



Payments between NBN Co and Telstra and prices for the declared fixed line services

A REPORT PREPARED FOR HERBERT GEER

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Executive summary

- In 2011, NBN Co struck a deal with Telstra to rent infrastructure and pay for the disconnection and migration of customers to assist with NBN Co's rollout of the National Broadband Network (NBN). When struck, this deal was said to be worth around \$9 billion in post-tax dollars when future revenues were discounted back to June 2010. We estimate the current value of this deal, in 2013 dollars, as over \$17 billion (pre-tax).
- Although there is uncertainty about the future state of the NBN, the payments between NBN Co and Telstra have already commenced as the NBN has started to roll out. Telstra has already reported over \$200 million in revenues from these agreements and will continue to receive revenues where the network has been rolled out.
- At face value, it may appear that these payments would have little impact on Telstra's pricing of copper services. However, there is significant linkage between the assets used by NBN Co to build the NBN and the assets used by access seekers when they acquire 'declared' services under Part XIC of the Access Regime in the *Competition and Consumer Act 2010*. The new payments are therefore likely to increase Telstra's ability to recover shared asset costs.
- The issue examined in this report is what impact the current and future payments made by NBN Co to Telstra should have on pricing of the declared fixed line services. In essence, the question is whether there is some additional (net) benefit created for Telstra, and, if there is, whether some of this benefit should accrue to end-users who acquire the declared fixed line services (via access seekers).
- We start by considering what principles should apply to the treatment of this revenue; in our view, three principles are relevant:
 - *Regulation should facilitate recovery of efficient costs, and no more:* If the payments made are not incorporated into the ACCC's fixed line services model (FLSM), then end-users could be contributing to the *over*-recovery of the efficient costs of supplying certain assets and/or services.
 - *Access seekers and end-users should not compensate Telstra for lost profits:* In considering how to adjust the FLSM for payments received from NBN Co, an important principle should be that the FLSM should compensate Telstra for its direct costs of providing access, but not for any profits that it might lose where it might currently be able to recover revenue above these direct costs.
 - *Access services should bear a reasonable share of common costs, allocated on a transparent basis:* It is reasonable to expect that the declared access services should facilitate Telstra's recovery of common costs across its business,

and that this division of common costs should occur using criteria such as how much relative use is made of each kind of asset used to provide the declared services.

- From these principles, we draw the following conclusions about the necessary adjustments to the FLSM:
 - To prevent over-recovery of the efficient costs of providing access to the declared fixed line services, the payments between NBN Co and Telstra must be reflected in the ACCC's access pricing model. In particular:
 - The regulatory asset base (RAB) in the model should be adjusted to account for the disconnection payments. Access prices that are in the long-term interests of end-users allow the recovery of sunk costs in Telstra's RAB, but no more. Disconnection payments should not facilitate a recovery of more than the RAB value associated with assets stranded by the NBN; this will lead to unnecessarily high access prices for access seekers and ultimately end-users.
 - To adjust for the infrastructure rental payments, the FLSM must re-allocate costs to reflect NBN Co's usage of assets. Currently, there is wide scope for Telstra to be earning payments for shared infrastructure assets from two sources – NBN Co and access seekers. Alternatively, and in line with other regulatory precedents on shared assets, the ACCC should explicitly allow for a proportion of unregulated revenues to reduce the revenue requirement for regulated revenues.
- The Coalition's different approach to the NBN creates significant uncertainties, but does not affect principles of cost recovery. In particular, we observe that although the quantum of payments is likely to change as a result of a renegotiation, the declared position of the Government and Telstra is that Telstra will be made no worse off by the proposed changes to the deal. The existing deal therefore provides only a *lower bound* on the extent of the current problem that we observe.
- Overall, we consider that there is enough evidence to suggest that the ACCC needs to expediently address the problems we have identified in this report. Allowing the present situation to continue, where revenue continues to roll in for Telstra for shared assets with no flow on effects, is undesirable and contrary to the interests of end-users. Equally, as the payments are scheduled to increase as the pace of the roll-out increases, we can expect that the issues will become more significant over time.

1 Introduction

Frontier Economics has been asked by Herbert Geer to prepare a report analysing the appropriate regulatory treatment of NBN Co's payments to Telstra on the pricing of the six declared fixed line services:

- PSTN originating and terminating access (PSTN OTA)
- Local carriage service (LCS)
- Unconditioned local loop service (ULLS)
- Wholesale line rental (WLR)
- Wholesale ADSL service (WADSL)
- Line sharing service (LSS)

On 23 June 2011, NBN Co and Telstra signed definitive agreements that involved payments being made by NBN Co to Telstra for a range of matters. The two matters that represented the largest amount of these payments relate to NBN Co attaining access to Telstra's fixed line network infrastructure, and for the decommissioning of Telstra's copper network. This same infrastructure is used to provide the declared fixed line services.

1.1 Final access determinations

The ACCC will shortly commence the process of making final access determinations (FADs) for the declared fixed line services under section 152BC of the *Competition and Consumer Act 2010* (CCA).

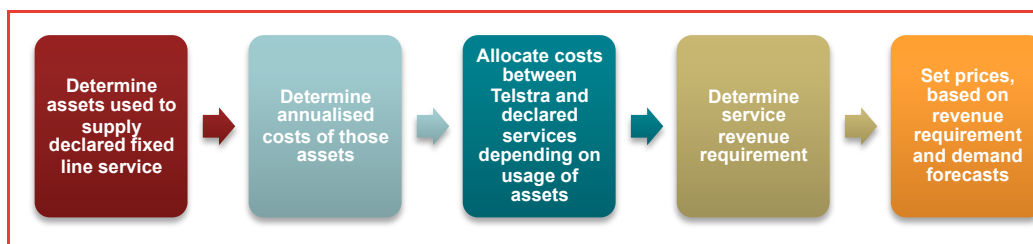
In making these FADs, we understand the ACCC will roll forward and update its fixed line services model (FLSM).

The FLSM is a 'building block' model which develops prices based on costing of the following four building blocks: operating expenditure, recovery of the value of assets (usually via a stream of depreciation payments); a commercial return on those assets, and tax expenses.

The FLSM captures all relevant assets that are used to supply the declared fixed line services. These assets are also used to supply other services; for example, the supply of ULLS requires use of Telstra's ducts. These same ducts are also used to supply transmission capacity services, which are not specifically costed in the FLSM.

A broad overview of the process for setting prices is as shown in Figure 1.¹

Figure 1: Overview of price setting in the FLSM



Source: Frontier Economics

As shown in the third step above, the FLSM allocates costs between Telstra's wholesale and retail use of assets, and access seekers' use of the declared fixed line services.

1.2 The NBN agreements

The agreements that Telstra has made with NBN Co cover the use of assets which are also used to supply the fixed-line declared services: ULLS, WLR, PSTN OA, LSS and WADSL. From the publicly revealed information on the agreements, the key assets to be used by NBN Co are duct access, dark fibre and exchange access. Ducts are used to provide ULLS and WLR services, while exchange access is largely used for core network services including PSTN OA, LCS and WADSL. Dark fibre is also acquired but this is not a major asset used to supply the declared fixed line services (it might be more relevant to declared transmission capacity services).

This overlap may be observed by highlighting the asset categories that are captured within the FLSM; that is, the assets which are used to supply the declared services (Table 1). We can see that asset categories such as 'ducts and pipes', 'network land', 'network buildings/support' and 'inter-exchange cables' are highly likely to overlap with the assets rented by NBN Co. Further, there are many categories of asset here which are likely to become redundant once the NBN has rolled out in a service area, such as copper cables and switching equipment.

¹ Some further adjustments are required to set prices. For example, prices are produced for a number of years and then smoothed across the regulatory period.

Table 1: Asset categories in the FLSM

CAN	Core
<ul style="list-style-type: none"> • Ducts and pipes • Copper cables • Other cables • Pair gain systems • CAN Radio Bearer Equipment • Other CAN assets • Other Communications Plant and Equipment • Network Land • Network Buildings/Support • Indirect Capital Assets 	<ul style="list-style-type: none"> • Switching Equipment - Local • Switching Equipment - Trunk • Switching Equipment - Other • Inter-exchange Cables • Transmission Equipment • Core Radio Bearer Equipment • Other Communications Plant and Equipment • Network Land • Network Buildings/Support • Indirect Capital Assets • LSS equipment • Data equipment (added 2012)

Source: ACCC FLSM

These agreements raise the issue of how the ACCC should treat payments from NBN Co to Telstra in the FLSM, and hence on the price of the declared fixed line services. It further raises questions about how these payments might affect other regulated services using Telstra's network, such as the duct access service and the exchange building access service, but which are not explicitly costed using the FLSM.

