected an argument that competition needs to be quantified. It was argued that the notion of “promoting” competition was stronger than “encouraging” competition; and that the test required a measurable advancement of competition. The ACT disagreed with this analysis:

*“The Tribunal does not consider that the notion of ‘promoting’ competition...requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased.”<sup>11</sup>*

6.30 It was also argued that the ACT needed to have a “degree of confidence” which was greater than a “mere likelihood” that competition would be promoted. The ACT again rejected the notion that any increase in competition needs to be capable of measurement before regulation is justified under the test for declaration under Part IIIA of the Act:

*“Rather, the Tribunal considers that the notion of ‘promoting’ competition...involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration.”<sup>12</sup>*

6.31 The ACCC has also rejected the notion that regulation must always result in an increase in competition. The test under Part XIC of the Act is that an increase in competition is a relevant, but not determinative, factor:

*“The question of whether competition will actually improve or increase will be highly relevant but is not determinative of this issue [of declaration]. The key issue when considering the proposed variation is whether it will assist in establishing conditions by which such improvement will be more likely to occur. This interpretation of promoting competition was endorsed by the Australian Competition Tribunal, which stated that the concept of promoting competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial.”<sup>13</sup>*

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<sup>10</sup> National Competition Council, *Reasons for its decision on the declaration of rail freight services on the line between Brisbane and Cairns*, provided by Queensland Rail, May 1997 at page 20.

<sup>11</sup> *Sydney International Airport* [2000] ACompT 1 (1 March 2003) at page 106.

<sup>12</sup> *Sydney International Airport* [2000] ACompT 1 (1 March 2003) at page 106.

<sup>13</sup> ACCC, *Proposed variation to make the GSM service declarations technology-neutral*, September 2001 at page 18, considering *Re Review of Declaration of Freight Handling Services at Sydney Airport* (2000), ATPR 40-775 at page 107.

6.32 In the context of Part XIC, the ACCC has adopted the position that the promotion of competition does not involve the achievement of a particular level of competition:

*“...the Commission considers that competition is promoted when market structures are altered such that the exercise of market power becomes more difficult; for example because barriers to entry have been lowered (permitting more efficient competitors to enter a market and thereby constrain the pricing behaviour of the incumbents) or because the ability of firms to raise rivals costs is restricted.”*<sup>14</sup>

6.33 This position is consistent with section 152AB(4) of the Act: in determining the extent to which a particular thing is likely to result in the promotion of competition, regard must be had to the extent to which the thing will remove obstacles to end-users of listed services gaining access to listed services.

6.34 As a result, the notion of promoting competition can be summarised as creating the conditions or environment for improving competition from what it would otherwise be. In order to achieve this, the undertaking would have to put in place better conditions for competition to occur than the current case.

#### **Any-to-any connectivity applied to prices**

6.35 The objective of achieving any-to-any connectivity in section 152AB(2)(d) is achieved if each end-user of a service that involves communication between end-users is able to communicate, by means of that service or a similar service, with every other end-user even where they are connected to different telecommunications networks.<sup>15</sup>

6.36 The ACCC has stated that when considering services that are inputs to an end-to-end service or distribution service (such as carriage services for pay television), the criterion of any-to-any connectivity will be given less weight compared to the promotion of competition and the efficient investment in infrastructure.<sup>16</sup>

6.37 Optus is particularly concerned with the reliance placed by the ACCC on:

- any-to-any connectivity; and
- market definition;

and how it considers these matters in the assessment of the undertaking prices.

6.38 The ACCC’s finding in relation to market power in the mobile termination market is critical to its decision about whether to regulate the service and hence to determine pricing principles. On page vi of its *Mobile Services Review (Final Report)*, the ACCC finds that:

*“all mobile operators – irrespective of their size – have market power when it comes to terminating calls on their network.”*

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<sup>14</sup> ACCC, *Mobile Services Review – Mobile Terminating Access Service*, June 2004 at page 11.

<sup>15</sup> ACCC, *Mobile Services Review – Mobile Terminating Access Service*, June 2004 at page 12.

<sup>16</sup> ACCC, *Mobile Services Review – Mobile Terminating Access Service*, June 2004 at page 12.

In fact, at page 50 of its Final Report, the ACCC states that:

*“the smaller is a network operator’s market size (in terms of subscribers) the greater is its market power”.*

However, then at pages xiv and pages 132-4 of its Final Report, in relation to “any-to-any connectivity” the ACCC expressly refutes this finding and says that:

*“...market forces are generally such that mobile operators will enter into agreements allowing termination of voice calls on their networks in the absence of declaration. However, where a new operator enters the market, the incentives for the established operators to interconnect with the new entrant may be insufficient to ensure any-to-any connectivity”.*

- 6.39 The ACCC’s views on market power are inconsistent and irreconcilable. On the one hand it says that smaller operators have the most market power, on the other hand it says that they have insufficient bargaining power.
- 6.40 Whilst recognising the requirement for any-to-any connectivity is important to declaration issues, its relevance to pricing decisions cannot be considered in terms of the requirement having symmetric application to prices. In other words, the ACCC’s view that all providers of mobile termination services have market power necessitates that all providers must be subject to the same degree of regulation. Optus submits that the ACCC’s approach to the any-to-any connectivity criterion and market power is unsustainable.
- 6.41 Optus believes that the offering of access to the Optus DGTA Service in this undertaking will allow any-to-any connectivity. In addition, as the prices offered are consistent with existing commercial rates and consistent with efficient costs, then they will encourage any-to-any connectivity.
- 6.42 Finally, Optus contends that undertaking will promote further uptake in subscription of mobile services, thereby enhancing the connectivity of telecommunications users. This is self-evident and consistent with the ability of the objective of ensuring that end-users to communicate is facilitated, not limited, by their choice of network. By offering two pricing options in the undertaking that enable the wholesale level to mimic retail price trends, end-users are more likely to enjoy the price benefits irrespective of their operator choice. Any-to-any connectivity is therefore promoted by the undertaking on several levels.

### **Efficient use of and investment in infrastructure**

- 6.43 An assessment of whether the undertaking encourages the efficient use of infrastructure is closely linked to the promotion of competition. This is because factors affecting competition, such as the terms and conditions of access to infrastructure, will determine the extent to which the infrastructure is utilised efficiently.
- 6.44 In relation to encouraging investment in infrastructure, it is important that consideration not only be given to the extent to which the undertaking will encourage investment in new infrastructure but also the extent to which continued investment in existing infrastructure will be encouraged.

6.45 Section 152AB(6) of the Act provides that in determining the extent to which a particular thing is likely to encourage the efficient use of infrastructure, regard must be had to the following matters:

*“(a) whether it is technically feasible for the services to be supplied and charged for, having regard to:*

*(i) the technology that is in use or available; and*

*(ii) whether the costs that would be involved in supplying, and charging for, the services are reasonable; and*

*(iii) the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks;*

*(b) the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope;*

*(c) the incentives for investment in the infrastructure by which the services are supplied.”*

6.46 Economists identify three types of efficiency: technical, allocative and dynamic. Technical efficiency requires that access service be priced based on production at least cost. Access prices below efficient costs will harm technical efficiency by discouraging efficient facilities-based entry.

