



# **Payments to Telstra for Lease/Purchase of Fixed-Line Assets**

A report for Optus

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## **Project Team**

Greg Houston

Brendan Quach

Luke Wainscoat

Dale Yeats

NERA Economic Consulting  
Darling Park Tower 3  
201 Sussex Street  
Sydney NSW 2000  
Tel: 61 2 8864 6500 Fax: 61 2 8864 6549  
[www.nera.com](http://www.nera.com)

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## Executive Summary

This report has been prepared by NERA Economic Consulting (NERA) at the request of SingTel Optus Pty Ltd (Optus). Its subject is the appropriate treatment of payments from NBN Co to Telstra for the purchase or lease of assets within Telstra's fixed-line network (the NBN revenue), where those assets also form part of the regulatory asset base (RAB) used to determine regulated access prices for declared fixed-line services (declared services).

Our report identifies two distinct approaches to incorporating the NBN revenue into the fixed-line services model (FLSM) used to set cost-based access prices for fixed-line services:

- the **cost approach** – whereby the value of relevant assets is reduced, in recognition of the fact that some of the cost is recovered from NBN Co; and
- the **revenue approach** – whereby the RAB, or the annual revenue requirement derived from it, is reduced to reflect the amount of revenue received by Telstra for providing access to assets that are also included within the RAB.

This report assesses which approach would best promote the long term interest of end-users (LTIE) over the period of the next declaration period – to June 2019 – reflecting the fact that the customer access network (CAN) is to be de-commissioned or sold to NBN Co.

In our opinion, the LTIE is best served by the methodology that delivers the lowest wholesale access price, providing this would lead to a material increase in the utilisation of the CAN during the transition to the NBN without imposing significant capacity-related costs upon the access provider. On the facts available to us, adopting the revenue approach is more likely to be consistent with the LTIE than the alternative, cost approach, since the latter may have the effect of allowing Telstra to earn a return that is greater than its efficient costs, including a normal return on the CAN.

### Cost approach

The cost approach would be applied as follows:

- for assets that are to be transferred to NBN Co or otherwise disposed of, Telstra's RAB would be reduced by the value of those assets that no longer provide declared services – this would require the RAB value of each asset being disposed of to be calculated or estimated; and
- for shared assets, the relevant portion of their RAB value would be allocated to the declared services, with the other portion assumed to be recovered through revenue received from NBN Co.

Application of the cost approach to shared assets would require a method to apportion the RAB value of the shared assets between services. The Australian Competition and Consumer Commission (ACCC) has previously shared costs according to the extent to which each respective service uses the relevant asset.

In our opinion, this method has the potential to support the LTIE, since it would encourage the efficient use of the CAN through prices that reflect the long run cost of the assets employed. However, this assumes that the allocation of costs for shared assets is done accurately and that the disposal and RAB values are aligned.

A substantial amount of information may be required to apply the cost approach and particularly the usage allocation methodology. For example, it would require information on the extent to which each shared asset was expected to be used by NBN Co, as opposed to its use for the provision of declared services. The cost approach also becomes increasingly arbitrary if the value of assets being disposed of increases above the corresponding RAB value.

### **Revenue approach**

By contrast, the revenue approach would be simple to implement if applied across all assets that are shared and disposed. Its application would involve either:

- subtracting the NBN revenue received in each year from the annual revenue requirement calculated in the FLSM; or
- subtracting the net present value (NPV) of the NBN revenue from the RAB.

These approaches will lead to the same expected level of total revenue (in NPV terms) being earned by Telstra over the period the FLSM is in operation. The NPV approach is more likely to be appropriate when there is a one-off payment to Telstra, eg, for the sale or disposal of an asset. On the other hand, the annual revenue approach is more likely to be appropriate when Telstra receives revenue on an annual basis, eg, for the lease of an asset.

The revenue approach only requires information as to the quantum of revenue to be received from NBN Co, the value of the annual revenue requirement as calculated in the FLSM, and/or the value of the RAB.

The revenue approach is widely accepted by regulators when the risk of less efficient outcomes may offset the high information and compliance burden of the cost approach.

### **Assessment against the long-term interest of end-users**

The cost and revenue approaches give rise to different outcomes, depending on the quantum of the NBN revenue relative to the existing RAB value of the assets either being disposed of, or shared between declared services, and those provided by NBN Co. For example, if the NBN revenue is greater than the RAB value of the assets the NBN is acquiring or sharing, then:

- the revenue approach will result in lower wholesale access prices for the declared services than the cost approach, while Telstra would still recover its efficient costs including a normal rate of return from its CAN assets; while

- the cost approach will result in higher wholesale access prices for the declared services relative to the revenue approach, while Telstra would recover more than its efficient costs including a normal rate of return from its CAN assets.

Accordingly, we recommend that the ACCC consider how these outcomes affect the LTIE when determining how to incorporate the NBN revenue into the FLSM. Our assessment of the cost and revenue approaches by reference to the objective of promoting the LTIE is described below.

### ***Promote competition***

The economics of entry and expansion in fixed-line and broadband markets will become more challenging during the transition to the full roll-out of the NBN, because the payback period for investment by suppliers in those markets will shorten. This will effectively increase the annual cost incurred by access seekers.

A lower wholesale access price would reduce the cost of providing services that rely on the CAN, such as fixed-line and broadband services. This would in turn increase the retail margin available to new entrants, assuming retail prices do not change. This would offset or mitigate the increased cost from a shortening of the payback period.

The pricing approach that results in the lowest wholesale access price is likely to promote competition the most, because it would attract access seekers to enter or expand by increasing the margins available to them.

### ***Telstra's legitimate commercial interest***

We expect Telstra to be able to recover at least its cost of providing the CAN and to earn a normal return from the combination of providing declared services and the revenue it is to receive from NBN Co under both the revenue and cost approaches. It follows that Telstra's legitimate commercial interest is likely to be met under both approaches.

### ***Efficient investment in infrastructure***

The cost approach would ensure that Telstra's incentive to invest in fixed-line services or other infrastructure remains as before, whereas the revenue approach may reduce this incentive – because any additional revenues it may earn through the use of fixed-line infrastructure for other services would effectively be netted off the access price for declared services.

However, given the transition to the NBN, there may be few or no significant further opportunities for Telstra to seek alternative uses of CAN assets or to dispose of them before the transition to the NBN. It follows that the objective of efficient investment in infrastructure may not be a material consideration during the period of the next declaration.

### *Efficient use of infrastructure*

Efficient use of the CAN will be promoted by enabling more intensive use of the current infrastructure, provided that does not impose significant additional capacity costs. The CAN will be used most intensively when the approach that results in the lowest access price is applied.

In our opinion, the objectives of efficient investment and Telstra's legitimate commercial interest do not strongly support either the cost or the revenue approach over the other.

By contrast, the objective of encouraging the efficient use of assets and promoting competition supports the approach that results in the lowest price and greatest use of the CAN over the period of the next declaration. The extent to which a lower price will increase the use of the CAN is a function of:

- the difference in the wholesale access price under the two approaches;
- the extent to which a lower wholesale access price is passed on to end-users by wholesale access seekers;
- the extent to which end-users will use the CAN more intensively following a fall in the price of services that use the declared services; and
- the remaining time over which end-users can benefit from lower prices before they are transitioned to the NBN.

In our opinion, the LTIE is best served by the methodology that delivers the lowest wholesale access price, providing this would lead to a material increase in the extent to which the CAN is used. The revenue approach is more likely to be consistent with the LTIE than the alternative, cost approach, which may have the effect of allowing Telstra to earn a return that is greater than its efficient costs including a normal return on the CAN.

## 1. Introduction

This report has been prepared by NERA Economic Consulting (NERA) at the request of SingTel Optus Pty Ltd (Optus). We have been asked to consider the appropriate treatment of payments from NBN Co to Telstra for the purchase or lease of assets within Telstra's fixed-line network (the NBN revenue), where those assets also form part of the regulatory asset base (RAB) used to determine regulated access prices for declared fixed-line services (declared services).

The Australian Competition and Consumer Commission (ACCC) is currently undertaking a review of fixed-line services that will determine:

- whether to re-declare existing fixed-line services; and
- assuming such services remain declared, final access determinations (FADs) for the existing fixed-line services and the wholesale ADSL service.

