



Assessment of Telstra's revised forecasts

A REPORT PREPARED FOR THE COMPETITIVE CARRIERS COALITION

December 2014

[X] indicates removal of commercial-in-confidence material

Assessment of Telstra's revised forecasts

Summary	iii
1 Introduction	1
1.1 Forecasts in the FLSM	1
1.2 This report	2
2 Overview of the forecasts	2
2.1 NBN rollout assumptions	3
2.2 Demand forecasts	3
2.3 Capex forecasts	4
2.4 Opex forecasts	6
3 The overall impact of these forecasts on the LTIE	7

Assessment of Telstra's revised forecasts

Figures

Figure 1: Changing shares of SIOs, forecast	4
Figure 2: Capex forecasts	4
Figure 3: SIOs and data usage forecasts	5
Figure 4: The impact of the NBN on capex per SIO	5
Figure 5: A comparison between forecast SIO declines and costs allocated to the fixed network	5
Figure 6: Opex, by asset class	7
Figure 7: Effect on the NBN on opex	7

Summary

Frontier Economics (Frontier) has been asked by the Competitive Carriers Coalition (CCC) to provide an assessment of Telstra's revised forecasts that were attached to its October 2014 submissions to the Australian Competition and Consumer Commission's (ACCC's) review of fixed line services pricing.

Telstra's submission to the ACCC contains a number of revisions to its earlier-submitted demand and cost forecasts. These revisions include a more explicit methodology dealing with the NBN rollout, and a spreadsheet model which offers certain flexibility to the user to consider different NBN rollout assumptions. This approach is an improvement on the previous forecasting methods.

Our overall assessment of the forecasts is that Telstra's forecasts will not produce reasonable cost and price outcomes. This is for two main reasons:

- The first reason is that much of Telstra's capital expenditure (capex) in future periods will be driven by NBN Co requirements, which are proposed to be recovered from all users of the network rather than NBN Co directly. This is contrary to economic efficiency. It is NBN Co that causes the cost to be incurred, and the expenditure offers no incremental benefit to existing fixed network users.
- The second reason is that Telstra's forecasts are developed on the basis that it should be compensated by access seekers for a loss of economies of scale caused by the NBN. It seeks this compensation even though it has reached a deal (and will soon reach a revised deal) to migrate its customers to the NBN and for NBN Co to re-use its assets for significant financial compensation.

Allowing Telstra to recover NBN-related capex and higher unit costs from access seekers – and ultimately end users – means there would be a significant prospect that Telstra would recover the costs of supplying services more than once.

In our view, the ACCC should make two adjustments to Telstra's forecasts to ensure that they will lead to prices for the declared fixed line services which promote the LTIE:

- Remove all capex that is incremental to NBN Co's demand for fixed line assets.
- Ensure that the forecasts of costs are consistent with the NBN migration causing no loss of economies of scale (no increase in unit costs due to the NBN).

1 Introduction

1.1 Forecasts in the FLSM

The Australian Competition and Consumer Commission (ACCC) has previously declared a number of services that are used by access seekers to provide fixed-line telecommunications services. These include the:

- unconditioned local loop service (ULLS)
- line sharing service (LSS)
- fixed originating access service (FOAS)—previously the PSTN originating service (PSTN OA)
- fixed terminating access service (FTAS)—previously the PSTN terminating service (PSTN OA)
- wholesale line rental (WLR) service
- local carriage service (LCS)
- wholesale service (Wholesale ADSL or WADSL).

Collectively, these are referred to as the “fixed line services”.

Under section 152BC of the *Competition and Consumer Act 2010*, the ACCC is able to make a determination relating to access to a declared service. The ACCC has previously issued determinations that set out the price terms and conditions upon which the fixed line services should be provided.