A further complicating factor is the change in Federal Government. The Coalition's new NBN policy is likely to materially affect the Telstra and NBN Co agreements. In particular, it appears that copper may well be purchased or rented as well as, or instead of, ducts. This suggests that the ACCC's amendments to the FLSM should be sufficiently flexible to take into account revised agreements, if possible.

1.3 The issues examined in this report

The issue that Frontier examines in this report is what impact the current and future payments made by NBN Co to Telstra should have on the costing and pricing of the declared fixed line services.

The NBN Co – Telstra payments may have impacts on:

- the regulatory asset value attributable to the sunk network assets
- the allocation of costs between Telstra and access seekers

As we have noted, some of these payments may change under the Coalition's preferred NBN model. Regardless of the particular form of the new agreement,

we suggest that the ACCC will need to develop appropriate *principles* for the treatment of this revenue in the model.

The report is structured as follows:

- In section 2, we outline the nature of the agreements, drawing on our analysis of publicly-available information
- In section 3, we develop principles for the treatment of the payments to Telstra in the FLSM
- In section 4, we consider the disconnection payments and how these should be treated
- In section 5, we consider the infrastructure rental payments and how these should be treated
- In section 6, we briefly consider the Coalition's proposed changes and how these may affect the conclusions in sections 4 and 5.

2 The nature of the agreements

On 23 June 2011, NBN Co announced that it had entered into a binding definitive agreement with Telstra (the Definitive Agreement) that, *inter alia*:

- Provided NBN Co with access to Telstra infrastructure over a minimum 35-year period. The infrastructure involves:
 - Underground ducts and pits through which the NBN fibre will run – this involves the use of “fit-for-use” infrastructure within NBN Co’s network design (**duct access**)
 - Dark fibre that NBN Co can use for backhaul purposes (**dark fibre access**)
 - Rack spaces in Telstra exchanges (**exchange access**)
- Involves NBN Co making payments to Telstra as it progressively disconnects customers from its legacy copper fixed-line network and broadband (but not pay TV) customers from its HFC network, and then migrates these customers to the NBN
- Included a fixed-line network preference agreement for Telstra to use NBN Co’s network.

The Definitive Agreement also contained terms relating to funding for the delivery of a Universal Service Obligation; and agreements on key product features and price commitments relating to NBN Co’s basic voice and data offering. These additional provisions are not, however, the subject of this report.

2.1 Telstra benefits from the deals in a number of ways

At the time it announced the agreement, NBN Co indicated that:

Total payments over time are estimated to deliver approximately \$9 billion in June 2010 post tax net present value to Telstra.²

As discussed further below, the way in which these payments has been reported tends to undersell the value of the agreement in monetary terms. This is because the agreements are reported in post tax real terms. Not only does the value of the payments seem higher if they are converted into nominal terms, we believe the discount rate used by Telstra and NBN Co to value the size of the payments is too high.

² NBN Co, *NBN Co and Telstra Sign Binding Definitive Agreements*, Media Release, 23 June 2011, at p.2.

In addition to these monetary benefits of the agreement, however, there are a number of other terms and conditions attached to the payments that increase the value of the Definitive Agreement to Telstra. These are set out below.

2.1.1 The agreement appears to guarantee certain amounts of revenue for Telstra

The payments Telstra expected to receive under the Definitive Agreements were dependant on a number of factors. In this respect, Telstra noted that its:

... assessment of the appropriate NPV of payments to be received under the Definitive Agreements depends on a number of factors, including:

- NBN Co proceeding with its rollout in accordance with its published Corporate Plan dated 17 December 2010 ...³

It is well accepted now that NBN Co has needed to revise its rollout targets over time, as it has failed to meet its initial expectations. A Strategic Review recently conducted by NBN Co found that:

At 30 September 2013, the rollout of the brownfields FTTP network was 48 percent behind the planned Premises Passed in the Corporate Plan, with 227,483 Premises Passed at that date. Of these premises, only 153,977 are Serviceable (i.e. premises that are available to be connected) by NBN Co. The greenfields and Fixed Wireless rollouts are also behind the Corporate Plan.

The Revised Outlook for the current deployment plan indicates that the fibre rollout project will take three years longer to complete than indicated in the Corporate Plan, with a revised end date of June 2024. The Revised Outlook for Premises Passed at June 2014 is 357,000 compared to 1,129,000 in the Corporate Plan.⁴

That NBN Co's rollout has not met the targets released in 2010 suggests that Telstra would not have received payments yet in line with those expected at the time the Definitive Agreements were announced.

That said, it is also clear that the Definitive Agreements contain a number of clauses that guaranteed a certain level of payment to Telstra, irrespective of the activities undertaken by NBN Co. In this regard, Telstra noted that:

Telstra will provide NBN Co with large scale access to certain infrastructure – dark fibre, exchange space, lead-in-conduits and ducts – at prices based on **committed large volume levels of usage and availability**.⁵

In this respect, Telstra has also noted that:

³ NBN Co, *NBN Co and Telstra Sign Binding Definitive Agreements*, Media Release, 23 June 2011, at p.2.

⁴ NBN Co, *Strategic Review – December 2013*, Commercial in Confidence – Final Report, at p. 11.

⁵ NBN Co, *NBN Co and Telstra Sign Binding Definitive Agreements*, Media Release, 23 June 2011, at p. 3.

NBN Co has committed to pay for, and Telstra has committed to make available, certain minimum quantities of infrastructure which meets the agreed fitness standards. These minimum quantities reflect large volume levels of usage and availability and large scale access to each infrastructure type.

...

The payment and availability commitments are based on mechanisms known as “Provide or Pay” (or “POP”) and “Take or Pay” (or “ToP”). ... The ToP is a mechanism to encourage NBN Co to maximise the use of the infrastructure that Telstra makes available.⁶

While it is not clear from publicly available information how extensive these take or pay arrangement are, it is clearly the case that they are embedded in the Definitive Agreement.

Similarly, in the event that NBN Co does not fully deploy its network, or the rollout is very slow, Telstra is entitled to some compensation from NBN Co. As noted by Telstra:

If a permanent cessation of rollout or very slow rollout occurs ... NBN Co will, subject to limited exceptions, compensate Telstra for Telstra being left with a geographically dispersed network. This compensation is on a sliding scale from a maximum of \$500 million (if the event occurs when NBN Co’s fibre rollout has reached 20% of NBN Co’s current coverage target of 93% of premises in Australia) reducing to zero (if the event occurs when NBN Co’s rollout has reached that current coverage target). Compensation is not payable if the event occurs before the rollout has reached the 20% threshold.⁷

It is highly unlikely that NBN Co’s rollout will have yet reached 20% of NBN Co’s rollout target from June 2011. However, it is the case that the current government is reviewing the way in which the NBN will be rolled out, and the extent to which it will rely on a FTTH network. It is also possible that NBN Co will continue to rollout FTTH to many consumers, even if it does not deploy a complete FTTH network. In this regard, the recent Strategic Review by NBN Co recommended that:

NBN Co recommends that it develops an optimised multi-technology approach to rolling out the NBN that balances fast deployment of 50Mbps broadband with better economics, to the highest number of Australians. This approach delivers access to at least 50Mbps to ~90 percent of the fixed line footprint and 100Mbps to 65-75 percent by CY19, which is faster than the Revised Outlook. NBN Co will decide on its exact priorities after consultation with industry, Government and other stakeholders. A high-level assessment of a multi-technology approach suggests that the eventual optimal mix of technologies in the fixed line footprint could be in the range of:

- FTTP to ~20-26 percent of premises;

⁶ Telstra, *Telstra signs NBN Definitive Agreements*, Attachment to Media Release, 23 June 2011, at p. 12.

⁷ Telstra, *op. cit.*, at p. 9.

- FTTN/dp/B to ~44-50 percent; and
- HFC to ~30 percent.⁸

Further, the Strategic Review recommended that:

FTTP ... continue to be built until CY18 to maintain momentum.⁹

The extent to which Telstra will be able to claim compensation for a network rollout that is incomplete (or slow) is unclear, but will likely hinge on the revised government plans for the rollout of the NBN.