Providing such services are re-declared, the FADs will determine the price and other terms at which access seekers are able to obtain fixed-line services from July 2014. The access prices will be determined by means of the fixed-line services model (FLSM). It is in this context that we have been asked:

- how best to incorporate the additional payments by NBN Co in the FLSM;
- to describe relevant examples from other industries and/or countries; and
- to identify additional information required in relation to the nature of the NBN revenue so as to be able to make an informed decision on how it should be incorporated into the FSLM.

Our report is structured as follows:

- section two describes the relevant background;
- section three examines how best to take account of the revenue received by Telstra from NBN Co in relation to the return on and of capital elements of the FLSM, when assets are shared between NBN Co and the declared services; and
- section four examines how best to take account of the revenue received by Telstra from NBN Co for assets that will no longer provide the declared services, ie, are to be sold or leased to NBN Co.



## 2. Background

This section provides the context for the rest of our report. In particular, it describes:

- the agreement between Telstra, NBN Co and the Commonwealth for Telstra's participation in the rollout of the NBN;
- the relevant elements of the long-term interest of end-users (LTIE);
- the parts of the FLSM that will likely be affected by payments to Telstra from NBN Co; and
- the two possible approaches for taking into account the revenue received by Telstra from NBN Co.

Some additional background is provided in Appendix A, which describes:

- the wholesale access arrangements for the customer access network (CAN) and the NBN;
- the relevant legal framework for setting prices for wholesale access to the declared fixed-line services; and
- the method by which wholesale access prices are currently determined and the principles applied by the ACCC in setting prices.

### 2.1. NBN definitive agreements

Telstra signed agreements with NBN Co and the Commonwealth (the NBN agreements) on 23 June 2011 for its participation in the rollout of the national broadband network (NBN).<sup>1</sup> These agreements involve Telstra receiving a total of \$11 billion (in post-tax net present value or NPV terms, in 2010) for a number of components including:<sup>2</sup>

- approximately \$4 billion (post-tax NPV in 2010) over 10 years for progressively disconnecting the copper-based CAN services and broadband services on its hybrid fibre-coaxial cable network that are provided to premises in the NBN fibre footprint, and for the sale of lead-in conduits; and
- approximately \$5 billion (post-tax NPV in 2010) over 30 years for providing NBN Co with large scale access to certain infrastructure – dark fibre, exchange space and ducts.

Telstra also expects to incur some incremental cost from providing these services.<sup>3</sup>

There is limited public information as to the precise purpose of the NBN revenue. We assume that it is provided to compensate Telstra for the loss of opportunity to earn revenue from

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<sup>1</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011.

<sup>2</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011.

<sup>3</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011, p.3.

providing the declared services using the CAN, given the transition from the provision of services using CAN infrastructure to those using the NBN. It follows that the NBN revenue exists because the declared services will eventually no longer be provided and reflects the present value of foregone future earnings from the relevant assets (including a commercial profit).

## 2.2. Long-term interest of end-users

The object of regulating the prices of declared services, as described in the Competition and Consumer Act 2010 (CCA), is:<sup>4</sup>

‘... to promote the long-term interests of end-users of carriage services or of services provided by means of carriage services.’

The CCA explains that regard must be had to a number of objectives in determining whether a particular decision is in the LTIE, ie:<sup>5</sup>

- promote competition in markets for listed services, including removing obstacles to end-users gaining access to listed services;
- achieving any-to-any connectivity;
- the objective of encouraging the economically efficient use of, and the economically efficient investment in:
  - the infrastructure by which listed services are supplied; and
  - any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

We describe these objectives in turn below.

### 2.2.1. Promoting competition

This objective is to promote competition in markets for:<sup>6</sup>

- carriage services, ie, the provision of wholesale access to the CAN; and
- services supplied by means of carriage services, eg, provision of fixed-line and broadband services that use the CAN.

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<sup>4</sup> CCA, Section 152AB(1).

<sup>5</sup> CCA, Section 152AB(2).

<sup>6</sup> CCA, Section 152BCA(1).

The ACCC has previously argued that access prices will determine the profit levels of both access seekers and access providers.<sup>7</sup> This, in turn, affects the entry decisions of potential access seekers, and the level of effective competition in the market.

### **2.2.2. Any-to-any connectivity**

The objective of any-to-any connectivity is achieved when each end-user is able to communicate with other end-users, whether or not they are connected to the same telecommunications network.<sup>8</sup> In our opinion, this objective will not be affected by the treatment of the NBN revenue in the FLSM. Therefore, we do not consider this objective any further in this report.

### **2.2.3. Economically efficient use and investment in infrastructure**

The CCA specifies that the ACCC must have regard to a range of matters in determining which terms and conditions are likely to encourage the economically efficient use of, and investment in, infrastructure, ie:<sup>9</sup>

- whether it is, or likely to become, technically feasible for the services to be supplied and charged for;
- the legitimate commercial interests of the supplier of the services, including the ability of a supplier to exploit economies of scale and scope;
- incentives for investment in the infrastructure by which services are, or are likely to become, capable of being supplied; and
- the risks involved in making the investment.

The ACCC is of the view that the phrase ‘economically efficient use of, and the economically efficient investment in, infrastructure’ refers to the concept of economic efficiency including productive, allocative and dynamic efficiency.<sup>10</sup>

In our opinion, this objective can be split into three for the purpose of assessing how to treat the NBN revenue in the FLSM. These three objectives are to encourage:

- the economically efficient use of infrastructure;
- the economically efficient investment in infrastructure; and

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<sup>7</sup> ACCC, *Review of the 1997 Telecommunications Access Pricing Principles for Fixed Line Services: Draft Report*, September 2012, p.121.

<sup>8</sup> CCA, Section 152AB(8).

<sup>9</sup> CCA, Section 152AB(6).

<sup>10</sup> ACCC, *Resolution of Telecommunications Access Disputes – A Guide*, March 2004, p.56. The ACCC emphasises the three components of economic efficiency when discussing this objective in the 2011 FAD.

- the legitimate commercial interests of the supplier of the services.

#### **2.2.4. Conclusion**

The following objectives promote the LTIE and, in our opinion, are most relevant to the treatment of the NBN revenue in the FLSM:

- promoting competition;
- the efficient use of infrastructure, and in particular the CAN;
- the efficient investment in infrastructure, and in particular the CAN; and
- Telstra's legitimate commercial interests.

In the remainder of this report, we apply these objectives in order to examine how to treat the NBN revenue in the FLSM in a manner that best promotes the LTIE.

### **2.3. Parts of the FLSM affected by the NBN revenue**

The principal elements of the FLSM that will be affected by the NBN revenue are:

- the return of and on capital, since the assets employed to provide the declared services will:
  - be reduced when certain assets are no longer used to provide the declared services; and
  - for a period, will provide both the declared services and access to NBN Co simultaneously;
- the operating expenditure (opex) required to maintain assets that are no longer providing the declared services will not need to be included in the regulated revenue; and
- the tax liability will change as the capital employed, and so profit attributable to the service, also varies.

The most significant changes will be in the return on and of capital, and so this element of the FLSM is the focus of our report. We consider the effects on opex and tax liabilities in Appendix B.

The effect on the return on and of capital depends on the assets (and related services) in respect of which the NBN revenue is to be paid. Figure 1 explains that these assets can be categorised into:<sup>11</sup>