The ACCC’s fixed line services model (FLSM) is a building block model which relies on the use of forecasts to produce service costs and prices. This includes:

- **Demand forecasts:** These are used to both allocate costs between different services, and to unitise the revenue requirement (by service)¹
- **Capital expenditure (Capex) forecasts:** Capex forecasts feed into the regulatory asset base (RAB), on which a return is earned (WACC * RAB), and on which depreciation is calculated
- **Operating expenditure (Opex) forecasts:** Opex forecasts feed directly into the opex building block, and are recovered each year as forecast.

In an earlier submission, we analysed Telstra’s initial forecasts.² These forecasts were produced in response to the ACCC’s record-keeping rule requirements

¹ We also note that the impact of demand forecasts is much more significant under any approach to cost allocation which takes into account changes in the total demand for fixed network services (as has been proposed by Telstra). Under the ACCC’s current approach, it is only the changes in declared service usage that change the cost allocation factors.

(November 2013), and then later revised in July 2014 and provided in conjunction with a new cost allocation framework.

In particular, our earlier submission responded to the following questions and issues raised by the ACCC:

- whether Telstra's BBM RKR capital expenditure forecasts for the period 2014–15 to 2018–19 represented only prudent and efficient investment and whether there is sufficient detail to properly assess the forecasts?
- whether Telstra's 2013–14 forecasts represented a reasonable baseline for the BBM RKR operating expenditure forecasts, and what scope existed for further efficiency gains given Telstra's views on productivity and trends for network faults?

1.2 This report

Telstra's submission to the ACCC's discussion paper³ and confidential annexes contains new forecasts and a new model designed to account for NBN rollout.

The Competitive Carriers' Coalition has engaged Frontier Economics to review and provide an expert submission on Telstra's revised forecasts. The purpose of this note is to document our review of Telstra's revised forecasts and models. We have focused on our review on identifying:

- whether the forecasts have been derived transparently
- whether there are methodological or input flaws
- whether the forecasts produce reasonable outputs.

2 Discussion of the forecasts

The impact of the NBN is a major challenge for the forecasts, and Telstra has built a flexible model which relates changes in rollout assumptions to costs and SIOs. This is described first.

² Available at:
<http://www.accc.gov.au/system/files/CCC%20Public%20Submission%20to%20the%20fixed%20services%20FAD%20primary%20price%20terms%20Discussion%20Paper.PDF>

³ Available at:
<http://www.accc.gov.au/system/files/Telstra%20Submission%20to%20the%20fixed%20services%20FAD%20primary%20price%20terms%20Discussion%20Paper%20%28contains%20Appendix%201%29%20-%20Public%20Submission%20Document.PDF>

2.1 NBN rollout assumptions

The particular aspects of the NBN rollout scenario that is presented in tab “NBN Co Rollout Scenario” were determined by Telstra based on the NBN Co Strategic Review. This will need to be updated as further information (such as that released on 15 December 2014 relating to the finalisation of the NBN Co – Telstra agreements) comes to hand.

The key NBN rollout assumptions made by Telstra are that:

- There is a mix of technologies, including FTTN, FTTB, FTTP and HFC networks
- Over 11 million premises will be passed, and the rollout will be 78% complete by 2019
- There will be a significant share of HFC users, which will be the most used technology and be rolled out fastest

Most of the settings in the NBN Co Rollout Scenario sheet are user adjustable, and feed through to both demand and cost forecasts, which scale with these rollout assumptions in various ways. These impacts are discussed further below.

2.2 Demand forecasts

Telstra’s demand forecasts are split into a ‘Pre NBN’ base case forecast, and an NBN adjusted forecast.

These forecasts are provided for a broader range of services than Telstra’s earlier forecasts, reflecting its commitment to its ‘fully allocated’ methodology which requires accounting for all uses of the assets used to supply fixed line services. We note that at this stage the ACCC has made no decision to accept this methodology. As we have noted in our submission of December 2014⁴, if the ACCC is minded to adopt Telstra’s proposed cost allocation methodology, then we are of the view that the ACCC should be consistent and take account of the impact of the change in method on the 2011 RAB increase.