2.1.2 Telstra may be able to earn revenue from NBN Co and access seekers on the same line at the same time

The requirement on Telstra to disconnect a customer on its network and migrate it to the NBN does not apply immediately from the time when NBN Co deploys its network to cover that particular customer. Instead, the requirement to disconnect customer is contingent on the number of premises passed by the NBN in the “rollout region” in which the customer’s premises sits, and the timing of the rollout of the network. In this respect, Telstra states that:

... the disconnection must be completed within 18 months of NBN Co declaring that rollout region to be ready for service (which cannot happen until at least 90% of the premises in that rollout region are passed by NBN Co fibre.¹⁰

The consequence of this is that it is possible that Telstra could earn revenue both from access seekers and NBN Co to cover the costs of certain infrastructure used to provide fixed-line services at the same time. That is, it is conceivable that Telstra could be earning revenue from NBN Co for access to infrastructure such as ducts and pipes while also earning revenue from access seekers (and its own retail customers) for the provision of fixed line access services provided over the same ducts and pipes. This could occur:

- for the construction period until 90% of premises in a given rollout area are passed by NBN Co fibre; and
- for a further 18 months after that until the disconnection obligation applies.

As indicated elsewhere in this report, this enables Telstra to potentially “over-recover” the costs of the infrastructure used to provide declared fixed-line services if this is not taken into account in the FLSM.

⁸ NBN Co, *Strategic Review*, op. cit., at p. 18.

⁹ *Ibid.*

¹⁰ Telstra, *op. cit.*, at p. 8.

2.1.3 Disconnection payments were intended to compensate Telstra for lost revenues and margins from the disconnection of the copper network

Telstra noted at the time it announced the deal that:

The agreements provide Telstra with replacement revenue, through disconnection payments as the rollout of the NBN occurs, and new revenues, through access payments for the use of Telstra's infrastructure over an assumed average 30 year period.¹¹

While it is clearly not the case that payments made by NBN Co to Telstra were determined in accordance with the requirements of Part XIC of the Competition and Consumer Act, it is also clear that payments of this nature would have been highly unlikely to have been set by the ACCC if it were determining prices under the Act. This is because the payments appear to compensate Telstra for some lost retail margins that are expected to occur as a result of the Definitive Agreement, because it will increase the ease with which Telstra's competitors – via NBN Co – can gain access to Telstra's infrastructure at prices that will be regulated by the ACCC.

This is a significant benefit to Telstra because if access to its infrastructure was regulated under Part XIC of the Competition and Consumer Act or regulated under Schedule 1 of the *Telecommunications Act 1997*, the ACCC would be required to set prices that have regard to the direct costs Telstra faces when providing access to a relevant service provided over this infrastructure.¹² Further, the explanatory memorandum to the legislative amendment that introduced Part XIC into the Act indicated that:

... 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market.¹³

2.1.4 Payments from NBN Co to Telstra are lower risk than normal commercially agreed future payments

In estimating the value of payments that will be made to it by NBN Co, Telstra indicated it had used:

¹¹ Telstra, *Telstra signs NBN Definitive Agreements*, Media Release, 23 June 2011, at p. 2

¹² See s. 152AH(1)(d) of the Act and clauses 18 and 36 of Schedule 1 of the *Telecommunications Act 1997* and regulation 8(1) of the *Telecommunications (Arbitration) Regulations 1997*.]

¹³ Trade Practices Amendment (Telecommunications) Bill 1996, *Explanatory Memorandum*, at p. 44.

... a discount rate of 10%, being Telstra's internal weighted average cost of capital.¹⁴

There are good reasons to believe, however, that a lower discount rate should be used to estimate the real value of the payments that will be made to Telstra. This is because information released by Telstra at the time the Definitive Agreement was announced noted the existence of a Commonwealth Guarantee. In this regard, Telstra noted that:

The Commonwealth has guaranteed to Telstra the payments required to be paid by NBN Co to Telstra in connection with the Guaranteed Agreements.¹⁵

In our view, agreed payments guaranteed by the Commonwealth should have a lower risk of default than those agreed to in other commercial negotiations. We believe this should be reflected in a lower discount rate for these payments.

2.1.5 Telstra expects to save on some forms of operating expenditure as a result of the agreement

In material released when it announced the agreement, Telstra indicated that expected to:

... incur the following cash expenditure to support these arrangements over their life:

- approximately \$0.9 billion (post-tax NPV) for necessary work on infrastructure and customer migration costs. These will be offset through savings in legacy network, product and IT investment, therefore enabling them to be covered within Telstra's existing 14% capex to sales target;
- approximately \$0.6 billion (post-tax NPV) for necessary work on infrastructure and maintenance activities, which are covered within existing operational expenses, as Telstra routinely projects such costs on an ongoing basis;
- approximately \$0.5 billion (post-tax NPV) incremental operational expenses, spread over 10 years, for those customer migration costs and the necessary work on infrastructure which have been brought forward as a consequence of the NBN rollout. These costs will be absorbed within existing expenditure profiles.¹⁶

It is hard to know precisely how to interpret these statements. However, it does suggest that while additional expenses will be incurred as a result of the transition to the NBN, Telstra's overall levels of expenses will not be expected to increase. This suggests, therefore, that Telstra expects to make savings in other parts of its

¹⁴ Telstra, *Telstra signs NBN Definitive Agreements*, Media Release, 23 June 2011, at p. 2 of Appendix titled "Financial summary of the proposed arrangements".

¹⁵ Telstra, *op. cit.* at p. 24.

¹⁶ *Ibid.*, at p. 3.

business such that the effect of these additional expenses is to be cash flow neutral on its business operations.

2.2 Telstra has already started receiving payments from NBN Co

At the time the Definitive Agreements were announced, NBN Co stated that:

... NBN Co and Telstra have negotiated interim arrangements for **immediate access** to Telstra infrastructure.¹⁷ [emphasis added]

This suggests that the arrangements were to take immediate effect, and that Telstra could have been entitled to accrue revenues from NBN Co as early as June 2011.

That Telstra would appear to have been entitled to immediately start receiving payments from NBN Co is supported by Telstra's 2013 Annual Report, which reports:

... \$71 million of infrastructure access revenue from the NBN agreements ...¹⁸

...

... other sales revenue includes revenue for the build of National Broadband Network (NBN) related infrastructure of \$168 million (2012: \$67 million) ...¹⁹

To the best of our knowledge, no payments from NBN Co to Telstra have been taken into account thus far when estimating prices for services in the FLSM for the 2011-12; 2012-13 or 2013-14 financial years.

2.3 The payments will gradually increase over time

The media release made by Telstra at the time when the deal was announced indicated that:

- \$4 billion (in post-tax NPV terms) related to **disconnection payments** and the sale of lead-in conduits, and that the NPV of these payments was estimated using cash flow modelling over a 10-year period. Telstra also indicated, at the time, that it expected that the annual total of these disconnection payments would increase until 2014 as the NBN rollout gains momentum, but then be relatively constant throughout the remainder of NBN's scheduled 10 year rollout.

¹⁷ NBN Co, *NBN Co and Telstra Sign Binding Definitive Agreements*, Media Release, 23 June 2011, at p.2.

¹⁸ Telstra, *Annual Report 2013*, at p. 13.