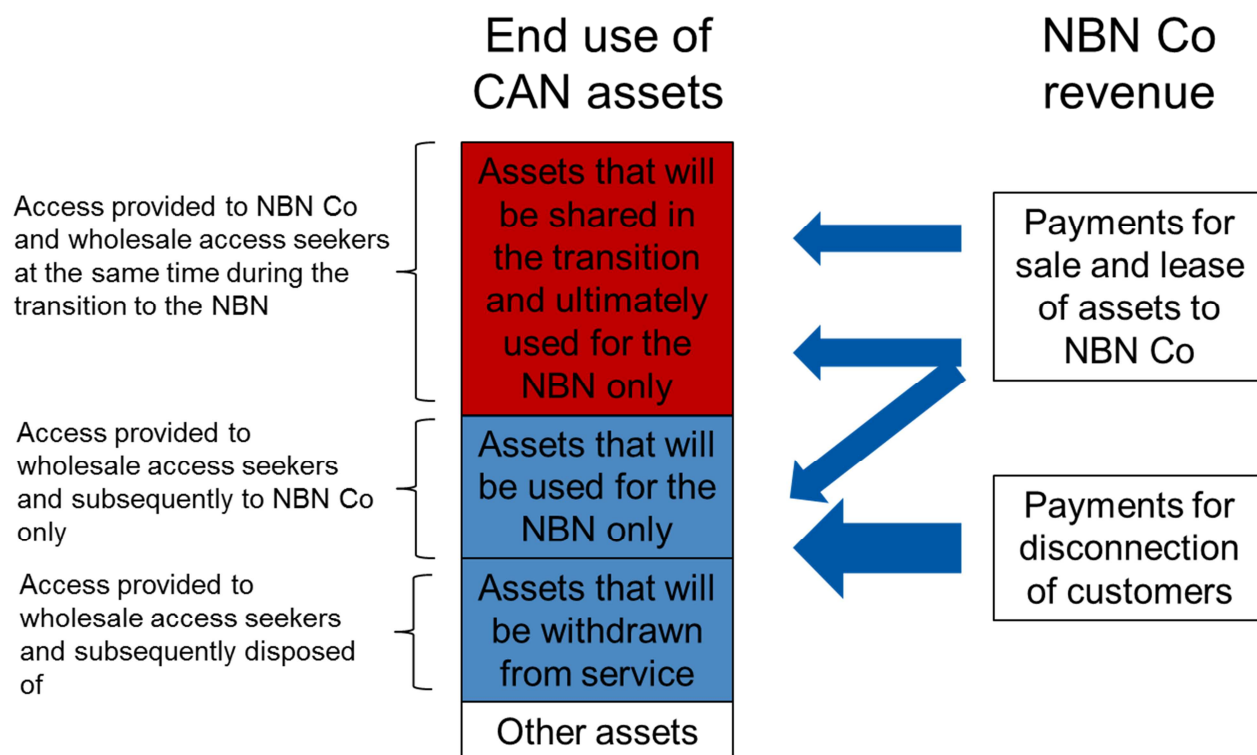
- those that NBN Co will have access to and that will provide the declared services at the same time, which we highlight in red; and

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<sup>11</sup> Note that an asset could be shared and subsequently disposed of.

- those assets – highlighted in blue – that will no longer provide the declared services and will either:
  - be used to provide services for the NBN; or
  - no longer be used at all.

**Figure 1**  
CAN assets affected by NBN revenue



We discuss the appropriate treatment of these two types of assets in the remainder of this report.

## 2.4. Cost and revenue based approaches

There are two principal methodological choices for taking account of the NBN revenue in the FLSM. These are either:<sup>12</sup>

<sup>12</sup> The NBN revenue could be taken into account in a different manner if the building block approach was no longer to be applied. For example, the price of the declared service could be set at the additional cost of providing the declared services over and above providing the NBN services if the form of regulation was to set prices that are equal to long run marginal costs.

- to reduce the annual revenue requirement for the declared services by the amount of revenue received by Telstra from NBN Co for providing access to assets that also provide declared services or, alternatively, to reduce the RAB by the NPV of the NBN revenue<sup>13</sup> (the revenue approach); or
- to reduce the value of the assets whose cost is used to derive the revenue requirement for the declared services, in recognition of the fact that a portion of those assets is used to provide services to NBN Co, which in turn bears some of the cost of those assets (the cost approach).

As a matter of principle, it would be possible to combine these two approaches by reducing the declared service revenue requirement by a proportion of the NBN revenue received by Telstra. However, for practical purposes in this report we focus on which of the two approaches is most appropriate rather than whether or, if so, how they might be combined.

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<sup>13</sup> Both these approaches will lead to the same expected level of total revenue (in NPV terms) being earned by Telstra over the period the FLSM is in operation.

### 3. Shared Assets

This section examines how best to take account of the NBN Co revenue in the return of and on capital when assets are shared between NBN Co and the declared services. In particular we:

- set out how the cost and revenue approaches would be applied;
- describe how the outcomes under the cost and revenue approaches will differ; and
- assess the approaches against the objective of promoting the LTIE.

#### 3.1. Cost approach

Application of the cost approach to shared assets involves reducing the value of the asset that is being shared within the RAB. This would be achieved by allocating only part of the existing RAB value to the computation of the regulated price for declared services.

##### 3.1.1. Cost allocation methodologies

In order for the cost approach to be put into practice, a method is required to allocate the RAB value of shared assets between the regulated or declared service and the separate service to be provided to NBN Co. There are two principal methods by which such costs can be allocated, ie:<sup>14</sup>

- the revenue allocation approach; and
- the usage allocation approach.

##### *Revenue allocation approach*

Under the revenue allocation approach, the cost of shared assets is allocated according to the proportion of revenue that is derived from the use of those assets from:

- the regulated service; and
- the unregulated services.

For example, if revenue earned from providing the declared service is \$20, while \$80 is earned from providing unregulated services, the RAB value of the asset would be split so that:

- 20 per cent of the value of the asset is allocated to declared services; and
- 80 per cent of the value of the asset is allocation to unregulated services.

A reliable application of the revenue approach to shared assets would require information as to:

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<sup>14</sup> We do not consider the long run incremental approach here because it leads to all of the shared costs being allocated to one service based on a decision regarding which service is incremental.

- the quantum of payments from NBN Co that specifically relate to shared assets;
- the quantum of regulated revenue that specifically relates to shared assets; and
- the RAB value of the shared assets.

### ***Usage allocation approach***

Under the usage allocation approach, the costs of a shared asset are allocated based on the extent to which each service uses the shared asset. Usage is generally calculated according to technical or physical usage, eg, how often each service uses an asset.

A reliable application of the usage allocation approach would require information as to:

- a description of the asset to which the cost relates;
- the measure of usage applied;
- the reasons why that is the most reliable measure of usage;
- the extent to which NBN Co and the declared services are expected to use the asset; and
- the RAB value of the shared assets.

This information may not be easy to obtain and there may be various measures of usage that result in substantially differing cost allocations. Such variations may cast doubt on the robustness of this approach.

### **3.1.2. Selection of an allocation methodology**

A review of the cost allocation methodologies applied by a number of Australian and overseas regulatory bodies shows that there is a preference for the usage allocation approach. We present a summary of a number of case studies in Appendix C.

Consistent with this finding, in the 2011 FAD the ACCC applied cost allocation factors that were based on the relative usage of assets in the FLSM to provide each of the declared services.<sup>15</sup> Further, the ACCC allocated costs that could not be directly allocated to assets according to a proxy that broadly reflected the usage of the relevant assets.<sup>16</sup> However, where cost allocation factors could not be derived, the ACCC utilised revenue-based allocation factors.

In our opinion, if a cost based method is to be adopted, the usage allocation approach is most likely to support the LTIE because it gives rise to prices that reflect costs and so support the efficient use of the infrastructure.

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<sup>15</sup> ACCC, *Inquiry to make final access determinations for the declared fixed-line services*, Final report, July 2011, p.95.

<sup>16</sup> *Ibid.*



However, the revenue allocation approach may alternatively be appropriate when the ACCC does not have sufficient information to apply the usage allocation approach with a reasonable degree of robustness. Ultimately, the decision will depend on whether the additional information and compliance costs associated with proper implementation of the usage allocation approach are less than the additional efficient benefits arising from its use. Where information costs are high, the revenue allocation approach may be preferable.

### 3.2. Revenue approach

The revenue approach would be simple to apply if it is used across all assets that are either shared or transferred to NBN Co. It could be applied in two ways, ie:

- the revenue received from NBN Co could be netted off the annual revenue requirement for Telstra; and/or
- the NPV of the revenue that is expected to be received for sharing assets could be taken from the RAB.<sup>17</sup>

These two approaches will result in the same level of expected revenue for Telstra in NPV terms. However, the NPV approach will lead to a smoother effect on prices.

The NPV approach would be less appropriate where there is uncertainty regarding the quantum of payments in each year. Further, the annual revenue requirement approach is more sympathetic to the nature of the ongoing payments when assets are shared. We note that the NBN revenue should be derived net of the additional costs Telstra will incur as part of the transition to the NBN.

Application of the revenue approach to all assets requires information as to:

- the quantum of the NBN revenue and the date at which it will be received; and
- the value of the annual revenue requirement calculated in the FLSM.

We assume that the ACCC could obtain this information and apply this approach with relative ease.