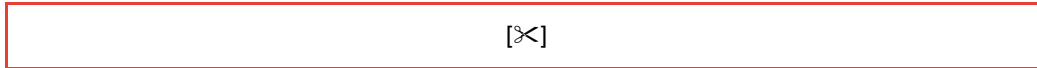
In relation to the ‘base case’ forecasts:

- The base case forecasts remain hard coded and so the exact derivation of the forecasts is not transparent. Telstra does, however, provide further detail as to how these are derived compared to Telstra’s earlier submissions.
- Telstra’s base forecasts continue to imply that access seekers’ share of total SIOs will increase over the forecast period. Under Telstra’s proposed cost

⁴ Frontier Economics, *Cost allocation methodology and its relationship to the opening regulatory asset base*, December 2014.

allocation methodology, this will result in an increase in costs allocated to these services, whereas under the ACCC methodology it will not.

Figure 1: Changing shares of SIOs, forecast



Source: Frontier based on Telstra forecasts

Our understanding is that the NBN adjusted forecast makes the following adjustments:

- Declines in SIOs are linked to the NBN rollout assumptions for brownfield migration
- Declines in MOU are linked to the post-NBN SIO assumptions, creating an indirect link between the MOU and the NBN rollout assumptions for brownfield migration.

2.3 Capex forecasts

Figure 2 shows that Telstra's initial capex forecasts split capex into several different categories. The most important category is 'demand and baseline', although NBN-related capital expenditure is also significant in relation to the CAN (e.g. duct remediation).

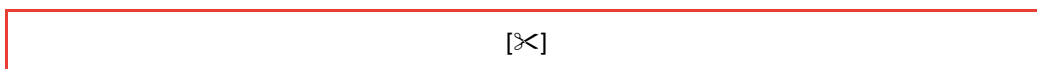
Telstra's revised forecasts for demand-related capex are largely based on historic trends and the NBN roll-out (i.e. a reduction in costs). This seems an appropriate method.

For NBN-related expenditure, the forecasts have a key assumption that Capex per premise passed is [Redacted]. Telstra states about this capital expenditure:

[Redacted]⁵

The total capex figure then largely declines by the proportion of the completed rollout. In combination, the forecasts appear as follows.

Figure 2: Capex forecasts



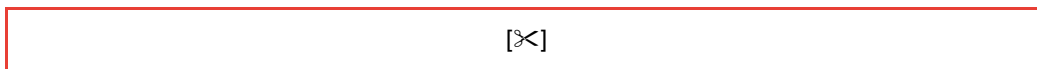
Source: Frontier based on Telstra forecasts

There are two notable features from these forecasts:

⁵ Telstra, Appendix 4, p. 61.

- a. Telstra's aggregate capex spending on the CAN is kept high by NBN demands. In particular, by spending on the Ducts and Pipes asset class.
- b. Spending on the core network is driven by spending on data equipment, which is forecast to rise and then decline as the 'NBN impact' (falling SIOs for wholesale and retail ADSL users) outweighs the impact of higher data usage per customer. This is shown in Figure 3.

Figure 3: SIOs and data usage forecasts

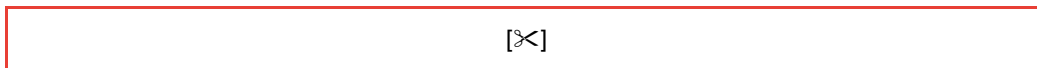


Source: Frontier based on Telstra forecasts

To understand how the forecasts are likely to affect prices for the declared fixed network services, we first highlight how the forecasts change on a 'per SIO' basis, and then consider to what extent this is addressed by an increasing share of usage by other networks (and in particular NBN Co).

On a per SIO basis, the capex forecasts show a flat trend on a 'pre NBN' basis, but an increasing trend caused by the NBN migration (that is, by reductions in SIOs using Telstra's network). This is shown below.