6.47 Allocative efficiency generally requires that consumption decisions be based on prices that reflect marginal cost. However, in the presence of fixed and common costs, prices based on marginal costs will likely deter future investment. This will harm dynamic efficiency.

6.48 Access prices set below the efficient cost can undermine the incentive to invest in new low cost technology and quality improvements. Access prices should therefore be set to recover efficiently incurred costs, including a contribution to fixed and common costs. If these fixed and common costs can be recovered in the most efficient manner possible, the reduction in allocative efficiency can be minimised.

## **7. The LTIE is served by the undertaking prices**

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7.1 Optus' undertaking prices have been set having regard to:

- Optus' view on the future competitive price of Optus DGTA Service. Optus contends that the market will set a reasonable price for the Optus DGTA Service absent regulation.
- The estimated efficient cost of providing the Optus DGTA Service and international benchmarks of cost. These are discussed in detail in the following sections. Optus contends that the undertaking prices for the Optus DGTA Service may reasonably diverge from cost due to the two-sided nature of the market.

## Promoting competition

7.2 Competition for mobile subscribers, if effective, will compete away any above cost revenues from termination services such that the total amount mobile operators collect from mobile services tends towards cost. Optus contends that the mobile services market is highly competitive and the current level of mobile termination charges promotes competition in that market and the market for fixed to mobile services.

7.3 This is supported by Professor Hausman, who indicates:

*“Since I find that the mobile services market is effectively competitive in Australia, it follows that it is unlikely that the mobile termination prices will be set above competitive levels ...*

*... potential subscribers compare the economic value of their subscription to the price paid to decide whether to subscribe, as I discussed above. While the mobile operator sells terminating service for FTM to a fixed operator, it can only sell the services to its own subscribers. If a mobile operator sets its termination price above the competitive level, a competing operator can offer greater value to subscribers by charging a lower price that leads to more incoming calls. Thus, too high a termination price would lead to fewer subscribers and less terminating revenue so competition would not lead to this outcome.”<sup>17</sup>*

7.4 On this basis, Optus contends that the undertaking prices, which are set below prevailing market rates, are likely to promote competition in the mobile services market.

7.5 Furthermore, prices in a competitive, efficiently operating market may not reflect costs and might reasonably include an externality surcharge. As described by Professor Hausman:

*“The ACCC has not taken into account the extra consumers surplus (economic welfare) that arises to calling parties from their ability to reach individuals who subscribe to mobile telephony in a more convenient and timely manner.*

*“Where previous analysis of this problem and Prof. Armstrong has gone wrong is to miss the non-substitutable nature of the party receiving the call ... For example, if I want to reach my research assistant at MIT, I typically cannot substitute a call to another person. When (s)he subscribes to a mobile service, I receive a large amount of consumer surplus because I have the ability to call at any time to see how our research is proceeding.”<sup>18</sup>*

7.6 This capturing of this additional consumer surplus has been termed an “externality”, but may be more appropriately considered an efficient transfer of consumer surplus from fixed to mobile users to mobile users. Without it,

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<sup>17</sup> Appendix I at page 19.

<sup>18</sup> Appendix I at page 36.

there would be too little mobile subscription.<sup>19</sup> Therefore, the inclusion of an externality mark-up in the undertaking price will not lessen competition in either the mobile services market or the market for fixed to mobile call services.

- 7.7 By setting termination prices higher than the price of origination services mobile subscribers are able to capture some proportion of the benefits to others associated with their mobile subscription. This pricing is the normal outcome in a competitive two-sided market and is integral to the efficient operation of the market. If mobile subscribers are prevented from capturing the benefits of their subscription they will not have the efficient incentive to subscribe. As noted by Professor Hausman:

*“... the competitive strategy will be for a competitive mobile company to charge “above (TSLRIC) cost” prices for FTM calls and charge lower prices to subscribers than would occur without the two-sided nature of the market. Under effective competition, no excess profits will exist since they will be competed away, yet the results of prices not equal to (TSLRIC) costs will remain.”*<sup>20</sup>

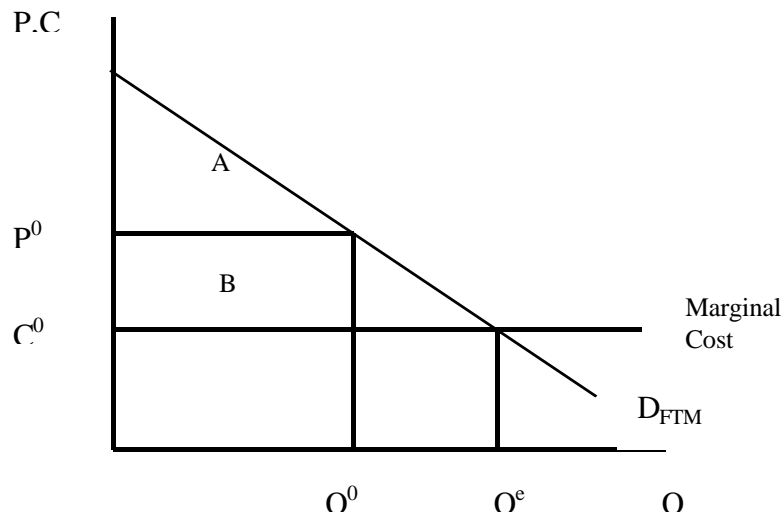
- 7.8 Optimal pricing might therefore involve each side of the market extracting or internalising the external benefits (which accrue to the other side of the market) created by their actions. Such pricing will promote competition in both the mobile services market and the market for fixed to mobile services.
- 7.9 By taking out a mobile subscription the subscriber creates potential benefits for all those other end-users (fixed and mobile) who now have the option of contacting that subscriber on a mobile phone. A positive demand for termination of calls to an individual mobile subscriber is clear evidence that other end-users derive a benefit as a result of that individual taking out a mobile subscription.
- 7.10 The size of the benefit is reflected in the individual demand for calls to a mobile subscriber. A demand curve showing the willingness of fixed line customers to call a particular subscriber could be drawn such that it reveals the size of the surplus (see below). If prices for fixed to mobile services are set above marginal cost ( $C^0$ ) at  $P^0$  the social surplus associated with FTM calls to that subscriber is equal to A+B. This amount of social surplus will be lost if the subscriber ceases to remain a subscriber.

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<sup>19</sup> We note that we have not included any value associated with the “option” to call a mobile subscriber not reflected in the actual calls made. This would increase the optimal externality charge.

<sup>20</sup> Appendix I at page 24.





7.11 Optus' undertaking prices have taken a conservative view on the size of the externality (see discussion below on efficient costing of the Optus DGTA Service and the associated CRA report).