The outcome of the revenue approach would be that the total annual revenue required to recover the annual cost of the PSTN would come from regulated services, Telstra services and NBN Co revenue. This would ensure that Telstra does not receive a windfall gain from NBN Co revenue.

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<sup>17</sup> The discount rate used to calculate the NPV could have a significant impact on the NPV figure. Therefore, the ACCC should ensure that the appropriate discount rate is used if the NPV approach is used.

### 3.3. Case studies

Regulators have often considered whether the revenue or cost approach is the most appropriate to apply to shared assets. We reviewed the approaches adopted by various regulatory bodies and present a number of case studies in Appendix D.

Our review did not indicate a consistent preference for either approach. The revenue approach tended to be preferred when:

- the efficiency benefits of the cost approach are limited;
- implementation of the cost approach is complicated; and/or
- the revenue from the unregulated service relies upon the continued provision of the regulated service.

### 3.4. Outcomes under each approach

The table below summarises Telstra's return from the CAN assets (ie, from NBN revenue and the provision of wholesale access to the CAN), and the differences in wholesale access prices that would be likely to result from the cost and revenue approaches.

**Table 1**  
**Summary of outcomes under the cost and revenue approaches**

Level of NBN revenue	Cost approach	Revenue approach
NPV of NBN revenue for shared assets is <b>greater</b> than the RAB value of shared assets allocated to the NBN-related services using the cost approach	<ul style="list-style-type: none"> <li>▪ Telstra earns more than its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are higher than under revenue approach</li> </ul>	<ul style="list-style-type: none"> <li>▪ Telstra would expect to recover its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are lower than under cost approach</li> </ul>
NPV of NBN revenue for shared assets is <b>less</b> than the RAB value of shared assets allocated to the NBN-related services using the cost approach	<ul style="list-style-type: none"> <li>▪ Telstra earns less than its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are lower than under revenue approach</li> </ul>	<ul style="list-style-type: none"> <li>▪ Telstra would expect to recover its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are higher than under cost approach</li> </ul>

The revenue that Telstra is to receive from NBN Co would appear to be sufficient to compensate it for a large part of its RAB for declared services since:

- the initial RAB value of all assets was \$15.5bn as at 1 July 2011;<sup>18</sup> and
- the revenue to be received from NBN Co for access to some assets is \$11 billion (post-tax NPV in 2010).<sup>19</sup>

We understand from Optus that the NBN revenue is to be provided for access to only part of the CAN and that it is likely that the NPV of the NBN revenue (assuming it was applied across all assets) is greater than the RAB value of those assets. It follows that the cost approach is likely to result in Telstra earning more than its efficient costs and so a normal rate of return on its CAN assets.

### **3.5. Which approach best supports the LTIE?**

In this section we assess which of the above two approaches best supports the objectives that promote the LTIE, as discussed in section 2.2.

#### **3.5.1. Promote competition**

The ACCC has recently concluded that there are limitations on the effectiveness of competition in the retail markets for fixed line and broadband services.<sup>20</sup> Further, the degree of competition appears to vary across regions, since the ACCC's view is that retail fixed line and broadband services are becoming increasingly competitive, particularly in metropolitan areas where access seekers have installed their own exchange equipment.<sup>21</sup> It follows that there is likely to be scope for competition to be enhanced in the retail supply of fixed line and broadband services in some, mostly non-metropolitan areas.

The economics of entry and expansion in the fixed-line and broadband markets will become more challenging during the transition to the full roll-out of the NBN because the payback period for investment by suppliers in those markets will shorten. This will effectively increase the annual cost incurred by access seekers. It follows that new entry will become less attractive and, all else equal, competition will be reduced.

The choice between the revenue and cost approaches may affect competition in retail fixed line and broadband markets through the resulting effect on the wholesale access price. A lower wholesale access price will reduce the cost of providing services that rely on the CAN, such as fixed-line and broadband services. Lower access prices would increase the retail margin available to new entrants assuming the retail price does not change. This would offset or mitigate the increased cost from a shortening of the payback period.

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<sup>18</sup> ACCC, *Inquiry to Make Final Access Determinations for the Declared Fixed-line Services: Final Report*, July 2011, p.37

<sup>19</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011.

<sup>20</sup> ACCC, *Public inquiry into the fixed line services declarations*, Draft report, December 2013, p.33, 37 and 38.

<sup>21</sup> ACCC, *Public inquiry into the fixed line services declarations*, Draft report, December 2013, p.37.

A higher retail margin may encourage firms looking to enter or expand the provision of fixed line and broadband services for the first time. This would promote competition in fixed-line and broadband services.

It follows that the pricing approach that results in the lowest wholesale access price is likely best to promote competition.

### 3.5.2. Telstra's legitimate commercial interest

In our opinion, Telstra's legitimate commercial interests are met when it expects to recover its efficient investment in the CAN and earn a normal commercial return.<sup>22</sup> Telstra can expect to recover these costs by:

- providing wholesale access to the CAN; and
- from the NBN revenue.

We assume that Telstra can expect to recover its efficient costs and earn a normal commercial return under the current access terms and conditions, and so have focused our analysis on what would change under the cost and revenue approaches.

The revenue approach does not affect the total revenue that Telstra would earn from the CAN assets. The sum of regulated and non-regulated revenue would be sufficient to recover the annual revenue requirement under the FLSM. It follows that the revenue approach is consistent with Telstra's legitimate commercial interests.

Under the cost approach, Telstra's return on shared assets would depend on the level of the NBN revenue, ie:

- Telstra would not recover its efficient costs if the NPV of the NBN revenue for shared assets is **less** than the RAB value of shared assets that would be allocated to the NBN-related services; and
- Telstra would recover more than its efficient costs if the NPV of the NBN revenue for shared assets is **greater** than the RAB value of shared assets that would be allocated to the NBN-related services using the cost approach.

It follows that Telstra would meet its legitimate commercial interests under the cost approach if the NPV of the NBN revenue for shared assets is greater than (or equal to) the RAB value of shared assets that would be allocated to the NBN-related services using the cost approach. We explained in section 3.4 that this is likely to hold for shared and disposed assets combined, and

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<sup>22</sup> The Australian Competition Tribunal has stated that the legitimate business interest is a reference to the interest of a carrier in recovering the costs of its infrastructure and its operating costs and obtaining a normal return on its capital when looked at through the prism of a charge term and condition of access and its relationship to a carrier's cost structure, it. See AComPT 4 (2 June 2006), para. 89.

hence we would expect Telstra to at least meet its legitimate commercial interests under both approaches.

### **3.5.3. Efficient investment in infrastructure**

It seems unlikely that any significant future investment in the CAN would be efficient given that it is only going to provide the declared services for a limited period during the transition to such services being provided by means of the NBN. It follows that the need to maintain efficient investment in the CAN network is not of significant importance during the transition to the NBN.

We interpret the LTIE objective of encouraging efficient investment in infrastructure as incorporating any investment required to enable the sharing assets. Efficiency in such investment is likely to be encouraged if:

- the declared service can still be provided to the same standard whilst the asset is being shared; and
- the cost incurred to share the asset is no more than the incremental revenue received for sharing it.

Under the revenue approach, Telstra would not earn any additional profit from sharing assets. It follows that Telstra would not have an incentive to share assets even though it was efficient to do so, if it expected this approach would be adopted in the future.

On the other hand, applying the cost approach would allow Telstra to benefit from sharing assets and so it would provide it with an incentive to share assets when it was efficient. It follows that the cost approach assists the objective of efficient investment in assets.

However, the declared service will soon no longer be provided, at which point all remaining assets will presumably be disposed of. On this basis, there is unlikely to be significant benefit from providing Telstra with an incentive to share assets when the most significant sharing decision has already been taken, and the declared service will only be in operation for a further limited period.

### **3.5.4. Efficient use of infrastructure**

The CAN is a sunk asset whose functionality will be replaced by the deployment of the NBN. Hence, it is reasonable to assume that material further investment in the CAN will not be efficient. In that case, efficient use of infrastructure implies the efficient use of the current CAN infrastructure. This will be promoted by enabling more intensive use of the current infrastructure, provided that does not impose significant additional capacity costs.<sup>23</sup>

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<sup>23</sup> We understand that there will be no capacity related costs for the access provider in relation to ULL that is rented to an access seeker because the access seeker is controlling this asset.