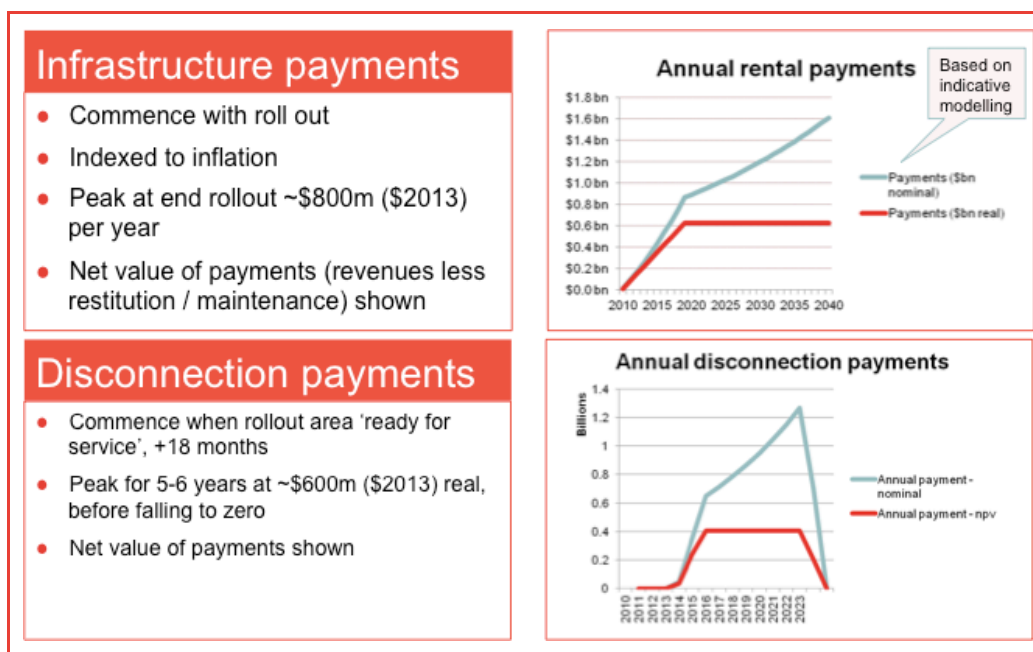
¹⁹ *Ibid.*, p. 99.

- \$5 billion (in post-tax NPV terms) relates to **infrastructure payments**, and that the NPV of these payments were estimated using cash flow modelling over an average of 30 years. Telstra further indicated that the annual infrastructure payments are likely to increase over the scheduled 10-year rollout. They are then expected to increase with CPI for the remainder of the infrastructure access period.

Hence, while payments in the early years following the announcement of the Definitive Agreements may have been relatively small, these are expected to increase significantly over time. This means that for so long as the ACCC does not make suitable adjustments to its FLSM to appropriately account for any such payments, any undesirable effects of not doing so will get greater with time.

We have undertaken some simple illustrative modelling to show how the payments are likely to be staged, and what magnitude they are likely to be in annual nominal and real terms. We have deducted from the NPV figures described above the NPV of costs that will be incurred to supply these services, meaning that we show the *net* rather than the gross value of payments. This is shown in Figure 2. At the peak in 2027, we calculate total nominal payments of around \$2.7 billion.

Figure 2: Indicative path of disconnection and rental payments



Source: Frontier Economics

2.4 The payments are substantial

The payments from NBN Co to Telstra are substantial – and, we believe, far larger than the ‘headline’ figures that have been publicly reported.

2.4.1 Decommissioning payments

Telstra has calculated the value of the decommissioning payments as \$4 billion, calculated in post-tax, net present value terms where the payments are discounted back to June 2010. The discount rate that Telstra has used to discount returns is 10 per cent, said to be Telstra's weighted average cost of capital.

There may be various reasons why Telstra has chosen to prepare the figures in this way. We are uncertain as to what the specific rationale is; however, it is obvious that the way they have been calculated presents a very conservative approach to valuation.

To make the reported disconnection payments more comparable with Telstra's regulatory asset base – the amount that represents the allowable recovery of Telstra's sunk costs associated with supplying the declared fixed line services – certain adjustments to the \$4 billion figure would need to be made. In particular:

- The \$4 billion may be reduced to determine a net payment figure – less associated costs of disconnection.²⁰
- The figure can be brought forward to reflect values in today's dollars (\$2013) rather than in \$2010.
- The payments should be converted to pre-tax by reversing the tax paid in the \$4 billion less costs figure. Telstra will receive cash payments from NBN Co, but will in turn need to pay tax on the net amount – i.e. the payments less any costs incurred to receive the payments. A more accurate comparison with the value of the RAB (the regulatory value attributable to sunk assets) means that the tax adjustments in the \$4 billion figure should be reversed. How big this adjustment needs to be depends on the costs that might be associated with incurring the payments from NBN Co. Telstra reports that these costs are of the order of \$1.15 billion, although as we have described, it may be that the true costs are lower than this due to savings made elsewhere.
- The final adjustment is to reduce the discount rate applied to the payments. In our view, using a 10 per cent discount rate is not justifiable for the following two reasons:
 - It is well in excess of Telstra's regulatory WACC for PTSN services of around 8-9 per cent²¹
 - As we have described in Section 2, the payments from NBN Co to Telstra are guaranteed by the Commonwealth Government. This means

²⁰ We have not factored in any scrap valuation of the copper network. This is a potential additional source of (net) revenue.

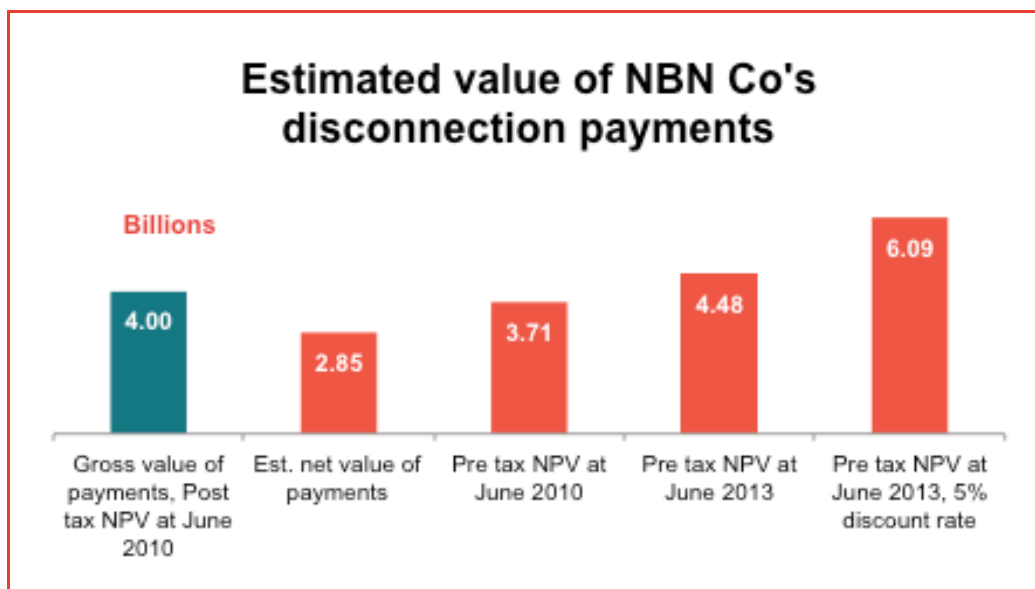
²¹ For the last FAD, set in 2011, Telstra's "vanilla" WACC was set by the ACCC at 8.54% (nominal).

that they are essentially riskless and should be discounted at a much lower rate than 10 per cent. Holders of riskless debt (like long term government bonds) only demand less than 5 per cent (nominal) returns.

To make this final adjustment, we modeled the likely timing of the payments given a rollout schedule consistent with earlier NBN Co forecasts from 2012. We then converted this to a stream of annual nominal payments, and then discounted these payments back at the lower WACC. Although this timing will no longer be accurate, as the rollout has been delayed, given Telstra's position that it will no worse from any new deal with the Government, these figures will presumably provide a baseline for its negotiating position.

The impact of these adjustments is shown in Figure 3 below.

Figure 3: Value of disconnection payments



Source: Frontier Economics

We can further draw a comparison between these disconnection payments and the regulatory value of Telstra's assets that will become stranded as a result of the original agreements (Figure 4). This is primarily assets such as copper cables, data and switching equipment (noting that copper cables may no longer be stranded under a revised agreement). It excludes assets that will be re-used, or are not stranded (such as land, which may be re-used or sold). These estimates have been derived from the ACCC's FLSM, and indicates the disconnection payments are likely to be more than [c-i-c ~~3%~~ c-i-c] per cent higher than the RAB value of assets that will be stranded.

Figure 4: Comparing the disconnection payments with Telstra's RAB [c-i-c]



Source: Frontier Economics

2.4.2 Infrastructure rental payments

We make a similar set of adjustments to the infrastructure rental payments, to make these more consistent with current day revenue flows, and to reflect their post tax and NPV nature.

As described, these payments commence when roll out commences in a particular service area, as access to the ducts and other facilities will be needed during construction. We have modelled these in a way that is consistent with producing an overall post tax NPV of \$5 billion. We calculate that the net value of the payments (payments less associated costs, which are reported by Telstra) is in the realm of \$600 million a year in real terms, reaching \$1.6 billion a year in nominal terms at the end of the agreement.