#### Efficient use of and investment in infrastructure

7.12 Optus contends that the current mix of prices promotes efficient use of mobile infrastructure and efficient levels of subscription. As noted by Professor Hausman:

*The calling party receives economic value (consumers surplus) when it makes a FTM call. The more subscribers to mobile services, the more economic value it receives arising from the (network) externality. However, typically a caller cannot help pay the monthly subscription fees for a potential cellular subscriber. But it will increase profits if a mobile company can attract more subscribers since that will lead to more FTM and MTM calls. Thus, the competitive strategy will be for a competitive mobile company to charge "above cost" prices for FTM calls and charge "below cost" prices to subscribers. Under effective competitive, no excess profits will exist since they will be competed away, yet the results of prices not equal to costs will remain.*

*Thus, the ACCC has made a fundamental mistake in economic analysis by comparing the price of mobile terminating services to cost and, upon finding a divergence, deciding that a competitive problem exists. More seriously, the ACCC proposed regulatory pricing policy, by not allowing the externality to be reflected in prices, will lead to an economically inefficient outcome."*<sup>21</sup>

7.13 Efficient use of infrastructure in a two-sided market therefore would appear to reveal pricing "above cost" in one side of the market and pricing "below cost"

<sup>21</sup> Appendix I at page 24.

in the other side of the market. Such a construct can be shown to enhance welfare and is therefore in the LTIE, as Professor Hausman demonstrates:

*“...[by taking] into account the extra consumers surplus (economic welfare) that arises to calling parties from their ability to reach individuals who subscribe to cellular telephony in a more convenient and timely manner.”<sup>22</sup>*

- 7.14 In response to such arguments the ACCC has concluded that the marginal externality of a new subscriber is zero.

*“The externality benefit (i.e., what others are willing to pay to have more subscribers) from each additional subscription is reflected by the marginal external benefit curve (MEB). This is assumed to slope downwards as well, eventually becoming zero.”<sup>23</sup>*

- 7.15 However, the ACCC has made at least two errors. First, there is not a *perfect* correlation between the private values a person places on their individual subscription and the marginal external value of the mobile subscriber. This is necessary in order for the ACCC’s assumptions that the MEB is downward sloping, and eventually becomes zero, to hold. It concedes this point on page 166 of its decision but notes:

*“While this is true in an absolute sense, it is unlikely to be worthwhile chasing down small marginal efficiency gains at the expense of (possibly large) marginal efficiency losses from taxing FTM callers.”<sup>24</sup>*

- 7.16 As demonstrated by Optus’ internal data, the relationship between marginal external and marginal private benefits is weak. Professor Hausman notes:

*“The ACCC has also assumed that the later adopters of mobile phones create fewer external benefits than early adopters. Again, Optus data does not support this view. Optus has compared the incoming call minutes of early adopters against the rest of its customer base. Specifically, Optus has defined ‘early adopters’ as customers that have subscribed to Optus’ network for at least 120 months (10 years). It was found that these subscribers received an average of **[commercial-in-confidence]** call minutes annually, while the remainder of its customer base received an average of **[commercial-in-confidence]** call minutes per year. Optus then analyzed the call data of customers that had subscribed to Optus’ network for only either 19 or 20 months. These customers received, on average, **[commercial-in-confidence]** call minutes a year, while the prepaid customers (who are more likely that postpaid customers to be first time subscribers) **[commercial-in-confidence]** per year. Thus, again the ACCC’s assumptions are refuted by actual data.”<sup>25</sup>*

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<sup>22</sup> Appendix I at page 36.

<sup>23</sup> ACCC, *Mobile Services Review – Mobile Terminating Access Service*, June 2004 at page 163.

<sup>24</sup> ACCC, *Mobile Services Review – Mobile Terminating Access Service*, June 2004 at page 166.

<sup>25</sup> Appendix I at page 35.

- 7.17 The second and related mistake is observed by Professor Hausman where he notes that:

*“The ACCC mistake arises from using an aggregate analysis, rather than recognizing that the ability to call a person is a unique good and must be valued individually.”<sup>26</sup>*

- 7.18 Therefore, it is reasonable that there will be an efficient non-cost based structure of origination and termination charges. The question of whether the structure is welfare enhancing is an empirical question that is addressed in the welfare analysis conducted by Professor Hausman and by CRA in estimating the efficient price for the Optus DGTA Service.<sup>27</sup>

- 7.19 The ACCC has not calculated the value to the calling party from the fixed to mobile call. Professor Hausman undertakes such a calculation in the Appendix. Professor Hausman demonstrates that in an effectively competitive market for mobile services, the structure of prices between origination and subscription services proposed in the undertaking will enhance welfare and encourage more efficient investment in mobile and fixed infrastructure than the regulation proposed by the ACCC.

## **8. Undertaking price structures promote the LTIE**

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- 8.1 As described above, the Optus DGTA Service undertaking offers access seekers with the option to choose from two price structures. The first option is a cent per minute charge structure. The second is a two-part tariff structure that has a fixed annual charge per service in operation and a cent per minute charge.

- 8.2 The second option is designed to reduce possible distortions in the downstream fixed to mobile services market and to efficiently encourage calls to mobile users.

- 8.3 When setting the efficient price for mobile termination, n/e/r/a has advised that efficiency will be achieved when a mobile network operator (MNO) can:

*“... price termination such that no calls are inefficiently discouraged but, at the same time, all callers to marginal subscribers receive zero surplus. The latter condition is necessary if MNO’s are to have the socially efficient incentive to attract/retain subscribers – ie, if the market is to deliver an efficient number of subscribers. The former condition is required to ensure that there are an efficient number of calls terminated per subscriber.”<sup>28</sup>*

- 8.4 This suggests that any market failure in the mobile services industry derives from inefficiencies in the structure of prices for termination; not in the level of prices for termination. Indeed, higher termination revenues per subscriber than are currently charged, or offered in the undertaking, would likely be

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<sup>26</sup> Appendix I at page 30.

<sup>27</sup> Similar welfare analysis was undertaken by n/e/r/a on behalf of Optus and supplied to the ACCC during the Mobile Services Review.

<sup>28</sup> *Mobile Services as Jointly Produced Products: Concepts and Empirics*, A Report for Optus prepared by n/e/r/a, May 2004 at page 10.

efficient (and promote competition in the mobile services market) if they did not result in any significant inefficient reduction in the number of calls to each subscriber.