We note that the majority of the CAN relates to the last mile network components, such as the copper line. Promoting the take-up of broadband services and the ULLS/LSS access services will promote more efficient use of the infrastructure, provided that it does not lead to capacity related costs. This would likely result in more efficient use of the assets, because the benefit to end-users from increased usage would be greater than the cost of providing it.

The CAN will be used most under the approach with the lowest wholesale access price. The extent to which the usage of the CAN will increase as a result of the lower price will depend upon:

- the difference in the wholesale price under the two approaches. This is likely to vary over time and depend upon:
  - the difference between the NPV of the NBN revenue for shared assets and the RAB value of shared assets that would be allocated to the NBN-related services using the cost approach at each point in time; and
  - the value of the remaining RAB at each point in time;
- the extent to which a lower wholesale access price would be passed on to end-users by wholesale access seekers;
- the extent to which end-users will increase their usage of the CAN following a fall in the retail price of services that use the declared services; and
- the remaining time over which end-users can benefit from lower prices before they are transitioned to the NBN.

### 3.5.5. Conclusion

Our analysis suggests that robust application of the cost approach depends on the availability of information on the relative usage of assets between declared and NBN-related services. To the extent that such information is not available, the more difficult it is to allocate cost and the more arbitrary is the cost approach. It follows that this approach should only be used if costs can be allocated reasonably accurately and without incurring non-trivial information and compliance costs.

Aside from the question of practicability, in our opinion the objectives of efficient investment and Telstra's legitimate commercial interest do not strongly support one approach over the other. However, the objective of promoting competition and efficiently using assets would favour the approach that results in the lowest wholesale access price, because it would lead to the greatest use of the CAN. It follows that this objective would support:

- the revenue approach when the NPV of the NBN revenue for shared assets is greater than the RAB value of shared assets that would be allocated to the NBN-related services using the cost approach; and

- the cost approach when the NPV of the NBN revenue for shared assets is less than the RAB value of shared assets that would be allocated to the NBN-related services using the cost approach.

This support strengthens as the difference between the levels of the CAN's usage under the two approaches increases.

## 4. Assets for Disposal

This section examines how best to take account of the NBN revenue in the return of and on capital for assets that will no longer provide the declared services and will either:

- be disposed of; or
- be used by NBN Co.

In particular, we:

- set out how the cost and revenue approaches would be applied;
- describe how the outcomes under the cost and revenue approaches will differ; and
- assess the approaches against the objective of promoting the LTIE.

### 4.1. Cost approach

The cost approach involves reducing the RAB by the value of the asset that is to be disposed of. Two pieces of information are needed to do this, ie:

- the date at which the asset will no longer provide the declared services; and
- the RAB value of the asset on that date.

The date at which an asset will no longer provide the declared services depends on the timing of the NBN roll-out. This date is likely to become clear once the asset is no longer providing the declared service.

The ACCC fixed the initial RAB value of the assets that provide the declared service in the previous FAD. The RAB value of existing assets will only change from its initial value on account of either depreciation or disposals, ie, existing assets are not to be revalued. The value of assets in the initial RAB was determined by calculating the depreciated actual cost (DAC) value of Telstra's investments in network assets.<sup>24</sup> The ACCC made two adjustments to the starting point DAC value, ie:

- it indexed the value of land assets by CPI; and
- it increased the value of the 'ducts and pipes' asset class above its value in Telstra's regulatory accounting framework accounts - the ACCC took the view that this was required to provide sufficient pricing stability to support past investments and promote industry confidence in making future investment decisions.<sup>25</sup>

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<sup>24</sup> ACCC, *Inquiry to make final access determinations for the declared fixed-line services*, Final Report, July 2011, p.43.

<sup>25</sup> *Ibid.*



It is unclear how much detail the ACCC has available to it in relation to the value of each individual asset in the RAB. The extent to which the ACCC holds or can obtain this information will determine whether it can reliably remove assets and their associated costs from the RAB. This point can be illustrated by reference to two examples of adjusting the RAB on account of the circumstance where, say, a duct in a particular town is no longer providing the declared services, ie:

- first, we assume that the ACCC has information only on the total value of each asset class such as ducts and pipes. In that circumstance, the ACCC should be able to calculate the remaining RAB value for this asset class by subtracting depreciation. However, it is not clear how much of this value should be associated with a duct in a particular town; and
- second, we assume that the ACCC can easily obtain information on the initial value of each individual asset that will be removed from the RAB. In that circumstance, the ACCC would be able to calculate the remaining value in the RAB at the point in time when the asset no longer provides the declared services by subtracting the relevant depreciation from the initial value of the duct in the particular town. In this case, the ACCC can accurately remove the relevant asset value from the RAB.

The first of these examples highlights that the cost approach becomes increasingly arbitrary as the uncertainty regarding the value of individual assets in the RAB increases. In addition, it is not clear how the ACCC would take into account the increase in the value of ducts and pipes discussed above when assessing how to treat the disposal value. For example, would the ACCC increase the disposal value by the same proportion as it uplifted the initial RAB valuation? This consideration further increases the arbitrary nature of the cost approach.

## 4.2. Revenue approach

Providing it is applied across all assets that are to be shared and disposed of, the revenue approach would be applied in the same manner as described in section 3.2. On the assumption that Telstra will receive a lump sum for assets that are disposed of,<sup>26</sup> this can only be accounted for by netting off the relevant amount of revenue from the RAB, when the asset is disposed of.

Such an approach is relatively simple to apply and ensures that Telstra does not receive a windfall gain from selling assets at a level above the RAB valuation.

## 4.3. Outcomes under each approach

The table below summarises Telstra's return from the CAN assets (return from NBN revenue and provision of wholesale access) and the difference in wholesale access prices that would result from the cost and revenue approaches.

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<sup>26</sup> For example, we expect Telstra will receive a one-off payment for each lead-in conduit sold to NBN Co.

**Table 2**  
**Summary of outcomes under the cost and revenue approaches**

<b>Level of NBN revenue</b>	<b>Cost approach</b>	<b>Revenue approach</b>
NPV of NBN revenue for assets being disposed of is <b>greater</b> than RAB value of assets being disposed of	<ul style="list-style-type: none"> <li>▪ Telstra earns more than its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are higher than under revenue approach</li> </ul>	<ul style="list-style-type: none"> <li>▪ Telstra expects to earn its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are lower than under cost approach</li> </ul>
NPV of NBN revenue for assets being disposed of is <b>less</b> than RAB value of assets being disposed of	<ul style="list-style-type: none"> <li>▪ Telstra earns less than its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are lower than revenue approach</li> </ul>	<ul style="list-style-type: none"> <li>▪ Telstra expects to earn its efficient costs and a normal rate of return on its CAN assets</li> <li>▪ Wholesale access prices are higher than under cost approach</li> </ul>

We explained in section 3.4 that it is likely the NPV of the NBN revenue (assuming it was applied across all assets) is greater than their RAB value. It follows that the cost approach is likely to result in Telstra earning more than its efficient costs and a normal rate of return on its CAN assets.

#### **4.4. Which approach best supports the LTIE?**

We examine below which approach best supports each of the relevant elements of the LTIE.

##### **4.4.1. Promote competition**

The approach that would result in the lowest wholesale access price would best promote competition although, for the same reasons we described in section 3.5.1, the effect is likely to be promoted by the revenue approach where the disposal price is greater than the value in the RAB.

##### **4.4.2. Telstra's legitimate commercial interest**

The revenue approach does not affect the total revenue that Telstra would earn from the CAN assets. We therefore conclude that it is consistent with Telstra's legitimate commercial interests.

Under the cost approach, Telstra would recover its efficient costs and earn a normal return on the assets used to provide the declared services. However, its return on the assets that are disposed of under the cost approach will depend on the level of the NBN revenue, ie:

- it will not recover its efficient costs relevant to the CAN if the NPV of the NBN revenue for assets being disposed of is less than the RAB value of the assets being disposed of; and
- it will receive more than its efficient costs relevant to the CAN if the NPV of the NBN revenue for assets being disposed of is more than the RAB value of the assets being disposed of.

Telstra will meet its legitimate commercial interests under the cost approach if the NPV of the NBN revenue for assets being disposed of is greater than (or equal to) the RAB value of those assets. We explained in section 3.4 that this is likely to be the case, and so we would expect Telstra at least to meet its legitimate commercial interests under either approach.

#### **4.4.3. Efficient investment in infrastructure**

The need to maintain efficient investment in the CAN is unlikely to be of significant importance during the transition to the NBN, as described in section 3.5.3.