We find again that reversing some of the conservative valuation assumptions markedly increases the value attached to these payments.

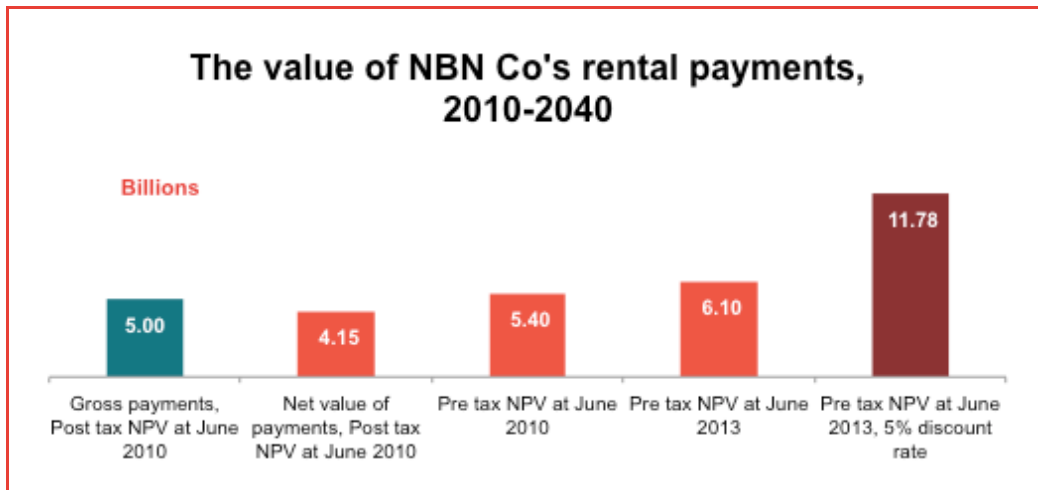
Our amendments were as follows:

- Determine the net value of the payments (gross payments less associated costs)
- Convert the payments to pre-tax
- Bring the value of the payments forward to the current year
- Model the likely timing of the infrastructure payments, based on an incremental rollout approach
- Convert these to nominal payments at the 10 per cent WACC (equivalent to a peak payment of around , and then re-calculated at a lower rate.

The outcome of these adjustments is shown as follows in Figure 5– resulting in a revised NPV figure of more than double the reported amount.

Figure 5: Value of the infrastructure rental payments





Source: Frontier Economics

3 Relevant principles for the treatment of the payments in setting fixed line prices

3.1 Legislative criteria

The ACCC must have regard to the criteria specified in subsection 152BCA(1) of the CCA when making an FAD.²² These criteria are:

- a. whether the determination will promote the LTIE of carriage services or services supplied by means of carriage services
- b. the legitimate business interests of a carrier or CSP who supplies, or is capable of supplying, the declared service, and the carrier's or provider's investment in facilities used to supply the declared service
- c. the interests of all persons who have rights to use the declared service
- d. the direct costs of providing access to the declared service
- e. the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else
- f. the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility, and
- g. the economically efficient operation of a carriage service, a telecommunications network or a facility.

To consider the likely impact of particular terms and conditions on the LTIE, the CCA requires the ACCC to have regard to whether the terms and conditions are likely to result in:

- promoting competition in markets for carriage services and services supplied by means of carriage services
- achieving any-to-any connectivity, and
- encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which listed carriage services are supplied, and any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

The ACCC has enunciated its interpretation of these legislative provisions, together with the interpretations of the Australian Competition Tribunal (ACT), on a number of occasions. In the following sections, we discuss three principles

²² These criteria are mirrored in regulation 8(1) with regard to determining facilities access disputes.

which are drawn from the legislative criteria and from the ACCC / ACT interpretations which we consider are helpful to deciding how the FLSM needs to be adjusted for the NBN Co – Telstra payments.

3.2 Regulation should facilitate recovery of efficient costs, and no more

The ACCC has previously stated that it uses the FLSM to estimate prices based on the efficient costs of supplying the declared fixed line services.²³

The ACCC does this because recovery of efficient costs is consistent with several of the legislative criteria. In particular, such prices will:

- Promote the LTIE by promoting competition:

The ACCC considers that the prices included in the FADs reflect efficient costs and will promote competition in the markets for carriage services, thereby promoting the LTIE.²⁴

- Promote the LTIE by promoting efficient investment and efficient use of infrastructure:

Setting prices that allow the access provider to recoup its efficiently incurred costs, including a commercial return on its investments, will also encourage the efficient use of, and investment in, the infrastructure used to provide the declared fixed line services.²⁵

- Be consistent with the legitimate business interests of access seekers:

The ACCC considers that the legitimate business interests of the access provider are promoted by setting access prices that allow it to recover its efficient costs of supplying the declared fixed line services. Wholesale access prices that reflect efficient costs will support efficient investment decisions by the access provider.²⁶

The implication of the first principle is that the FLSM should not facilitate Telstra earning excessive returns on the declared fixed line services.

A complication arises due to the extent of shared infrastructure between the declared fixed line services, and Telstra's other wholesale and retail services. For example, NBN Co is seeking access to Telstra's ducts, which are used to provide ULLS and WLR services. The concern is that if the payments made are not correctly incorporated into the FLSM, then access seekers could be contributing

²³ ACCC, Final Report, July 2011, p. 143.

²⁴ *ibid.*

²⁵ *ibid.*, pp.143-144

²⁶ *ibid.*, p. 145.

to the *over*-recovery of the efficient costs of supplying certain assets and/or services.

3.3 Access seekers should not compensate Telstra for lost profits

In considering how to adjust the FLSM for payments received from NBN Co, an important principle should be that the FLSM should compensate Telstra for its direct costs, but not for any profits that it might lose where it might be able to recover revenue greater than these direct costs.

This principle is consistent with the ACCC's previous statements about the use of the FLSM to recover direct costs:

The ACCC has identified and included the direct costs of providing access to the declared fixed line services in the FLSM. The cost allocation factors used in the FLSM allocate directly attributable costs to the relevant service. For costs that cannot be directly attributed to services, the cost allocation factors allocate a share of these indirect costs to services based on allocation rules broadly related to the service's usage of network assets.²⁷

What we mean is that to the extent Telstra can recover more than its costs of supplying the declared fixed line services, it should not be empowered to do so through the FLSM. This would not be consistent with allowing the recovery of efficient costs.

As an illustrative example, suppose the revenue requirement from the FLSM for an asset type was \$100. Prior to the NBN, costs are allocated such that Telstra's average costs of supplying access seekers was \$20, and its own retail and wholesale customers \$80. Now suppose, however, that as a result of the Definitive Agreements, Telstra is paid an additional \$20 from NBN Co, but its retail revenues fall to \$70. In these circumstances, it would now recover \$110 in total for this asset type. This would enable it to recover more than the efficient costs of the asset used to provide its services. Further, the additional \$10 might effectively be seen as a way that Telstra is able to recover margins lost from supplying retail services (if the NBN services were operational and disconnection payments had been made).

²⁷ *ibid.*, p. 142.

Figure 6 Example of cost over-recovery as a result of NBN payments

Service type	Access seeker	Pre-NBN cost allocation / revenue	During NBN revenue
Access services	Other access seekers	\$20	\$20
	NBN Co	\$0	\$20
Retail services		\$80	\$70
Total		\$100	\$110

Source: Frontier

This principle is particularly important. The concern if this principle is not respected was effectively described by the ACCC in 2011:

The ACCC has noted reported comments by Telstra's chief executive, in a recent media interview, that the proposed deal between Telstra and NBN Co will compensate Telstra for loss of market share. The ACCC considers that Telstra would be compensated twice if any compensation for loss of market share were to be allowed in estimating prices for the declared fixed line services.²⁸

Another example where the ACCC has (appropriately) taken into account cost recovery across different services relates to the line sharing service (LSS). As we note in Box 1, a key issue in the pricing of the LSS was that a single line could be used to produce a retail line rental service by Telstra, and a wholesale service by access seekers to provide retail high-speed broadband services to the same end-user. At issue in this case, was what amount of cost should Telstra be entitled to recover from access seekers to help it recover the cost of a shared line in circumstances where it was already recovering some (or all) of these costs from its own retail consumers through the pricing of retail line rental services. The ACCC found that not taking the retail revenue from line rental services into account would lead to cost over-recovery and distortions in competition between Telstra and access seekers.