- 8.5 The first best solution is to therefore to have more efficient price structures for mobile termination. If the current reliance on per minute termination charges is inefficiently discouraging calls to subscribers then it is appropriate to replace these with fixed charges that are incurred irrespective of how many minutes are terminated and introduce marginal prices which are closer to (short-run) marginal cost.
- 8.6 Such a two-part tariff gives fixed line carriers the incentive to reduce fixed to mobile prices as the termination component of all marginal fixed to mobile calls per minute would fall. This will reduce any inefficient discouragement of calls and as a result will promote competition in the fixed to mobile services market.
- 8.7 Importantly however, it would not worsen mobile carriers' incentive to attract and retain mobile subscribers - as the termination revenue per subscriber would likely be relatively unchanged (as a result of the fixed charge).
- 8.8 The components of the Option 2 price structure serve at least two purposes:
- (a) The variable component, which is set below average cost but above incremental cost, increases efficiency when compared to uniform pricing at average cost.
  - (b) The fixed component encourages efficient investment in fixed and mobile infrastructure by allowing a transfer of consumer surplus from fixed to mobile users to mobile users.
- 8.9 This view is supported by Professor Hausman who notes that:
- “Economists typically find the structure of two-part tariffs to be favorable because the lower per minute charge will encourage additional FTM calling, to the extent that fixed providers decrease their prices accordingly. If the per monthly charge is set to be revenue neutral the mobile providers will not increase their monthly subscription rate so that mobile penetration will not decrease, as it likely will under the ACCC regulatory proposal. If FTM calling expands under a two-part tariff, competition among mobile providers may lead to somewhat reduced mobile subscription prices and greater mobile penetration. This outcome leads to an increase in FTM calls and an increase in mobile penetration and thus an increase in the LTIE.”<sup>29</sup>*
- 8.10 Optus therefore contends that the price structures contained in the undertaking will promote competition in the mobile services market and increase efficiency in both the mobile services and the fixed-to-mobile services markets by encouraging an efficient level of mobile subscription.
- 8.11 Optus is offering a three-year undertaking. Optus has engaged CRA to estimate the welfare-maximising level of Australian mobile termination

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<sup>29</sup> Appendix I at page 42.

charges. In nominal cents per minutes, assuming a CPI of 2.5%, a target price in the range of 16.93 to 17.03 cents per minutes is the estimated result of the CRA modelling. The price for the DGTA Service in each year of the undertaking has therefore been constructed such that the price of the service falls to the CRA-estimated efficient cost of mobile termination in calendar year 2007. This price is set as the 3<sup>rd</sup> year target, applicable in calendar year 2007.

- 8.12 As discussed further below, Optus submits that allowance should be made for a glide path down to the target price having regard to the legitimate business interests of Optus as an access provider.
- 8.13 Optus has commenced the glide path for the calendar year 2005 at 19.25 cents per minute. The prices in calendar 2005 and calendar 2006 provide access seekers with a discount on the expected trend in mobile termination rates (see section 9.14). Optus has estimated that by applying a trend line to the mobile termination charges that were agreed commercially between Optus and Telstra since 1 July 2000, yields a forecast termination rate for 2005 at 19.64 cents per minute. Optus has applied an additional discount to this figure and determined a start price for calendar year 2005 of 19.25 cents per minute. Optus has then applied a similar discount to the forecast mobile termination rate based on the trend line results, and determined a price for calendar year 2006 of 18 cents per minute. The glide path then continues, where for calendar year 2007 of 17 cents per minute which is consistent with the CRA modelling estimates discussed further below.
- 8.14 These prices will provide access seekers with a discount from existing rates, which are generally **[commercial-in-confidence]** cents per minute. On this basis, Optus has constructed a convex price path that provides access seekers on a rate of 21 cents in 2004 with a reduction of 1.75 cents per minute in 2005. This price is reduced by a further 1 cent to 18 cents in 2006. The price in 2007 will be 17 cents.

## **9. Other reasonableness criteria**

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### **Legitimate business interests of access providers**

- 9.1 As set out above, the reasonableness criteria in s 152AH of the Act also requires the ACCC to take into account:
- the legitimate business interest of the carrier or provider, and the carrier's or provider's investment in facilities used to supply the declared service;
  - the interests of all persons who have rights to use the declared service;
  - the direct costs of providing access to the declared service;
  - the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility; and

- the economically efficient operation of a carriage service, a telecommunications network or a facility.
- 9.2 The legitimate business interests of service providers has been included in the reasonableness criteria in s 152AH of the Act in recognition of the fact that investment in existing and new infrastructure will not be sustainable unless the ability of carriers and carriage service providers to recover the cost of providing services and to earn a commercial return on the investment in infrastructure is protected.
- 9.3 In considering access pricing in the context of Part IIIA, the Hilmer Committee recognised the need for protection of the legitimate interests of the facility's owner. The Hilmer Report stated that:

*"Access to a facility should only be declared if the legitimate interests of the owner of the facility are protected through a requirement for a "fair and reasonable" fee for providing access, and other appropriate terms and conditions."*<sup>30</sup>

- 9.4 The use of the word 'legitimate' in the context of the conflicting expectations of the service provider and access seeker raises questions as to the categorisation of business interests as legitimate. The ACCC has stated that in this respect its focus will be the commercial considerations of the service provider, noting:

*"The Commission will take into account the provider's obligations to shareholders and other stakeholders including the need to earn commercial returns on the facility. It will also aim to ensure that any undertaking provides appropriate incentives for the provider to maintain, improve and invest in the efficient provision of the service."*<sup>31</sup>

- 9.5 In its final decision with respect to Telstra's undertaking for domestic PSTN originating and terminating access, the ACCC stated that:

*"Telstra's legitimate business interests include its ability to at least recover the costs incurred by an efficient operator in providing PSTN originating and terminating access, including a normal commercial return on prudent investment commensurate with the risk. [ ... ] However, Telstra's legitimate business interests do not extend to achieving a higher than normal commercial return resulting from the lack of competition in the provision of originating and terminating access."*<sup>32</sup>

- 9.6 However, in interpreting the term 'legitimate business interests' in the context of the access regime set out in the National Gas Code, the Supreme Court of Western Australia has taken a different view of the legitimacy of service providers achieving a higher than normal commercial return:

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<sup>30</sup> *National Competition Policy*, Report by the Independent Committee of Inquiry, August 1993 at page 253.

<sup>31</sup> ACCC, *Access Undertakings: a Draft Guide to Access Undertakings under Part IIIA of the Trade Practices Act*, at pages 4-6.

<sup>32</sup> ACCC, *Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access - Final Decision*, June 1999 at page 33.

*“There was a submission from Alinta that in the context of this Code the recovery of monopoly prices or tariffs, above the level of economically efficient prices, should not be seen as “legitimate”. I find no support in the Act or the Code for such a view. While some expressions of economic theory and passages in the Hilmer Report would suggest that it is against the interests of society as a whole, at least in some situations, for a monopolist to be able to recover monopoly prices or exercise monopoly power in the market, that does not make the enjoyment by a monopolist of a monopoly an illegitimate business interest.”<sup>33</sup>*

9.7 This position has been reflected in more recent statements by the ACCC in relation to legitimate business interests of access providers as follows:

*“However, it is unlikely that the legitimate business interests extend to achieving a higher than normal commercial return through the use of market power. For example, an access price should not, in most cases, be artificially inflated because of a lack of competition in the supply of infrastructure services.”<sup>34</sup> (emphasis added).*

9.8 In setting the glide path to the target price, Optus has had regard to the significant adjustment in subscription and origination prices needed to implement the glide path without material negative impact on Optus and its mobile customers. As discussed, given the two-sided nature of the mobile services market, a regulated adjustment on one-side (the “termination” side) will affect the prices charged in the other side of the market (the “origination” side).

9.9 Optus’ legitimate business interests enable it to set a glide path that will allow it time to recover the lost termination revenue from other services including origination and subscription. This value will be in the order of **[commercial-in-confidence]** in the first year of the undertaking.