In our opinion, efficient investment in infrastructure incorporates the efficient disposal of assets. Disposal is efficient when:

- the declared service can still be provided to the same standard when the asset is disposed of; and
- the revenue from disposing of the asset is greater than the expected revenue earned by providing the declared service with the asset in question.

Under the revenue approach, Telstra would not earn any additional profit from disposing of assets whose market value was greater than the expected return from using those assets to continue to provide the declared services. Telstra would not therefore have an incentive to dispose of assets in these conditions if it expected this approach to be used in the future.

On the other hand, applying the cost approach in these circumstances would allow Telstra to benefit from a disposal and so it would have an incentive to dispose of assets. The cost approach therefore assists the objective of efficient investment in assets.

The declared service will only be provided for a limited period and, once the declared service is no longer provided, all assets not used in the provision of NBN services will presumably either be disposed of or retired. It follows that there are unlikely to be significant opportunities for Telstra to dispose of assets before the service is no longer provided. As such, any loss of efficiency from the revenue approach is likely to be very small.

#### **4.4.4. Efficient use of infrastructure**

We discussed in section 3.5.4 that promoting the take-up of broadband services and the ULLS/LSS access services will promote more efficient use of the infrastructure, provided that it does not lead to capacity related costs.

The CAN will be used most under the approach with the lowest wholesale access price. The extent to which the usage of the CAN will increase as a result of the lower price will depend upon:

- the difference in the wholesale price under the two approaches - this is likely to vary over time and will depend upon:
  - the difference between the NPV of the NBN revenue and the RAB value of the assets being disposed of at each point in time; and
  - the value of the remaining RAB at each point in time;
- the extent to which a lower wholesale access price is passed on to end-users by wholesale access seekers;
- the extent to which end-users will use the CAN more intensively following a fall in the price of services that use the declared services; and
- the remaining time over which end-users can benefit from lower prices before they are transitioned to the NBN.

In our opinion, the ACCC should consider all of the above factors and their effect on the efficient use of the CAN assets during the transition.

#### **4.4.5. Conclusion**

The cost approach is likely to result in an increasingly arbitrary change to wholesale access prices as the RAB value of assets to be disposed of becomes more uncertain. This approach is therefore likely to be most suitable if the RAB value of the assets being disposed of can be measured with a reasonable degree of robustness. However, we note the increased uncertainty associated with the ‘uplift’ to the RAB value of the ducts and pipes and the means by which this should be reflected in the treatment of the disposal of those assets.

The objectives of efficient investment and Telstra’s legitimate commercial interest do not strongly support one approach over the other. However, the objective of promoting competition and efficiently using infrastructure supports the approach that results in the lowest access prices and the greatest use of the infrastructure. This objective would support:

- the revenue approach when the NBN revenue for assets being disposed of is greater than the RAB value of those same assets; and
- the cost approach when the NBN revenue for assets being disposed of is less than the RAB value of those same assets.

This support strengthens as the difference between the intensity with which the CAN is used under the two approaches increases.

## Appendix A. Background

This appendix provides some additional context for our report. In particular it describes:

- the wholesale access arrangements for the CAN and the NBN;
- the relevant legal framework for setting prices for wholesale access to the declared fixed-line services; and
- the method by which wholesale access prices are currently determined and the principles applied by the ACCC in setting prices.

### A.1. Wholesale access to the CAN and NBN

Telstra owns and operates two distinct fixed-line communications networks, being:

- the CAN, which is a local access network that connects customers' premises to the network switch at their local exchange; and
- the Core network, which includes switching and inter-capital transmission equipment used to connect each customer's call to its destination.<sup>27</sup>

Telstra supplies a number of declared fixed-line services (declared services) using the CAN and/or Core assets, including the unconditioned local loop service (ULLS) and wholesale line rental (WLR).<sup>28</sup> These networks are used by third party telecommunications service providers in combination with the other declared services to provide retail communications services, such as fixed-line and broadband services.

NBN Co is a company set up and owned by the Commonwealth that is responsible for building and operating the NBN. The NBN will replace the CAN since it will provide a connection between a customer's premises and the telephone exchange, primarily using fibre.<sup>29</sup> Customers using the CAN will be switched over to the NBN once it has been built in a particular area, so that the CAN will generally no longer be required in that area. From that point, NBN Co will provide wholesale access to the NBN to Telstra and other retail telecommunications service providers.

Telstra will disconnect standard, copper-based CAN services as NBN Co rolls out the NBN to each region, each of which consists of approximately 3,000 premises.<sup>30</sup> In broad terms, the

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<sup>27</sup> ACCC, *Review of the 1997 Telecommunications Access Pricing Principles for Fixed-line Services: Draft Report*, September 2010, p.88.

<sup>28</sup> The relevant declared fixed-line services are described at: ACCC, *Inquiry to make final access determinations for the declared fixed-line services*, Final Report, July 2011, pp.260-261.

<sup>29</sup> This policy is under review by the Commonwealth Government.

<sup>30</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011, p.8.

disconnection must be completed within 18 months of NBN Co declaring the rollout region to be ready for service, being the point at which at least 90 per cent of the premises in that region are passed by NBN Co fibre.<sup>31</sup>

It will take a considerable amount of time for NBN Co to build fibre such that a region is ready for service and for the disconnection of the CAN to take place. It follows that there will be a significant period within which the declared services continue to be provided using the CAN whilst some of the same assets are being made available to NBN Co to build and operate the NBN. Once disconnection takes place, the assets in the CAN will provide the NBN services and not the declared services.

## A.2. Legal Framework

The object of regulating the prices of declared services, as described in the CCA, is:<sup>32</sup>

‘... to promote the long-term interests of end-users of carriage services or of services provided by means of carriage services.’

The CCA explains that regard must be had to a number of objectives in determining whether something is in the LTIE, ie:<sup>33</sup>

- promoting competition in markets for listed services including removing obstacles to end-users gaining access to listed services;
- achieving any-to-any connectivity;
- encouraging the economically efficient use of the infrastructure by which listed services are supplied or may be supplied in the future;
- encouraging the economically efficient investment in the infrastructure by which listed services are supplied or may be supplied in the future; and
- the legitimate commercial interests of the supplier or suppliers of the services.

The ACCC must have regard to criteria specified in the CCA when making a FAD, ie:<sup>34</sup>

- whether the determination will promote the LTIE;
- the legitimate business interests of a carrier or carriage service provider and the carrier's or provider's investment in facilities used to supply the declared service;<sup>35</sup>

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<sup>31</sup> Telstra, *Telstra signs NBN Definitive Agreements*, ASX Release, June 2011, p.8.

<sup>32</sup> CCA, Section 152AB.

<sup>33</sup> CCA, Section 152AB2.

<sup>34</sup> CCA, Section 152BCA.

- 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 person 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.

The ACCC may also take into account any other matters that it thinks are relevant.

### **A.3. ACCC's approach to regulating access prices**

The ACCC uses a building block methodology to regulate access prices and applies it by using a spreadsheet model (the FLSM) to calculate access prices for the declared services. The ACCC sets a revenue requirement for the provision of declared services by adding together the following building blocks:

- return on capital –compensation in the form of a return on the capital employed to provide the declared services;
- return of capital –the depreciation of return or the capital employed to provide the declared services;
- operating expenditure (opex) –the forecast recurring or annual operating expenditure required to provide the declared services; and
- tax liabilities –the access provider's tax expenses, which is incorporated to ensure that the service provider derives the correct post-tax rate of return.

The return of and on capital are calculated by using an initial RAB value that was fixed by the ACCC in its 2011 FAD. The RAB is rolled forward each year by adding new capital expenditure and subtracting depreciation and asset disposals from the RAB in the previous year.

The ACCC has expressed a view that a desirable feature of an access pricing approach is that it aims to ensure that the access provider is adequately compensated (and not over- or under-compensated) in the long-run.<sup>35</sup> The building block model, as applied by the ACCC, achieves

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<sup>35</sup> Legitimate business interests have been interpreted as allowing for a normal rate of return: 'Regard to the legitimate business interests of access providers requires an access price that at least provides a normal commercial return on prudent investment... However, it is unlikely the legitimate business interests extend to achieving a higher than normal commercial return through the use of market power.' ACCC, *Access Pricing Principles – Telecommunications*, July 1997, p.9.