Figure 4: The impact of the NBN on capex per SIO



Source: Frontier based on Telstra forecasts

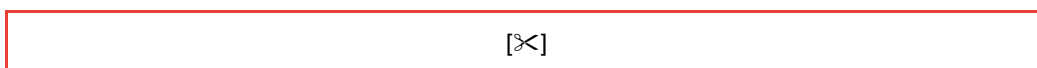
Note: Uses total SIOs

To some extent, this increase in 'per SIO' costs will be offset by an increase in cost allocation away from fixed line services (which are obviously not measured 'per SIO'). However, from Telstra's migration and demand assumptions, it appear that the increases in cost allocated to NBN Co and other users will not wholly offset the trend above.

As an example, the following figure shows that:

- [X]

Figure 5: A comparison between forecast SIO declines and costs allocated to the fixed network



Source: Frontier based on Telstra forecasts

The [X] decline in the fixed line share of costs falls well short of the [X] decline in SIOs over the period. The fall in costs allocated to fixed lines will not

entirely offset the higher per SIO capex. This appears to be the key factor leading to Telstra's push for a 7.2% price rise.

2.4 Opex forecasts

We have reviewed the methods Telstra has used to prepare its forecasts. The general framework adopted by Telstra in revising its forecasts is the 'base-step-trend' framework. We agree with Telstra that this is the framework adopted in many other regulated industries for forecasting operating expenditure, and is a reasonable approach.

Telstra provides reasonable transparency of its base expenditure and estimates of future trends in Appendix 4 to its submission, although we note that Telstra has not produced material suggesting that the base level of costs is efficient. While Telstra has noted that the AER often starts with a base year expenditure based on actual costs, the AER also says:

If we identify material inefficiencies in actual base year expenditure we will not use it as base opex.⁶

We provide no further specific comment on these at this stage (i.e. we do not comment on whether the base level is efficient) but note that this cannot be assumed.⁷

There are two features of Telstra's actual forecasts which are pertinent:

- there are significant falls in opex compared to the previous regulatory period, although this may not reflect actual falls in costs (rather they reflect a different method of measuring relevant costs).
- The forecasts vary with changing SIOs reflecting the NBN migration. This reflects a change from Telstra's earlier forecasts.

Telstra's Opex forecasts are summarised in the following figure, which show that:

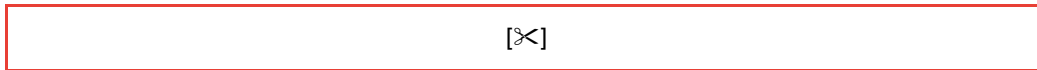
- CAN opex falls to 2019, while Core opex rises.
- The primary source of the fall is the reduction in expenditure on copper cables.
- The core opex rises due to increases in the costs of Network buildings / support. The increasing trend is primarily due to:
 - Electricity – which has had some reductions due to the NBN impact – but is overall increasing year on year, and

⁶ AER Guideline, *Explanatory Statement Expenditure Forecast Assessment Guideline*, November 2013, p. 62

⁷ See Section 2.4.3 of our initial submission, *Submission on the final access determinations for fixed line services*, October 2014.

- Rent – which is escalated at [X] each year.
- Indirect opex falls.

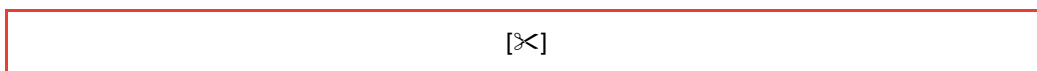
Figure 6: Opex, by asset class



Source: Frontier analysis of Telstra data

As with the capex data, the NBN forecasts have a significant impact on these costs. This is illustrated below.