9.10 The glide path therefore has been formulated with regard to:

- Optus’ current investment plans, business planning and commercial pressures to maintain a reasonable return on investment and stability in cash flows and operations for the business over the next two years; and
- The long-term interests of end-users of mobile services and the inability of mobile operators to change prices for mobile services given a large proportion of customers are on contracted plans of between 12 and 24 months. A forced reduction in termination rates will result in increases in prices for mobile originating services. This is known as the “waterbed effect”.

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<sup>33</sup> *Re: Dr Ken Michael AM; ex parte EPIC Energy (WA) Nominees Pty Ltd & Anor* [2002] WASCA 231 (23 August 2002) at para 130.

<sup>34</sup> ACCC, *Telstra’s Undertaking for the Line Sharing Service*; Discussion Paper, December 2003 at page 11.

## Interests of access seekers

9.11 Section 152AH(1)(c) of the Act requires the interests of persons that have a right to use the declared service to be taken into account.

9.12 In interpreting this requirement, the ACCC has focused on other users' interests in a competitive environment stating that:

*“persons who have rights to use the declared service have an interest in competing for the custom of end-users on the basis of their technical and commercial merits. Their ability to compete in the supply of a service in a dependant market should be based on the cost or quality of their service relative to their competitors.”<sup>35</sup>*

9.13 Optus' undertaking prices promote the interests of access seekers because they are consistent with the rates that we expect would have been arrived at through commercial negotiations.

9.14 Specifically, Optus applied a trend line to the mobile termination charges that were agreed commercially between Optus and Telstra since 1 July 2000. Using this trendline to forecast future termination rates yields the following average rates for calendar years 2005, 2006 and 2007:

<b>Year</b>	<b>Average mobile termination charge</b>
2005	[commercial-in-confidence] cpm
2006	[commercial-in-confidence] cpm
2007	[commercial-in-confidence] cpm

9.15 As this table shows, these rates exceed Optus' undertaking rates. In this sense, the undertaking has taken into account the interests of access seekers and does not compromise those interests.

9.16 Furthermore, Optus has conducted imputation testing that demonstrates that the interest of access seekers criterion is satisfied.

9.17 Optus also contends that the price structures offered in the undertaking, in particular Option 2, allow access seekers to pass-through substantial reductions in the per minute termination rates in retail fixed-to-mobile prices. The Option 2 price structure provides access seekers with the commercial opportunity to lower the average termination rate by growing minutes per subscriber.

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<sup>35</sup> ACCC, *Telstra's Undertaking for the Line Sharing Service: Discussion Paper*, December 2003 at page 11.



## **Direct costs**

- 9.18 Consideration of the direct costs of providing access to the declared service has been included the reasonableness criteria in order to ensure that:
- access providers are compensated for the cost of providing access; and
  - access prices are not inflated by the access provider to recover any increase in costs arising from an increase in competition that access has facilitated.
- 9.19 Optus has estimated a top-down cost of mobile termination, the results of which are discussed in section 10 below. Optus' undertaking prices are consistent with the direct costs of providing the undertaking service.

## **Operational and technical requirements**

- 9.20 Section 152AH(1)(e) of the Act requires the operational and technical requirements necessary for the safe and reliable operation of a network to be taken into account in assessing the reasonableness of an undertaking.
- 9.21 The objective of this requirement is to ensure that access prices that are the subject of an undertaking do not lead to arrangements between access providers and access seekers that will lead to or encourage the unsafe or unreliable operation of a carriage service, telecommunications network or facility.
- 9.22 Optus contends that the undertaking offers an operationally and technically feasible service.

## **Economic efficiency**

- 9.23 This criterion concerns a general application of the efficiency criteria applicable under the LTIE test including the elements of dynamic, productive and allocative efficiency.
- 9.24 As the ACCC has stated:
- “An access price should encourage access providers to select the least-cost method of providing the service and provide those services most highly valued by access seekers.”<sup>36</sup>*
- 9.25 As discussed, Optus has relied on a number of data sources to devise its undertaking prices. Optus has not undertaken a bottom up cost modelling exercise, as it believes that given its operation in a competitive mobile services market (with four infrastructure competitors) and the age of the assets, its use of a top-down approach is reasonable (see section 10).

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<sup>36</sup> ACCC, *Telstra's Undertaking for the Line Sharing Service: Discussion Paper*, December 2003 at page 11.

## 10. Estimating efficient costs

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- 10.1 As discussed above, Optus is of the view that the mobile services market is effectively competitive and that termination prices currently revealed in the market are more efficient than the prices proposed by the ACCC in its Final Report. According to Professor Hausman's evidence quoted previously, "*it follows that is unlikely that mobile termination prices will be set above competitive levels*". Nevertheless, with the assistance of CRA, Optus has undertaken the additional analysis of calculating the consumer welfare maximising efficient cost of providing the Optus DGTA Service in Australia for 2005, 2006 and 2007.
- 10.2 This cost modelling confirms that the expected trend in competitively set termination prices was likely to promote competition in the relevant markets and to encourage efficiency in investment and use of telecommunications infrastructure.
- 10.3 The modelling process involved:
- calculating the Forward Looking – Long Run Incremental Costs (**FL-LRIC**) of the Optus DGTA Service using Optus' operating cost information and assets; and then
  - applying the Rohlfs model, the model developed by the UK regulator to assess the welfare impacts of regulation, to determine the mark-ups over FL-LRIC that would enable Optus to recover its costs in a manner that best promotes the LTIE.
- 10.4 The mark-ups discussed further below are consistent with Professor Hausman's evidence. These mark-ups are to allow recovery of fixed and common costs and to reflect the externality value that fixed-to-mobile callers receive from mobile subscribers. The manner in which these mark-ups are calculated is described further below, but is consistent with Ramsey-Boiteaux pricing.
- 10.5 As summarised below, on the basis of the modelling work undertaken by CRA and the review of Professor Hausman, Optus contends that the modelling results provide a conservative estimate of the efficient cost of the Optus DGTA Service and would therefore encourage efficient use and investment in infrastructure associated with that service. Optus submits that the modelling results are in the long-term interests of end-users because:
- competition is promoted through the setting of efficient levels of mobile subscription and fixed-to-mobile call volumes; and
  - efficient (allocative, technical and dynamic) use of and investment in infrastructure is promoted through the application of Ramsey pricing to recover fixed and common costs; and
  - consumer welfare is maximised by reflecting the externality benefit in the price of the Optus DTGA Service.
- 10.6 This section of Optus' submission provides an overview of the methodology used to arrive at the termination charges contained in Optus' undertaking. For

a more detailed description of the modelling methodology, please refer to CRA's report '*The Long Run Incremental Costs of Mobile Termination*', provided as an appendix to this submission.