<sup>36</sup> ACCC, *Review of 1997 Guide to Telecommunications Access Pricing Principles for Fixed-line Services*, Discussion Paper, p.23.

this by setting prices such that service providers recover their efficiently incurred costs and derive an appropriate rate of return in the long run.

The ACCC has explained that adopting a building block approach will promote the LTIE because:<sup>37</sup>

- locking in the RAB fosters predictable revenue and price paths, minimising the likelihood of windfall gains and losses;
- it provides regulatory certainty for the access seeker and provider, thereby promoting efficient investment and competition;
- it enables economically efficient investment decisions to be made regarding future infrastructure requirements;
- it ensures access providers are adequately compensated for the cost of providing declared services over time, ie, a service provider's efficiently incurred costs are recouped, including a return on its investments; and
- determining prices through a transparent and cost-based pricing model will assist access seekers in negotiating equivalent access to the declared services, thereby promoting competition in downstream markets.

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<sup>37</sup> ACCC, *Inquiry to make final access determinations for the declared fixed-line services*, Final Report, July 2011, p.180.



## Appendix B. Opex and Tax

This appendix examines how opex and tax liabilities should be adjusted in the FLSM to take account of the NBN revenue.

### B.1. Operating expenditure

There are two broad categories of opex, ie:

- that directly attributable to a declared service, eg, the cost of employing someone to maintain an asset that is used to provide the declared service; and
- that indirectly attributable to a declared service, eg, corporate overheads.

Opex should only be included in the FLSM to the extent that it is required to provide the declared service. This will ensure that access prices are cost based and allow the access provider to recover the costs of providing the declared service. Therefore:

- opex that is directly attributable to assets that are no longer in the RAB should not be included in the FLSM; and
- opex that is directly attributable to assets that are shared between the declared and NBN services should be split between those services using the same methodology used for the return on and of capital.

In the 2011 FAD, the ACCC allocated indirect opex between declared and other services according to the total direct opex incurred by those services.<sup>38</sup> In our opinion, indirect opex should be calculated for the next FAD using the same methodology.

### B.2. Tax liabilities

The ACCC has adopted a post-tax building block model framework where corporate tax liabilities form a separate building block component of the revenue requirement.<sup>39</sup>

The ACCC adopted an initial tax value for the assets included in the RAB based on the written-down tax value of these assets in Telstra's tax accounts in the previous FAD. The initial tax value is converted into a revenue requirement by using straight line depreciation.<sup>40</sup>

We assume that the tax liability of each asset relative to its value in the RAB is the same and, as a result, tax liabilities should be reduced by the same proportion as the RAB. Therefore, Telstra will only recoup tax that is related to revenue from declared services.

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<sup>38</sup> ACCC, *Inquiry to Make Final Access Determinations for the Declared Fixed-line Services: Final Report*, July 2011, p.80.

<sup>39</sup> ACCC, *Inquiry to Make Final Access Determinations for the Declared Fixed-line Services: Final Report*, July 2011, p.89.

<sup>40</sup> ACCC, *Inquiry to Make Final Access Determinations for the Declared Fixed-line Services: Final Report*, July 2011, p.90.

## Appendix C. Case Studies – Shared Cost Allocation

This appendix summarises Australian and international regulatory approaches to cost allocation methodologies for shared assets.

### *ACCC FAD for fixed-line services*

The methodologies applied by the ACCC in the 2011 FAD for fixed-line services were based on relative usage of the assets in the FLSM to provide each of the declared services. Further, costs that could not be directly attributed to assets were allocated according to services based on a proxy that broadly reflected expected usage.<sup>41</sup>

The ACCC noted that the revenue share basis is an appropriate method to apply where alternate methods of attributing costs to services are not available,<sup>42</sup> ie, where costs cannot be allocated according to usage, a revenue share allocation may be appropriate. For example, the ACCC used a revenue share cost allocation for some asset classes, eg, indirect capital assets.<sup>43</sup>

### *Australian Energy Market Commission*

In November 2012 the Australian Energy Market Commission (AEMC) released a rule determination<sup>44</sup> for the electricity and gas sectors that included a discussion of how to treat the costs of shared assets. The AEMC stated that the shared cost adjustment mechanism should:<sup>45</sup>

- provide clarity and certainty on how the Australian Economic Regulator (AER) would approach sharing costs;
- provide cost reflective prices to consumers;
- promote innovation in investments; and
- be able to be implemented in practice.

The AEMC noted that the most obvious approach to allocating costs is to do so according to relative usage, for example, by technical or physical use. However, the AEMC also noted that another approach would be to allocate costs to regulated services according to the proportion of revenue derived from shared assets used to supply regulated services, relative to the proportion of revenue derived from those assets for unregulated services, ie, the revenue approach.

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<sup>41</sup> ACCC, *Inquiry to make final access determinations for the declared fixed-line services*, Final report, July 2011, p.95.

<sup>42</sup> *Op cit*, p.101.

<sup>43</sup> *Op cit*, 96.

<sup>44</sup> AEMC, *National Electric Amendment (Economic Regulation of Network Service Providers) Rule 2012 & the National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 23 August 2012.

<sup>45</sup> *Op cit*, p.194.

Notably, the AEMC's rule determination included a case study in which electricity poles were used by service providers to provide regulated services and by NBN Co for unregulated services. The costs of shared assets were allocated to regulated services according to physical and/or technical usage in the case study.<sup>46</sup>

### ***Australian Energy Regulator***

The Australian Energy Regulator's (AER's) draft shared asset guidelines were released in July 2013 and set out its proposed methodology for determining cost reductions for shared assets in accordance with the National Electricity Rules (NER).

The NER requires the AER's cost reductions to be reflective of the costs recovered via revenues from unregulated services.<sup>47</sup> The AER considers that this supports the use of relative revenues to assess the materiality of shared assets used for unregulated services and that unregulated revenues are the best indication of the extent of asset recovery achieved by service providers through charging for unregulated services.

The AER acknowledges that revenue is not a perfect measure of asset use; however, it considers that:<sup>48</sup>

'the weaknesses of revenue as a benchmark for asset use are less relevant in this case because cost reductions must reflect asset costs recovered from regulated and unregulated services respectively. We consider the relative size of the two revenue streams is the best indication of relative asset cost recovery.'

### ***Commerce Commission***

The Commerce Commission (the Commission) is New Zealand's competition enforcement and regulatory agency and, in 2010, it released a reasons paper in regard to the input methodologies for calculating prices for electricity line services and gas pipeline services. The Commission considered how costs should be allocated between electricity distribution providers (EDBs) and telecommunications companies that shared the poles from which their lines are strung. At the time, the avoidable cost allocation methodology (ACAM) was used by the EDBs.<sup>49</sup>

Under the ACAM, all shared costs are allocated to the regulated service. Under this approach, all of the costs related to the EDB's own poles, as well as the payments the EDB makes to access the poles owned by the telecommunication companies, were be allocated to the regulated

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<sup>46</sup> AEMC, *National Electric Amendment (Economic Regulation of Network Service Providers) Rule 2012 & the National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 23 August 2012, p.212.

<sup>47</sup> NER, clause 6.4.4(a) for distribution and clause 6A.5.5 for transmission.

<sup>48</sup> AER, *Draft Shared Asset Guidelines – Explanatory Statement*, July 2013, p.17.

<sup>49</sup> Commerce Commission, *Input methodologies (Electricity Distribution and Gas Pipeline Services)*, Reasons Paper, December 2010, p.87.

electricity service. The EDB was allowed to earn revenues sufficient to recover these costs. However, the revenue the EDB receives from charging telecommunications companies to access its poles would not count as regulated revenue. Therefore, the EDB would be able to recover the cost of its poles from regulated services and not share any of the benefit from the unregulated revenue with end-users.

The Commission noted that, in the long-term, businesses in competitive markets would expect to recover some proportion of shared costs. It therefore took the view that an approach that allocated all shared costs to the regulated businesses would not produce an outcome consistent with that which would occur in workably competitive markets.<sup>50</sup> The Commission concluded that:<sup>51</sup>

‘To promote outcomes consistent with those produced in workably competitive markets... all types of services should bear some portion of shared costs in the longer-term.’

Accordingly, the Commission recommended the application of the accounting based allocation approach, which allocates shared costs based on causal relationships,<sup>52</sup> ie, usage.