Box 1: Recovery of costs of line sharing services

A key issue in the Chime Communications Pty Ltd and Telstra arbitration was 'whether a contribution to the costs of the line over which the LSS is supplied should be included in the LSS rental charges to apply until 31 December 2007. The ACCC decided against doing so

²⁸ *ibid.*

ACCC pricing principles on LSS access prices requires that LSS access prices should not include a contribution to costs that are recovered in other charges. While economic efficiency may be enhanced through the inclusion of a contribution to line costs in LSS rental charges, in the cases where line rental charges fully recover line costs, the inclusion of such a contribution would lead to an over-recovery of network cost. This in turn, would lead to an unfair competitive advantage on Telstra in downstream markets, as it would need to recover less revenue in these markets, as compared to access seekers, in order to fully recover the costs of its business. In these circumstances, reductions in charges for other network services, such as wholesale line rental, are needed in order to avoid any such 'double dipping'. As a result, the ACCC decided against including a contribution to line costs in LSS rental charges:

Hence, to the extent that an access provider was recovering all of its line-related costs from other revenue sources, the Commission believes it would be inappropriate for the access provider to recover an additional amount of its line costs in the price of a LSS.

Source: ACCC, Access Dispute between Chime Communications Pty Ltd and Telstra Corporation Limited 2007, p. 24; Line Sharing Service Declaration 2002 pp. 90-98

3.4 Access services should bear a reasonable share of common costs, allocated on a transparent basis

The infrastructure used to supply the declared fixed line services is shared both between Telstra and access seekers, and between different declared fixed line services.

Although in principle efficient pricing might only require the recovery of marginal or incremental costs, in practice, prices need to be set to allow Telstra to recover the common costs of providing shared infrastructure across the services which benefit from that infrastructure.

This sharing of infrastructure requires that the costs of providing the infrastructure be allocated between Telstra's retail and wholesale services, and the declared fixed line services. The ACCC has previously expressed the view that usage of assets is an appropriate cost allocator:

The PSTN is used to provide a range of services, including the six declared fixed line services, other declared services and Telstra's retail services.

The cost allocation factors used in the FLSM ensure that costs are allocated to services based on relative usage of assets in supplying each of the services using that asset. Where costs cannot be directly attributable to assets, such as network buildings and indirect capital assets, the cost allocation factor attributes a share of costs based on a proxy measure that broadly reflects expected usage of the relevant assets.

The cost allocation factors allocate an appropriate share of costs associated with a network asset to all of the services provided using that asset.²⁹

Some costs are allocated on a ‘revenue share’ basis, where there is no specific usage information. The revenue share approach determines cost allocation factors for these assets based on the average allocation to the relevant service for assets where costs can be attributed more directly.

While the ‘usage of assets’ approach to common cost allocation has the advantage of being relatively transparent and fair, a particular issue here is how to take into account usage of assets by NBN Co. As we discussed in section 5, NBN Co’s rental of assets may not show in the ACCC’s usage allocators and so may not reduce the amount of cost allocated to access seekers. This may suggest that costs should be re-allocated on the basis of a more suitable cost allocator. An alternative is the approach taken by the AER to the use of shared assets, described in box 2 below.

Box 2: The AER’s Shared Asset Guidelines

The AER has recently issued a guideline on the treatment of revenues from shared assets used to provide both regulated and unregulated services. In this guideline, the AER notes that:

“In some circumstances, it is possible for an electricity network service provider to invest in an asset and require electricity consumers to pay for the asset in full and also use that asset to earn additional revenues from other consumers. This creates the problem of potential cost over recovery.

There are already measures in place to help prevent this problem. These measures include regulatory instruments called Cost Allocation Methods and audit requirements for regulatory reporting statements. These sorts of measures are discussed later in this document and are particularly aimed at ensuring electricity customers do not pay for the costs of providing other services. It seems, however, that existing measures do not go far enough when asset costs have not been allocated to different services from the outset or use of the asset has changed.”

These circumstances seem to translate reasonably well to the issue we consider in this report – that the cost allocation methods may no longer be appropriate. The AER’s key proposal was to use a ‘revenue benchmark’ for material use of shared assets for unregulated services – that is, take into account the revenue earned from these services in setting regulated services prices. The AER suggested that the relative size of the two (regulated and unregulated) revenue streams was a reasonable indication of relative asset cost recovery.

The AER proposed a specific method to adjust a service provider’s regulated revenues. It proposed to reduce regulated revenues by a fixed 10 per cent of the value of unregulated revenues earned with shared assets. So, for example, if a regulated asset was initially recovering \$100 in revenue, but when shared for another purpose recovered another \$50, then \$5 of the additional revenue would be applied as a deduction to the regulated revenue of \$100 – meaning a reduction down to \$95.

²⁹ *ibid.*, p. 97.

This was thought to achieve a balance between sharing with consumers the gains from asset sharing and maintaining some incentives to use shared assets.

Source: AER, Better Regulation Guidelines: Shared Assets, November 2013

4 Customer disconnection payments

As noted in Section 2, the Definitive Agreements between Telstra and NBN Co provide for progressive payments upon decommissioning of Telstra's copper network. We also highlighted that the payments from NBN Co to Telstra are substantial.

As indicated in Section 3, we think two important principles that the ACCC should be guided by when considering the implications of the NBN Co payments on the FLSM model are that:

- Regulation should facilitate the recovery of efficient costs, and no more
- Access prices should not compensate Telstra for lost profits that result from competition.

We believe both of these payments are potentially relevant to considering how the ACCC should take account of disconnection payments made by NBN Co to Telstra.

In this respect, it is important to understand what happens if Telstra disconnects a customer from its copper network, and migrates this customer to the NBN. In these circumstances, Telstra will no longer be able to earn revenues that enable it to recover the costs of infrastructure it has previously invested in to provide fixed-line services.

Accordingly, it is reasonable that Telstra should be compensated when it disconnects customers from its copper network to compensate it for the value of sunk assets which will be stranded as a result of the switchover to the NBN. This would be consistent with Telstra's legitimate commercial interests.

Telstra's RAB was fixed in 2011, meaning that it will not be re-valued over time. It is, however, updated over time to reflect net capital additions (new capex less depreciation). The opening RAB value was \$15.516 billion as at 1 July 2011, although it has been falling through the course of the most recent regulatory period as depreciation is higher than new capital expenditure.

At the time the RAB was set, the ACCC noted this value protected Telstra's legitimate commercial interests:

"In determining an initial RAB value for the CAN and Core assets, the ACCC considered the legitimate business interests of the access provider, Telstra. The ACCC adopted an approach to setting the initial RAB value that would allow the access provider to recover its previous costs of investing in sunk infrastructure..." (ACCC, 2011)

From the comparison presented in Figure 3, it can be seen that Telstra stands to recover far more in disconnection payments than the regulatory value attributed to the assets that will actually become redundant as a result of the disconnection

of customers. This suggests that Telstra is being compensated for the loss of other kinds of margins – such as existing retail margins.

To the extent that the payments by NBN Co allow Telstra to recover more than its costs of providing the services, and compensate it for lost retail margins, then the ACCC should carefully consider how these additional payments are treated. Following the same line of reasoning as for the treatment of line costs in pricing LSS services, where existing wholesale charges already recover a reasonable share of costs, not taking account of actual NBN Co contributions to costs would lead to an over-recovery of network cost. This, in turn, would lead to an unfair competitive advantage for Telstra in downstream markets, as it would need to recover less revenue in these markets, as compared to access seekers, in order to fully recover the costs of its business. It would also have the effect of allowing Telstra – through a combination of the prices it receives from NBN Co for disconnecting its copper customers, and access and retail prices for use of its network – to effectively be compensated for lost retail margins and market share that it might incur as a result of migration to the NBN.

4.1 Issues caused by network disconnections

The progressive disconnection of customers on Telstra's fixed network will have the following effects:

- It will reduce the number of services in operation or lines
- It will reduce the ongoing opex and capex costs
- It will represent a recovery of (lost) depreciation.

The FLSM needs to make adjustments to ensure that these factors do not lead to cost over-recovery by Telstra.

Our analysis in the following sections suggests that the FLSM seems to make an appropriate adjustment to address the first issue; however, the latter two factors will also require adjustments to be made to ensure that the payments provide for cost recovery and no more.