## **Incremental costing methodology**

### *FL-LRIC*

- 10.7 As mentioned above, a Forward Looking Long Run Incremental Cost (**FL-LRIC**) model has been developed for the purposes of estimating the welfare-maximising Optus DGTA Service charge.
- 10.8 FL-LRIC modelling involves explicitly identifying all incremental costs of the service in question. Fixed and common costs are estimated separately and recovered through a mark-up over and above incremental costs.
- 10.9 This differs to a TSLRIC approach in which the whole service, including any fixed and common costs, is modelled as the relevant increment.
- 10.10 The FL-LRIC model is also consistent with the statutory criteria. The reasonableness criteria in section 152AH(1) of the Act include the direct costs of providing access, and economic efficiency. In particular:
- the top-down model is widely recognised as producing a conservative but reasonable approximation of efficient costs; and
  - the FL-LRIC model identifies all incremental costs, whilst fixed and common costs are separately calculated;

### *Top down model*

- 10.11 A top down cost model was developed for the purpose of estimating the efficient costs of the Optus DGTA Service. It was considered that a top-down model based on Optus' actual network configuration would lead to a reasonable but conservative approximation of the efficient costs of service provision because:
- a substantial proportion of investment in the Australian mobile networks has been relatively recent, therefore minimising the potential for costs to reflect technological obsolescence in the network; and
  - Optus mobile network investment has been undertaken in a competitive market environment. Economic theory demonstrates that competition will provide strong incentives for carriers to maximise efficiencies in the design, operation and maintenance of networks.
- 10.12 A top-down approach to modelling the cost of mobile termination services has precedence in international regulatory processes. To illustrate, CRA notes at pages 8-9 of Appendix II that:

*“...while a bottom-up model was developed in the UK, the UK Competition Commission noted that “there was, therefore, a real risk that*

*the model had created a hypothetical network that could be unrealistic”<sup>37</sup> and consequently the Commission adjusted the bottom-up estimates to reflect the actual networks of the UK operators, such as in relation to the number of base stations. Analysys in reference to the model for the Swedish regulator noted:*

*However, distinct from the fixed network, mobile operators in Sweden have been characterised by competitive infrastructure provision since the launch of GSM operations. On this basis, it is unlikely that any mobile operator has developed with significant inefficiencies, as such inefficiencies would be unlikely to be sustainable over a number of years.<sup>38</sup>*

*The final Swedish estimate reflects a hybrid model that includes a top-down element drawn from operators’ actual designs.”*

#### *Choice of operator*

10.13 The FL-LRIC of a service is sensitive to the size of the firm that is modelled. This is because, in general, larger firms benefit from economies of scale leading to lower per unit service costs.

10.14 We note that the UK Competition Commission has espoused that regulated mobile termination charges should be based upon the costs that would be incurred by a firm with a level of market share achievable by all operators in the market:

*“It would be wrong, however, to penalize an MNO with a greater than average traffic market share for its success in winning customers...we therefore decided that the appropriate cost for all operators, in the short term, should be based on a 20 per cent market share, being the approximate share of T-Mobile and O2 [i.e. the smallest operators] in 2002. By 2006, the appropriate cost for all operators would be based on the DGT’s original estimate of the share for that year of an average existing MNO following the launch of Hutchison 3G, being a 22 per cent market share.”<sup>39</sup>*

10.15 This approach also appears to have been utilised in Malaysia and Sweden.<sup>40</sup>

10.16 Despite the sound economic justification that exists for using this methodology, Optus has taken the highly conservative approach of using its own costs as input into the cost model rather than an estimate of industry costs. This was largely due to the lack of available data to Optus on incremental costs across the industry. We do however note that there is strong

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<sup>37</sup> United Kingdom Competition Commission, *Calls to mobiles report*, 2003, para. 2.274. A discussion of the adjustments made to bring the LRIC numbers in line with costs is at para. 2.291ff.

<sup>38</sup> Analysys, *Documentation for the Hybrid Mobile LRIC Model*, 29 March 2004, at page 5.

<sup>39</sup> United Kingdom Competition Commission, *Calls to mobiles report*, 2003, para. 2.278.

<sup>40</sup> See Malaysian Communications and Multimedia Commission, *A consultation paper on access pricing*, 13 May 2002 at page 16 and Analysys, *Documentation for the Hybrid Mobile LRIC Model*, 29 March 2004, at page 4.

evidence that Optus approach would underestimate efficient increment cost, including:

- The fact that Optus has a larger market share than that of other operators in the Australian market including Vodafone and Hutchison and will therefore, as noted by the UK Competition Commission, be penalized by using its own costs.
- The evidence of economies of scale such as the study by Foreman and Beauvais discussed by CRA in its study of International benchmarking.<sup>41</sup>
- The undertaking lodged by Vodafone in December 2004 that includes an estimate of the cost for mobile termination above that estimated by CRA for Optus.

#### *Stand-alone mobile business*

10.17 Optus has modelled the efficient incremental costs of Optus DGTA Service provision that would be incurred by Optus mobile business on a stand-alone basis.

#### *Cost data source*

10.18 The costs of Optus' mobile business for the year ended March 2004 formed the basis for Optus' calculation of the incremental costs of providing the Optus DGTA Service.

10.19 Costs related to coverage, data, customer acquisition, customer service and overheads are not included in the incremental cost pool. The costs associated with Optus' subsidiary mobile businesses were excluded from the cost model.

#### *Costing assets on current basis*

10.20 Incremental network elements were identified and costs were calculated for the assets in Optus' mobile business that are utilised in the delivery of mobile services. The incremental asset cost were based on a calculation including:

- historic acquisition cost;
- the age of the asset; and
- 'useful life', that is, the expected economic life of the asset.

10.21 In order to 'roll forward' the historic acquisition cost of each relevant asset to derive a proxy of current cost, asset price trends were adopted for a number of asset categories.

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<sup>41</sup> RD Foreman and E Beauvais, Scale Economies In Cellular Telephony: Size Matters, *Journal of Regulatory Economics*, 16 (3) November 1999 at pages 297-306.

### *Capital costs – depreciation*

10.22 A tilted annuity approach has been applied to the current cost estimate of each asset category that seeks to ensure that:

- the cost of all assets are recovered in full over their useful life; and
- a time path of cost recovery is established that mimics the price path that would be charged in a competitive market as the price of inputs change.

### *Capital costs – return on capital*

10.23 The cost model allows for Optus to earn a reasonable return on capital invested in its mobile business. This return was calculated using the Capital Asset Pricing Model (CAPM). The approach that was adopted was designed to be broadly consistent with previous ACCC decisions.

10.24 Overall, a vanilla WACC of **[commercial-in-confidence]**% and a post-tax nominal WACC of **[commercial-in-confidence]**% have been estimated.

### *Allocation of incremental costs to services*

10.25 The incremental costs of mobile services were allocated to the mobile services to enable identification of the incremental costs attributable to the Optus DGTA Service. Specifically, the incremental costs were allocated amongst the following services:

- on-net calls;
- mobile to fixed calls;
- off-net mobile to mobile calls;
- termination of calls from other mobile and fixed operators;
- SMS and data services; and
- subscription.

10.26 These cost allocations were performed on the basis of the extent to which the services give rise to the non-network costs, and also according to various routing factors for the network costs. Routing factors based upon Optus' network configuration were developed by Optus' engineers for each of the following asset categories:

- BSS (including base station controller and base transceiver stations);
- NSS (including mobile switching centre);
- Home Location Register;
- STP/ MNP (including signal transfer point and mobile number portability);

- Gateway switching; and
- Transmission.