### *Ofwat*

Ofwat regulates the water and sewerage sectors in England and Wales. In October 2010 it released a discussion paper that addressed the treatment of shared assets. Ofwat’s cost allocation principles are that:<sup>53</sup>

- costs should be allocated in relation to the way in which resources are consumed;
- all costs must be allocated; and
- cost allocation must be fair and reasonable and there must be consistent treatment of costs for regulated and unregulated activities.

Ofwat’s approach to the allocation of shared costs to regulated services is set out in the regulatory accounting guideline 5, which states that:<sup>54</sup>

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<sup>50</sup> Commerce Commission, *Input methodologies (Electricity Distribution and Gas Pipeline Services)*, Reasons Paper, December 2010, p.68.

<sup>51</sup> *Op cit*, p.70.

<sup>52</sup> *Op cit*, p.78.

<sup>53</sup> Ofwat, *The treatment of regulated and unregulated businesses in setting price controls for monopoly water and sewerage services in England and Wales – a discussion paper*, October 2010, p.33.

<sup>54</sup> Ofwat, *Regulatory Accounting Guideline 5.04 – Guideline For Transfer Pricing in the Water Industry*, March 2005, clause 1.10.2.

‘The key principle is that costs should be allocated in relation to the way resources are consumed. Allocations based entirely on turnover, volume or direct labour rates should not be used as they are unlikely to reflect the activities involved.’

It follows that Ofwat has a preference for the usage allocation approach over the revenue approach.

### ***Ofcom***

Ofcom is the United Kingdom (UK) communications regulator and is responsible for regulating the UK television and radio sectors, fixed line telecoms, mobiles, postal services and the airwaves over which wireless devices operate.

In July 2013, Ofcom released a consultation document that proposed to allocate shared costs for local loop unbundled and wholesale line rental services on a per-line basis.<sup>55</sup> Ofcom has therefore proposed to allocate shared costs according to usage.

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<sup>55</sup> Ofcom, *Fixed Access Market Reviews: Approach to setting LLU and WLR Charge Controls*, August 2013, p.33.

## Appendix D. Case Studies – Revenue or Cost Approach

This appendix summarises a number of decisions by regulatory bodies in relation to how to take account of revenue from assets that provide regulated and unregulated services.

### *Electricity and gas distribution in Australia*

In 2012, the AEMC released a rule determination for the electricity and gas sectors that considered the merits of applying either a revenue or cost approach to a situation that is similar to the provision of the NBN services.<sup>56</sup>

The AEMC did not consider it appropriate to transfer a portion of profit or revenue derived from unregulated services to customers of regulated services. The AEMC noted that doing so would limit the revenue that could be earned from an unregulated service, which would have the effect of regulating the unregulated service.<sup>57</sup> Therefore, the AEMC applied the cost approach rather than the revenue approach.

Under the NER, the AER may make cost reductions:<sup>58</sup>

- of an amount that it considers reasonable to reflect asset costs recovered through charging for unregulated services;
- based on the use of the shared assets;
- that are no greater than the depreciated regulatory value of the shared assets;
- as part of the AER's distribution and transmission regulatory determinations, usually every five years; and
- that are forward looking and therefore based on forecasts.

The AER's approach to shared assets is:<sup>59</sup>

- not to make any changes if the unregulated revenues from shared assets is less than one per cent of the annual revenue requirement from providing the regulated service; otherwise
- to reduce the annual revenue requirement by ten per cent of the revenue earned from unregulated services, up to the depreciated regulatory value of the shared assets.

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<sup>56</sup> AEMC, *National Electric Amendment (Economic Regulation of Network Service Providers) Rule 2012 & the National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 23 August 2012.

<sup>57</sup> AEMC, *National Electric Amendment (Economic Regulation of Network Service Providers) Rule 2012 & the National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 23 August 2012, p.192.

<sup>58</sup> AER, *Better Regulation: Shared Asset Guideline*, November 2013, p.7.

<sup>59</sup> AER, *Better Regulation: Shared Asset Guideline*, November 2013, pp.11-15.

The AER considered that the fixed ten per cent provided transparency and certainty for both service providers and consumers.<sup>60</sup>

### *Ofwat*

Ofwat regulates the water and sewerage sectors in England and Wales and released a discussion paper that addressed the treatment of shared assets in October 2010. Ofwat applied the cost approach and considered the key benefits to be that it:<sup>61</sup>

- sends the clearest price signals to market participants because of cost reflective pricing;
- provides the best incentives to provide unregulated services, which can have benefits for regulated customers; and
- ensures that regulation remains focused only on services that should be properly subject to regulation, ie, unregulated services are not subject to regulation.

Ofwat noted that there are two main drawbacks of the cost approach, although it did not consider them to be significant enough to outweigh the benefits summarised above. The two drawbacks of the cost approach were said to be:

- that there is an incentive for a company providing regulated and unregulated services to cross-subsidise unregulated services – and so charge lower prices – using the revenue it receives from providing regulated services; and
- the need for a robust cost allocation to ensure no cross-subsidy makes the cost approach more complicated than the revenue approach. However, Ofwat expected that an efficient company would want to understand its cost drivers and have systems in place to allocate costs.

### *Office of the Rail Regulator*

The Office of Rail Regulation (ORR) determines the charges that Network Rail can make for the use of the rail network in Britain. It identified the key issue in deciding whether to use the cost or revenue approach as being which provides the most appropriate incentives to the access provider. The ORR considered that there was no strong case for a cost approach because:<sup>62</sup>

- it is unlikely to provide an incentive for Network Rail to improve its performance, given its weak corporate financial incentives;
- the ORR should not overly complicate the price control; and

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<sup>60</sup> AER, *Better Regulation: Explanatory Statement Shared Asset Guideline*, November 2013, p.32.

<sup>61</sup> Ofwat, *Future Price Limits – a Consultation on the Framework*, 2011, Appendix 8, p.2.

<sup>62</sup> ORR, *2013 Periodic Review - Setting the financial and incentive framework for Network Rail CP5*, May 2012, p.40.

- the ORR should avoid potentially distracting the industry when it needs to focus on maximising the benefit that flows to the railway as a result of Network Rail’s commercial activities.

However, the ORR did note that an advantage of the cost approach is the increased transparency resulting from separating costs and income for different parts of the business.

### *Civil Aviation Authority*

The Civil Aviation Authority (CAA) sets price caps on airport charges for core aeronautical activities at designated airports in the UK. In 2008, the Competition Commission recommended that the CAA continue to adopt a revenue approach. The main reasons for this recommendation were that:<sup>63</sup>

- the revenue approach could improve the efficient use of capacity, but the benefits were unlikely to be more than marginal;
- a move to the cost approach would result in a substantial transfer of income to airports from airlines and/or their passengers and be to their detriment, potentially undermining regulatory credibility and creating regulatory uncertainty;
- it was difficult, in practice, to allocate both investments and operating costs between aeronautical and commercial activities. To the extent that some of the judgements that had to be made were arbitrary, future disputes about cost allocation could harm relations between the airport and its users; and
- it made sense for commercial and aeronautical facilities to be regarded as one business because commercial revenues at the airports could not be generated without aeronautical facilities.

### *ACCC*

Our review indicated that the ACCC has a preference for the cost approach, for example:

- it applied a cost approach in AusPost’s 2002 Price Notification and continued its application in both the 2008 and 2010 price notifications,<sup>64</sup> and
- it adopted a cost approach to setting the prices for aeronautical services at Sydney airport in its 2001 pricing decision<sup>65</sup> and has since continued its application, most recently in the 2010 price notification.<sup>66</sup>

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<sup>63</sup> Competition Commission, *Stansted Airport Ltd Q5 Price Control Review*, October 2008, p.29.

<sup>64</sup> ACCC, *Australian Postal Corporation 2010 Price Notification*, Decision, May 2010, p.22.

<sup>65</sup> ACCC, *Sydney Airports Corporation Ltd Aeronautical Pricing Proposal*, Decision, May 2001, p.13.

<sup>66</sup> ACCC, *Sydney Airport Corporation Limited’s Price Notification for Regional Air Services*, Decision, September 2010, p.23.



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# NERA

ECONOMIC CONSULTING

NERA Economic Consulting  
Darling Park Tower 3  
201 Sussex Street  
Sydney NSW 2000  
Tel: 61 2 8864 6500 Fax: 61 2 8864 6549  
[www.nera.com](http://www.nera.com)