Figure 7: Effect on the NBN on opex



Source: Frontier analysis of Telstra data

Note: Uses total SIOs

Again we note that the moderate increase under the 'pre NBN' scenario changes to a significant increase in cost per remaining SIO, which is offset to some degree by the increase in cost allocated to non-fixed line services.

3 The overall impact of these forecasts on the LTIE

The *Competition and Consumer Act 2010* requires the ACCC to consider certain factors when making an FAD, including the long-term interests of end-users (LTIE), the legitimate business interests of carriers and carriage service providers and the direct costs of providing access to the declared services.

In relation to the LTIE, the CCA requires the ACCC to have regard to encouraging the economically efficient use of, and economically efficient investment in the infrastructure by which listed carriage services are supplied.

On the issue of efficient investment, the Tribunal has stated that:

...An access charge should be one that just allows an access provider to recover the costs of efficient investment in the infrastructure necessary to provide the declared service.⁸

Our discussion of Telstra's forecasts indicates that while Telstra appears to use suitable methodologies for basing and forecasting future cost changes, there are

⁸ Telstra Corporation Ltd (No. 3) [2007] ACompT 3 at [159].

two significant deficiencies which mean that the ACCC should not accept them as they are contrary to the LTIE:

- NBN-specific expenditure is allocated to all users of the fixed network assets, rather than recovered from NBN Co directly. This will be detrimental to the efficient use of infrastructure and competition. These higher costs should be recovered from those causing them to be incurred.
- The forecasts result in Telstra (as a retail provider) and access seekers facing higher costs from a loss of economies of scale (caused by fixed costs and declining usage of the network). The reality of the commercial negotiation between NBN Co and Telstra would be highly unlikely to leave Telstra worse off (as is implied by the higher costs for its retail customers) and claims that the NBN payments do not account for this loss are not realistic.

3.1.1 Incremental capital expenditure on the CAN should be recovered from NBN Co

Telstra's forecasts reveal that its overall capex spending on the CAN is kept high by NBN demands. In particular, by its forecast of spending on the Ducts and Pipes asset class - Capex per premise passed is [X].

Under Telstra's proposed approach, this capex would be added to the RAB and recovered across all users of the fixed network. How these costs are recovered across users is determined by the cost allocation factors used in the model.

Telstra explains this approach as follows:

"...Telstra will be required to incur additional capital and operational expenditure than would otherwise be the case to facilitate NBN Co's use of shared network assets...The increase in capital expenditure due to the remediation of assets will necessarily increase the revenue requirement compared to the case if this expenditure was not incurred. However, this expenditure is necessary for NBN Co's use of these assets, which in turn impacts on the allocation of costs with respect to these assets among different users of the network."⁹

Telstra identifies here that the capex expenditure is incremental to NBN Co's access: the expenditure would not be required if NBN Co did not seek access.

In our opinion, it would be inappropriate for any user other than NBN Co to be charged for capex that is clearly incremental to NBN Co's usage of the network. This would be consistent with standard economic principles of cost recovery. Expenditure that is incremental expenditure does not need to be allocated among different uses or users. It could and should be entirely excluded from the FLSM.

This approach would be entirely consistent with the view of the Tribunal that access charges should allow recovery of costs necessary to provide the declared

⁹ Telstra, 3 October Submission, p. 38.

service. Telstra's own submissions say that these expenditures would not be required to provide the declared services if NBN Co did not seek access.

It would be more appropriate to view this capex as analogous to a connection charge¹⁰. Connection charges for access, for e.g. ULLS, are maintained outside of the FLSM. We understand the primary reason for this is that connection charges are entirely incremental expenditure that is attributable to one user. It is therefore inappropriate that these charges be recovered across all users of the network – much as it is inappropriate that access seekers and end users pay for NBN Co's access to the duct network in prices for *existing* copper-based services.

We note that this is a separate issue from the usage assumptions which drive cost allocation between the fixed line services and other uses under Telstra's proposed cost allocation. That is, as NBN Co uses more of Telstra's assets, it should be allocated a greater share of (duct and pipe) cost. However, this would and should occur even if Telstra did not spend a single dollar in remediating ducts and pipes.