4.1.1 Reducing lines

The FLSM uses the number of lines in two ways. The first way is to allocate costs between Telstra's wholesale and retail services, and the declared fixed line services. The second way is by dividing the allocated costs by the number of lines to produce a per unit price.

Our understanding of the FLSM is that cost allocation factors for services such as the ULLS were based on relative usage assumptions from the Analysys Mason fixed network model and demand data. This, for example, produced a cost allocation factor for ULLS of $\frac{c_i}{c}$, based on $\frac{c_i}{c}$ of

Telstra's lines being ULLS. In the FLSM, this allocation factor is forecast forward based on forecasts for the growth in ULLS services. Notably, this allocation factor remains as a proportion of total lines, meaning that falls in the total number of lines due to network disconnections that affect Telstra's lines and ULLS lines equally will result in a fall in the allocated cost to ULLS lines.

As an example, suppose that there was an expected decline in total lines by 20 per cent over the coming regulatory period. Assuming an even spread of decline between Telstra and access seekers, this would likely be reflected in a fall in the ULLS cost allocation factor by 20 per cent, meaning that there will be a reduction in the cost allocated to these services and no increase in the unit costs merely as a result of this effect. This is shown in the following table.

Table 2 Illustrative impact of existing FLSM approach to falls in demand for the declared services

	Original	Post Agreements
Total lines	1000	800
Regulatory asset base	10,000	10,000
Telstra lines	900	720
Access seeker lines	100	80
Cost allocation to access seeker lines	0.1	= (80/100) * 0.1 = 0.08
Per unit cost allocated to access seekers (=allocated cost / lines)	10	10

Source: Frontier Economics

4.1.2 Lower operating and new capital expenditures

As noted in Section 2.1.5 above, Telstra expects to save costs from not having to supply services in those areas where its network has been disconnected – the avoidable costs of the relevant assets.

The FLSM is a model of costs, so the immediate impact of the disconnections will be to reduce costs. This leads us to the clear principle that there should be some account taken of the change in costs in future forecasts used in the FLSM. To do otherwise would almost certainly result in cost over-recovery.

4.1.3 Further adjusting the RAB

As noted earlier in section 4, it seems reasonable that the disconnection payments made by NBN Co should compensate Telstra for the lost value of its assets. This lost value is essentially the opportunity cost of the assets – continuing to supply a combination of the declared fixed line services and retail and wholesale services.

We note that the ACCC has previously argued that:

The ACCC expects that payments under the proposed deal between Telstra and NBN Co will compensate Telstra for unrecovered depreciation on assets no longer used to provide the declared fixed line services following the roll-out of the NBN.³⁰

The issue that we have identified in section 2 is that there is a material probability that the size of the payments from NBN Co to Telstra will exceed the value of the RAB associated with assets disconnected.

Our view is that the choice between making a further adjustment for the size of the payment requires the ACCC to balance various criteria:

- The objective of preventing cost over-recovery favours using actual payments received by Telstra, and deducting these from the RAB.
- Doing nothing, and allowing the cost allocation approach to keep line costs steady would be consistent with maintaining price stability and the migration to the NBN over time.

Our view is that the first of these approaches is preferable and more consistent with the legislative criteria. **The alternative approach of ignoring the payments will facilitate Telstra's over-recovery of costs and potentially mean end users pay higher prices for voice and broadband services than they need to.**

We consider it reasonable to assume that there is a strong likelihood that access seekers will pass through some, and potentially all, of the lower copper access prices in the form of lower retail prices or better retail services such as higher data quotas for end-users. This reflects the levels of competition pressure that exists in retail markets for voice and broadband services which are delivered using a combination of ULLS, or WLR and LSS inputs. Therefore, denying access seekers the lower prices is also depriving consumers of these lower prices and better services.

The opposite approach, to not take into account the payments on the basis that this will enhance price stability and NBN migration, essentially amounts to a 'copper tax' on consumers.³¹ Further, keeping copper prices high will mean Telstra derives a specific benefit over access seekers in the transition to the NBN.

To the extent that taking into account the payments results in a fall in access prices, then consumers should be entitled to this reduction even if it later means that they will face a steeper price hurdle when they move to NBN services – remembering that as the copper network is switched, consumers will have little option but to take services from NBN Co in any event.

³⁰ ACCC discussion paper, p. 4, April 2011

³¹ This line of argument has also been considered in New Zealand, as there is a co-incident review of fixed network prices charged by Chorus, and a process of rolling out a next generation access network.

5 Infrastructure rental payments

5.1 The issue with rental payments relates to cost allocation

The currently-drafted agreements between Telstra and NBN Co provide for access to ducts, exchanges and dark fibre. These services are likely to use assets in the following FLSM asset classes, described in Section 1:

- Ducts and pipes
- Inter-exchange cables
- Transmission equipment
- Network land
- Network buildings.

While there is again an issue with potential for cost over-recovery with respect to the rental payments, the issue with the rental payments is different from the issue discussed in the previous section on disconnection payments. The concern here is that Telstra may recover a share of costs from access seekers based on some cost allocation metric (e.g. share of lines), but then changes in asset use (i.e. increased use by NBN Co) allows Telstra to recover more than it would if that shared asset use was taken into account – and more than the efficient costs of supply.

As an example, suppose that duct costs common to the supply of both copper and fibre services are \$100. Suppose further that regulated copper services (ULLS and WLR) are initially allocated \$20 in cost in the FLSM, to be recovered from access seekers. Telstra would then need to recover \$80 from its wholesale and retail services that use ducts to recover its efficient costs. The issue that may arise is if NBN Co pays Telstra *another* \$30 for the use of the *same* assets. This will lead to cost over-recovery³² if that return is not accounted for some way in the FLSM.

While this simple example illustrates the main concern, there are some complicating factors which might prevent or limit any over-recovery:

- Telstra loses some revenues which it was previously earning because the copper and fibre do not co-exist
- there are additional costs of supplying access to NBN Co

³² Assuming that no less than \$100 is already recovered

- the FLSM could adjust to allocate more cost to Telstra's other services, reflecting the higher intensity of usage of its assets.

The first issue is that Telstra may currently be earning more from selling a service (say a retail line) than it will for receiving a payment over the equivalent infrastructure (e.g. ducts and cables) once the copper network has been disconnected. Although that is a possibility, this issue has been addressed via the disconnection payments to Telstra. Further, to draw such a conclusion, one would also need to consider the retail margins that Telstra will be able to earn from its retail customers in future serving them on the NBN platform.

The second issue is already accounted for in our analysis of the current payments, as described in section 2. The value of the payments is well in excess of the incremental costs of supplying access on a forward-looking basis.

The third issue is the subject of the remainder of this Section of the report. Our key finding is that further analysis and revision of the FLSM is likely to be required to ensure that cost allocations accurately reflect usage and therefore offer a reasonable approach to cost recovery.

The key issue here is that the two major assets that appear to be the subject of the payments – ducts and exchange costs – are not allocated to the declared fixed line services on the basis of their most obvious cost driver (distance and exchange space, respectively). Rather, they are allocated on the basis of lines and call minutes.

As NBN Co's use of assets make no difference to lines or call minutes, this could mean that there is no additional cost allocated to Telstra's supply even though it is using the assets more intensively than it was previously.

To properly account for these issues, it may require the ACCC to become more specific about the treatment of the payments and distinguishing the services which NBN Co acquires in the FLSM.

5.1.1 Does it matter whether the services are declared?

We anticipate that Telstra may argue that the purpose of the FLSM is not to fully allocate costs and regulate returns across all of its services. The proper role of regulation is to define the scope of market power, and, where necessary, to regulate the price of those services where market power would otherwise promote prices that are not in the long-term interests of end-users.

Our response to this is as follows. While the scope of regulation is limited, the jointness of costs incurred in supplying the declared fixed line services and other (non-declared) services means that we cannot ignore that Telstra is receiving additional revenue for services provided using the shared assets. The relevant principle that access seekers should pay a reasonable share of common costs, preferably based on some measure of relative usage of the assets. Following this

principle implies that Telstra should bear a greater share of common costs, reflecting its increasing intensity of use of the asset.