### **Estimation of welfare maximising termination charges**

10.27 A mark-up over the FL-LRIC of the Optus DGTA Service was calculated that would enable Optus to recover its costs in the manner that best promotes the LTIE.

10.28 To estimate the efficient cost of the Optus DGTA Service, the model developed by Dr Rohlfs for the UK telecommunications regulator, Ofcom, was applied. This model was used by Ofcom, and subsequently Ofcom, to assess whether their proposed regulated termination rates would generate net welfare gains. The remainder of the submission refers to this model as ‘the Rohlfs model’.

10.29 To summarise, the Rohlfs model allocates fixed and common network and non-network costs amongst mobile services in a manner that optimally accounts for:

- Ramsey-Boiteux pricing; and
- externalities.

10.30 CRA clarifies that the structure of the Rohlfs model:

*“... reflects the main intuition of Ramsey-Boiteux pricing that welfare can be maximised by recovering fixed and common costs in a manner that minimises distortions to demand. The model goes beyond ‘simple’ Ramsey-Boiteux pricing to capture the complexity of the structure of demand for mobile services, including cross-elasticities of demand that take the form of externalities.”<sup>42</sup>*

10.31 For the purpose of developing Optus’ undertaking, the Rohlfs model was adjusted to account for Australian market conditions. As such, cost, price and demand parameters that were considered the best estimates for the Australian market were used as inputs.

10.32 In the attached evidence from CRA, there is a detailed response to the ACCC’s concerns about the use of Ramsey pricing. However, Optus makes two observations in this submission to address two of the ACCC’s main contentions.

10.33 First, the ACCC states in its *Final Report* at page 210 that, “cross-elasticity estimates are virtually non-existent and that their misapplication could generate inferior efficiency-in-use consequences than they try to correct for.” In response, Optus provides evidence from CRA as follows:

*“First, the factual basis for the Commission’s statement is questionable....the existing and available own-price and cross-price elasticity estimates derived from econometric studies, while displaying a*

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<sup>42</sup> Appendix II at page 2.

*degree of uncertainty, appear well within the range that economic regulators accept as a reasonable basis for informing regulatory analyses and decisions.*

...

*More generally, there is no economic rationale for preferring an entirely arbitrary approach, such as EPMUs, that is in conflict with the commonly accepted understanding of the relative elasticities and of choosing the best available estimate of the welfare-maximising charge level based on market information. While the difficulty of designing effective regulation is a key matter to be taken into account in deciding whether any regulation should be imposed, if charges are to be regulated then it is critical that it takes account of all available information.”<sup>43</sup>*

- 10.34 Secondly, the ACCC strongly asserts that in its Final Report that Ramsey-Boiteux pricing requires market power. Optus provides evidence from CRA which rebuts this assertion for a number of reasons. The first is that this view of market power is too narrow in that the ACCC’s view would mean that any method of recovering fixed and common costs would require market power. The second is that the ACCC’s view is inconsistent with the way in which Ramsey-Boiteux pricing is defined. As CRA states:

*“... in competitive markets where production involves fixed and common costs, firms may be forced to price in accordance with Ramsey-Boiteux principles so as to maximise the volumes over which to recover their costs. A firm that instead sought to target only the more valuable customers may not be able to compete against the lower unit costs of ‘full market’ players.”<sup>44</sup>*

- 10.35 A more detailed commentary is set out in Appendix II.

- 10.36 Importantly, Optus’ use of the Rohlfs model has been applied in a conservative manner. In particular, as noted by CRA:

*“... the Rohlfs model also includes a number of constraints on particular parameters reflecting Oftel’s assumption that externalities are largely internalised. We have retained these constraints to ensure a conservative approach, although we note that the alternative approach of using empirically derived values for these parameters would lead to a higher optimal termination charge being estimated.”<sup>45</sup>*

#### *Fixed and common costs*

- 10.37 Fixed and common costs are allocated as a mark-up above the FL-LRIC to determine the efficient cost of the Optus DGTA Service.

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<sup>43</sup> Appendix II at page 16.

<sup>44</sup> Appendix II at page 49.

<sup>45</sup> Appendix II at page 2.



### *Elasticities*

10.38 The Rohlfs model requires input a number of elasticities. The elasticities adopted for Optus' modelling purposes comprised the average of the results of a range of available econometric studies. For example, the following table includes the key elasticities:

Subscription own-price elasticity	-0.43
Mobile outgoing own price elasticity	-0.59
Fixed-to-mobile own price elasticity	-0.31
Subscription fixed-to-mobile cross price elasticity	-0.18

### *Externalities*

- 10.39 The basis for the inclusion of an externality markup is discussed in Section 7. Optus' modelling has conservatively incorporated the Rohlfs-Griffin factor (**RGF**) that was considered as being reasonable by Oftel.
- 10.40 By way of background, Oftel considered that the RGF, which describes the ratio of total social value of subscription to the private value accruing to the mobile subscriber, would lie in the range of 1.3 – 1.7, and chose the midpoint of 1.5 for its modelling.
- 10.41 Despite there being significant evidence that the actual RGF lies in the region of 2, Optus' cost model has retained the RGF value of 1.5. Use of this RGF has reduced the cost models' estimate of the efficient Optus DGTA Service charge below levels that Optus believes to be optimal.

### *Waterbed effect*

- 10.42 An area that was considered during the modelling process was the extent to which mobile retail prices would rise in response to a reduction in termination charges. In its cost-benefit analysis of the impacts of termination regulation in the UK, Ofcom assumed that there would be a complete waterbed effect – that is, that mobile carriers would completely offset any lost termination revenues through increased prices for other mobile services, and that profits would remain unchanged.<sup>46</sup> The UK Competition Commission also believed that most of the lost termination revenues would be recovered from the retail market.<sup>47</sup>
- 10.43 Optus believes that the waterbed effect would be complete. This view is supported by CRA when they note that:

*“In light of the indicators of vigorous competition in the Australian mobile market, we consider it reasonable to assume a full waterbed effect in our modelling.”<sup>48</sup>*

<sup>46</sup> See, for instance, Ofcom, *Statement on Wholesale Mobile Voice Call Termination*, 1 June 2004, para. 6.117 (first bullet point).

<sup>47</sup> United Kingdom Competition Commission, *Calls to Mobiles report*, 2003, para 2.563.

<sup>48</sup> Appendix II at page 23.

10.44 Indeed, the UK Competition Commission concluded that “there will be a waterbed effect, i.e. most of the reductions in revenue from termination charges being capped will be recovered from the retail market.”<sup>49</sup>

### Model Results

10.45 Calibrating the model as described by above produces the following estimates of the efficient cost of mobile termination. The cost modelling demonstrates that the efficient, welfare maximising price of mobile termination is therefore around 17 cents per minute.