As a final point, we note that Telstra's submission says that “payments under the (DA) are not related to the continued supply of fixed services, maintenance of the fixed network nor do they represent a de facto valuation of the CAN”.¹¹

This appears to suggest that Telstra must be planning to recover the incremental capex it needs to spend to provide NBN Co with access to the duct and pipe network from users of the copper network (including its own users). In our view, it is untenable to treat the payments this way. It would mean that NBN Co was not effectively paying for the direct and incremental costs of its access to the copper network. It would be irrational for Telstra to give access to NBN Co on that basis.

3.1.2 Telstra is being compensated for a loss of economies of scale

Telstra's forecasts invite the ACCC to allow it to be compensated by access seekers for a loss of economies of scale caused by the NBN. Although not a criticism of Telstra's forecasting methodology *per se*, we can see the effect of Telstra's approach through Figure 4 and Figure 7, which imply higher per SIO costs that will not sufficiently offset the increasing allocations of key costs to NBN Co (Figure 5).

Telstra seeks this compensation even though it has reached a deal to migrate its customers to the NBN, and for NBN Co to acquire or re-use its assets for significant financial compensation.

¹⁰ That is, for 'connecting' NBN Co to the duct and pipe network.

¹¹ Telstra, 3 October 2014 submission, p. 44.

We do not consider that, given the size of the agreements¹², it is reasonable to argue that Telstra would have signed an agreement that would have reduced its profits *from supplying its own retail customers* over the fixed network.

We recognise the ACCC has now stated its position that the NBN payments should not be directly accounted for in the FLSM.¹³ However, it is clear that the *transaction* does need to be accounted for in a situation where there is a causal connection between the NBN migration and Telstra's loss of economies of scale. The alternative is that *only* access seekers – and ultimately end users – bear the costs of Telstra's loss of economies of scale.

We consider the relevant economic principle here is that access seekers should pay no more than they would have paid without the NBN arrangements. Access seekers do not directly benefit from the NBN agreements, and equally should not bear their costs.

3.1.3 The ACCC should make adjustments to the forecasts

In our view, the ACCC should make two adjustments to Telstra's forecasts. This will ensure Telstra only recovers the costs of supplying the declared fixed line services once, and will lead to prices for the declared fixed line services which promote the LTIE:

- Remove all capex and opex that is incremental to NBN Co's demand for fixed line assets.
- Ensure that the forecasts of costs are consistent with the NBN migration causing no loss of economies of scale (no increase in unit costs due to the NBN).

¹² We valued the DAs at over \$17 billion in 2013 dollars in our submission to the ACCC on this matter.

¹³ ACCC, *Position statement on the treatment of the Telstra-NBN Co arrangements for regulated pricing*, October 2014.

Frontier Economics Pty Ltd in Australia is a member of the Frontier Economics network, which consists of separate companies based in Australia (Melbourne & Sydney) and Europe (Brussels, Cologne, Dublin, London & Madrid). The companies are independently owned, and legal commitments entered into by any one company do not impose any obligations on other companies in the network. All views expressed in this document are the views of Frontier Economics Pty Ltd.

Disclaimer

None of Frontier Economics Pty Ltd (including the directors and employees) make any representation or warranty as to the accuracy or completeness of this report. Nor shall they have any liability (whether arising from negligence or otherwise) for any representations (express or implied) or information contained in, or for any omissions from, the report or any written or oral communications transmitted in the course of the project.

FRONTIER ECONOMICS | MELBOURNE | SYDNEY

Frontier Economics Pty Ltd 395 Collins Street Melbourne Victoria 3000

Tel: +61 (0)3 9620 4488 Fax: +61 (0)3 9620 4499 www.frontier-economics.com

ACN: 087 553 124 ABN: 13 087 553 124