5.1.2 How does cost allocation in the FLSM need to change?

In the FLSM, costs are allocated to services using the following allocation methods:

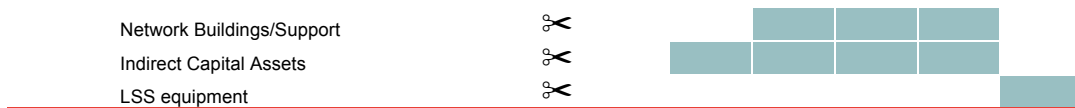
- Assets used by WLR, ULLS, Wholesale ADSL services – share of lines
- Assets used by LCS, PSTN OA – share of minutes of use
- LSS – incremental costs entirely allocated to access seekers

In some circumstances, there are other allocation factors used which reflect a lack of availability of usage data – for example for network land and buildings. Generally, such allocations mirror existing allocations to services from similar asset types (known as a ‘revenue share’ method).³³ The result of the allocation of assets to services results in the following allocation of costs to services.

Table 3: Asset categories in the FLSM

Network	Asset class	% of Regulatory Asset value 2012/13	ULLS	WLR	LCS	PSTN OA	WADSL	LSS
CAN	Ducts and pipes	✂						
	Copper cables	✂						
	Other cables	✂						
	Pair gain systems	✂						
	CAN Radio Bearer Equipment	✂						
	Other CAN assets	✂						
	Other Communications Plant and Equipment	✂						
	Network Land	✂						
	Network Buildings/Support	✂						
	Indirect Capital Assets	✂						
CORE	Switching Equipment - Local	✂						
	Switching Equipment - Trunk	✂						
	Switching Equipment - Other	✂						
	Inter-exchange Cables	✂						
	Transmission Equipment	✂						
	Core Radio Bearer Equipment	✂						
	Other Communications Plant and Equipment	✂						
	Network Land	✂						

³³ ACCC, FAD June 2011, p. 97: “The revenue share approach determines cost allocation factors for these assets based on the average allocation to the relevant service for assets where costs can be attributed more directly.”



Source: ACCC FLSM

As we have discussed, it is notable that the usage factors used in the FLSM will not be (at all) relevant to NBN Co's rental of infrastructure, because our understanding is that:

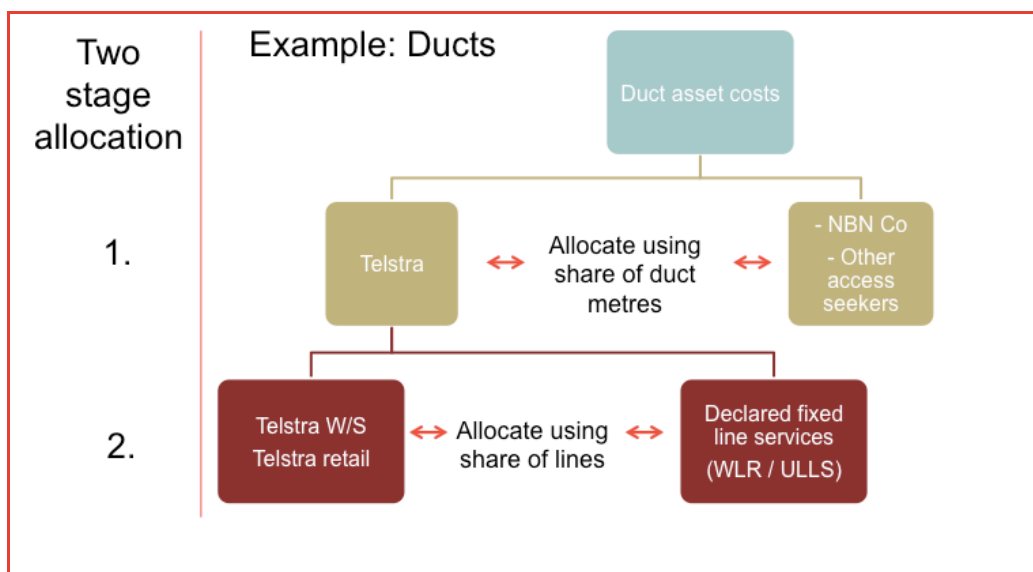
- buildings and exchange space are usually sold on a per rack basis
- ducts and pipes are sold on a per metre basis
- dark fibre is sold on a per metre basis

An approach to cost allocation that respected the principle of costs being allocated in accordance with usage of assets implies the following changes to the FLSM are required:

- Allocate costs first to ducts on the basis of metres used
- Allocate exchange building and land costs to services on basis of metres of exchange space used
- Allocate costs to dark fibre

This preferred approach is outlined in the following example relating to ducts. In this case, we consider that a two stage allocation of costs is required, with a first stage allocating costs between users of duct access services, including NBN Co, and then an allocation between Telstra's use of the duct assets and the use by the declared fixed line services. Such an approach would significantly increase the transparency of the allocation of costs and ensure that NBN Co's increased use of assets also used to supply the declared fixed line services is properly accounted for.

Figure 7: Example of revised cost allocation approach required



Source: Frontier Economics

Similar analyses are likely to be necessary for dark fibre and for network land and buildings.

Although we expect that the data to undertake such allocations may not be readily available, it would be within the ACCC's powers to seek such information from Telstra, and to collect it on a sampling basis if necessary to derive estimates. In some instances, such sampling might also be useful to collect information on geographic cost relativities where those are important – e.g. for network land and buildings where the cost of land varies significantly by geography.

5.1.3 An alternative approach could be to ensure that any gains are shared with consumers

An alternative approach, as suggested in box 2, would be to reduce the regulated revenues able to be earned by Telstra in some proportion to the additional revenues that can be earned from NBN Co.

Although this approach is ultimately likely to prove inferior to a revised cost allocation approach, it is possible that this approach could prove significantly simpler for the ACCC to implement. At the least, it would ensure that consumers can derive some benefit from the increased sharing as well as Telstra.

In contrast to fully revising the cost allocations, the ACCC could rely on data relating to the increase in revenue earned by Telstra, and determining a reasonable share of this to share with consumers by lowering regulated revenues.

6 The Government's proposed adjustments to the NBN

Ultimately, the analysis of the existing agreements and the effect on the existing declared services is of limited utility because the Coalition's proposed amendments to the NBN will ultimately (a) change the form of the NBN and (b) require revisions to the existing Telstra and NBN Co agreements. In this short section, we note some of the proposed adjustments and the possible implications, noting this uncertainty.

6.1 Outline of proposed adjustments

The Coalition entered the previous election with a commitment to review and revise the existing NBN policy, with a view to reducing its costs.

The outcome of the 'Strategic Review', released publicly in early December 2013, provides recommendations that will significantly change the previous network rollout plans. These earlier plans involved a very high proportion of FTTH technology. The new Strategic Review approach favours a mix of existing and new technologies, including making use of a fibre-to-the-node network (using existing copper) and HFC networks.

The proposed changes will undoubtedly require major revisions to the existing NBN Co – Telstra agreements – not the least to reflect the acquisition or rental of copper cables from Telstra, as well as possibly access to Telstra's HFC network. In addition, there are other uncertainties about the proposed new model. For example, if greater use of FTTN is made, will this network coexist with the existing PSTN, as in the UK, or will it strand existing investments made at local exchange? Will there be material changes to the current distribution of points of interconnection across Australia?

6.2 Possible implications

Although as noted a comprehensive analysis is impossible given currently publically-available information, we might expect that the new agreements would have some or all of the following effects:

- Relative to a FTTP network, FTTN will mean a reduction in proposed payments to Telstra for duct access, and to acquire lead in conduits.
- On the other hand, greater use of FTTN will mean an *increase* in payments for copper lines between nodes / houses, and these payments will more than cover the lost payments from duct access and lead ins.

- The net effect is a likely *increase* in Telstra payments, particularly when we consider that, as illustrated in section 2, we have two parties seeking to bargain where one has much greater patience than the other in seeking a commercially-attractive deal. The Government is highly reliant on Telstra to deliver its proposed NBN, and faces a much greater ‘loss of face’ if it is not delivered than does Telstra, which faces likely falls in profits from the NBN.

We further observe that although the quantum of payments is likely to change as a result of a renegotiation, the declared position of the Government and Telstra is that Telstra will be made no worse off by the proposed changes to the deal. The existing deal therefore provides only a *lower bound* on the extent of the current issue.

Ultimately, the speculation around the changes in payments emphasises the importance of the ACCC having a clear set of principles to deal with the new revenues that are earned. Principles of the kind we have described in this report appear robust to the proposed changes, and we consider that there would be value in the ACCC adopting a clear set of principles, and possibly consulting on those principles, when reconsidering the pricing proposals at the expiry of the current FAD in June 2014.

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