	2004-05	2005-06	2006-07
Cents per minute (cpm) (in 2004-05 Australian dollars)	17.03	16.56	16.11
Nominal cpm (assuming CPI of 2.5%)	17.03	16.97	16.93

10.46 It is useful to note that when interpreting these results, CRA notes that:

*“The estimated termination charges represent a conservative estimate of the welfare maximising level of termination charges based on robust economic theory encapsulated in Oftel’s Rohlfs model and the best available information on the relevant parameter values for the Australian market. While there is a degree of uncertainty over some of the parameter values, we do not consider the extent of the uncertainty to be so great as to suggest that the adoption of an alternative ‘rule of thumb’ approach to recovering costs, such as an Equi-Proportional Mark-up approach, would be any more likely to maximise overall welfare.”*<sup>50</sup>

10.47 Optus asked Professor Hausman to consider the results produced by CRA. He responded as follows:

*“Optus has asked me to comment on the CRA report and its estimation of LRIC. I have significant experience in LRIC as I have written a number of academic papers on LRIC in telecommunications. I have also been involved in applications of LRIC, and I have provided testimony before the US FCC and the California Public Utility commission and gave an invited presentation at an ACCC conference in 1997. I have read the CRA report, The Long Run Incremental Cost of Mobile Termination. I agree with the general approach of calculating a forward looking measure of LRIC in the CRA report. Overall, CRA appears to have made reasonable choices in its cost modeling approach.”*<sup>51</sup>

<sup>49</sup> United Kingdom Competition Commission, *Calls to Mobiles report*, 2003, para 2.563.

<sup>50</sup> Appendix II at page 3.

<sup>51</sup> Appendix I at page 43.

- 10.48 On the basis of the modelling work undertaken by CRA and the review of Professor Hausman, Optus contends that these are a conservative estimate of the efficient cost of the Optus DGTA Service and would therefore encourage efficient use and investment in infrastructure associated with that service.

### **International comparisons**

- 10.49 International benchmarking of mobile termination costs is a common practice in many regulatory systems and is universally accepted as a useful comparative tool for assessing access pricing. As CRA has noted in its *International Benchmarking of Mobile Termination Charges – An Update*:

*“International benchmarking can provide a useful source of information for regulators in estimating the costs of supplying a service”.*<sup>52</sup>

- 10.50 The rationale for benchmarking in telecommunications in Australia is well-recognised. The Productivity Commission noted in its *International Benchmarking of Australian Telecommunications Services* (March 1999) that:

*“The chief purpose of benchmarking is to identify performance gaps and areas of potential improvement. This may be done by measuring the performance achieved by a better performing business engaged in the same or similar activity, or by a business regarded as ‘best practice’. Alternatively, the current performance can be measured against past performance to gauge whether improvement is occurring over time”.*<sup>53</sup>

- 10.51 The usefulness of benchmarking can, however, be limited according to the comparators under consideration. In the case of mobile terminating access charges, this means that the jurisdictions being used to establish a benchmark (and the inputs into the benchmarking analysis) must be relevant and proportionate. As CRA continues in its comments from above:

*“However, for international benchmarking to yield meaningful information, it must take into account any significant differences in the supply conditions and operating environments between the comparator countries and the jurisdiction for which costs are being estimated.”*<sup>54</sup>

- 10.52 Accordingly, the purpose of the benchmarking study undertaken by CRA provides useful comparators which are relevant to determining the reasonableness of the undertaking prices for the Optus DGTA Service.

- 10.53 The reasonableness of Optus’ undertaking prices is supported by a comparison of Optus’ proposed rates against overseas regulators’ cost estimates of mobile termination.

- 10.54 CRA has expanded and updated its previous international benchmarking analysis, which was submitted to the ACCC in August 2003 to inform the Mobile Services Review.

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<sup>52</sup> Appendix III at page 1.

<sup>53</sup> Productivity Commission, *International Benchmarking of Australian Telecommunications Services*, March 1999 at page 2.

<sup>54</sup> Appendix III at page 1.

10.55 CRA's updated report builds on its previous analysis by specifically taking into account:

- the ACCC's use of international benchmarking as reported in its Final Decision;
- the ACCC's comments on CRA's previous analysis;
- Analysys' June 2004 report, *Examination of mobile termination costs – Final Report for ACCC*;
- various other new mobile termination cost regulatory decisions, including: Belgium, Austria, Sweden, and Malaysia; and
- a study reviewing international cost models reported by the New Zealand Commerce Commission.

10.56 The general approach undertaken by CRA for its analysis was to:

- (a) select various overseas regulators' cost estimates of the mobile termination service; and then
- (b) adjust those costs to remove the impact of factors that were considered would lead to material cost differences between those countries and Australia.

10.57 In relation to a), CRA selected cost estimates adopted by regulators from the UK, Sweden and Malaysia as the basis for its benchmarking exercise

10.58 CRA summarises its approach to b) as follows:

*“Specifically, we used PPP-adjusted 10-year average exchange rates and we concentrated on the differences in cost of capital, traffic volumes and proxies for geographic terrain (namely network coverage and base stations).”<sup>55</sup>*

10.59 Overall, CRA estimated that using adjusted benchmarks of mobile termination costs in the UK, Sweden and Malaysia, the TSLRIC of the Optus DGTA Service provision in Australia would fall in the range of 9.9 cpm and 20.1 cpm. Optus' cost estimate, arrived at through the modelling process outlined in section 9 of this submission, falls within this range.

10.60 Importantly, the international cost estimates that formed the basis for CRA's benchmarking exercise are based upon sub-optimal pricing structures – that is, they do not take into account externalities or Ramsey pricing principles. On that basis, we would expect that analysis of the international costs benchmarks would understate the efficient cost of service provision in Australia.

## **11. Non-price terms and conditions are reasonable**

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11.1 The non-price terms and conditions in the undertaking are reasonable, satisfy the statutory criteria and should therefore be accepted by the ACCC because:

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<sup>55</sup> Appendix II at page 37.

- they are based on the Telecommunications Access Forum (**TAF**) Code, which has been recognised as the standard default terms and conditions for access;
- they are commercially reasonable and are accepted good industry practice; and
- the SAOs set out in the undertaking provide a sound basis for equivalent access, quality and timeliness.

## **12. Confidentiality**

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- 12.1 As stated in section 2.4 of this submission, Optus is providing the ACCC with this submission and five appendices in support of its undertaking for the Optus DGTA Service. These reports, opinions and studies are relied on by Optus to support the reasonableness of the price and non-price undertaking terms and conditions.
- 12.2 The ACCC will appreciate that this submission and the content of these appendices contain information which is confidential in nature and would compromise Optus' commercial position and cause damage to Optus' business if made publicly available in the current form provided to the ACCC.
- 12.3 Optus intends to prepare public versions of this submission and the Appendices. These will be provided to the ACCC in the near future for dissemination as the ACCC so determines. Accordingly, Optus requests that the ACCC keep this submission and these Appendices confidential until these public versions are prepared.
- 12.4 In all other respects, Optus proposes to institute procedures by which all confidential information supplied by Optus may only be disclosed by the ACCC to persons approved of in writing by Optus, where those persons have signed confidentiality agreements that are acceptable to Optus.