

Cost allocation methodology and its relationship to the opening regulatory asset base

A FURTHER SUBMISSION TO THE ACCC'S REVIEW OF PRIMARY PRICES

The ACCC is currently considering submissions by Telstra in favour of the use of a 'fully allocated' cost allocation methodology in setting prices for the declared fixed line access services.¹

The fully allocated cost method differs from the ACCC's 'partial allocation' approach that it applied in 2011. A key difference is that Telstra's method allows for changes in total network usage to influence individual service cost allocation factors. In contrast, the ACCC's method changes allocation factors in response to changes in declared service demand (only).

Our reading of the ACCC's Primary prices discussion paper is that it correctly recognises that Telstra's proposal will have the effect of shifting demand risk that is currently borne by Telstra across to access seekers and, ultimately, end users.

On the other hand, the ACCC has not recognised that its cost allocation methodology was critical the setting of the opening RAB in 2011, and, in particular, the increase in RAB by \$911 million to create a \$16² 'tie point' between old and new ULLS prices. We consider this is an important consideration to any decision to now change cost allocation methods (and, if so, how it should be done).

This point was briefly addressed in Frontier's *Submission on the final access determinations for fixed line services: A report prepared for the Competitive Carriers' Coalition*, dated October 2014.³ In setting out this further submission, we consider the following sequence of questions:

1. Did the ACCC increase the RAB in 2011 to promote price stability, and, in particular, the \$16 ULLS price in Bands 1-3?

Answer: Yes. See Section 1.

¹ The Primary prices discussion paper and submissions are available at: <http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/consultation-on-primary-prices>

² Per customer, per month

³ See pp. 34-35.

2. Was this increase in the RAB only required because of the approach to cost allocation methodology adopted in 2011?

Answer: Yes. See Section 2. It is not possible to separate out the decision to increase the RAB from the cost allocation methodology used to derive the *initial* ULLS price of below \$16, which was then used as justification for *increasing* the RAB.

3. Would the increase in the RAB had been necessary if Telstra's proposed approach had been adopted initially?

Answer: No. See Section 3. A fully allocated cost approach, if adopted in 2011, would have been consistent with a \$16 ULLS price in Bands 1-3 without the \$911 million RAB uplift.

4. Would adopting Telstra's methodology without offsetting adjustments to the RAB create a windfall gain for Telstra?

Answer: Yes. See Section 4. The change in cost allocation methodology will allow Telstra to capture the full value of the \$911 million RAB uplift *even though this uplift would have been unnecessary had a fully allocated methodology been implemented from 2011*. Such a windfall is not necessary to protect legitimate business interests, and could not be in the LTIE.

We conclude that if the ACCC is minded to adopt Telstra's proposed cost allocation methodology, it should be consistent and take account of the impact of that change on the 2011 RAB increase.

In accordance with current ACCC practice in this review process, we consider there would be considerable benefit in the ACCC advising stakeholders of its preliminary views in relation to the issues number 1-4. In doing so, the ACCC will assist stakeholders in focusing their submissions to areas most in contention.

1. Did the ACCC make adjustments to the RAB to maintain price stability?

The ACCC's process of setting an opening RAB in 2011 was a prolonged and complex process. It spanned two sets of regulatory arrangements, with the introduction of the final access determination (FAD) framework superseding existing 'negotiate / arbitrate' arrangements.

Aside from the change in regulatory arrangements, there were a number of factors which influenced the setting of the initial RAB. These factors were canvassed in detail in:

- the ACCC's draft report on its Review of the 1997 telecommunications access pricing principles ('September 2010 paper'),
- the Discussion paper on the final access determinations for the declared fixed line services ('April 2011 paper') and
- the Final Report on the final access determinations for the declared fixed line services ('July 2011 paper').

The ACCC's initial paper setting out its view on the move towards a building-block model (BBM), with an asset base that would not be subject to periodic re-optimisation, was promulgated in September 2010.

The ACCC proposes to adopt an initial RAB value of \$7.5 billion for CAN assets and \$5.8 billion for Core assets based on a DAC valuation methodology.⁴

The ACCC supported this valuation as follows:

The ACCC considers that a cost based valuation approach that allows the access provider to recover its actual investment costs will best promote the legitimate commercial interests of the access provider. The ACCC has had regard to this criterion when considering the suitability of the various cost based approaches. It has concluded that using a DAC valuation will, on balance, best promote the access provider's legitimate commercial interests since it uses objective, verifiable data on past investments and depreciation.⁵

In relation to cost allocation, the ACCC said that:

The ACCC has used the cost allocation factors from the Analysys Cost Model as a starting point for calculating the cost allocation factors applied in the BBM. It has adjusted these factors to remove, as far as possible, the effects of the optimisation undertaken in the Analysys model and to adjust for changes in the pattern of demand since the Analysys model was developed.⁶

⁴ ACCC, September 2010 paper, p. 24

⁵ Ibid. p. 25.

⁶ Ibid. p. 44.

The ACCC's initial BBM produced ULLS prices of \$16 in band 2 areas, consistent (but coincident) with existing ULLS prices at that time.⁷

The ACCC's April 2011 paper was made under the new regulatory arrangements. Although the ACCC also started with a 'DAC' methodology to value assets for the RAB, there were two key differences from the September 2010 paper:

The first adjustment was to index land values by the consumer price index (CPI) to reflect appreciation of land values over time. The second adjustment was to increase the value assigned to the 'ducts and pipes' asset class by \$1.44 billion. This approach resulted in an initial RAB value of \$17.75 billion as at 1 July 2009, i.e. the first financial year of the FLSM.⁸

The increment to 'ducts and pipes' was designed explicitly to tie the average Band 1-3 ULLS price over the regulatory period to the previous indicative Band 2 price of \$16.

To determine a RAB value consistent with an averaged ULLS Band 1 to 3 price of \$16 the ACCC calculated the net present value of the cash flows expected from the ULLS Band 1 to 3 price and the prices for the other fixed line services estimated by the FLSM as being consistent with the \$16 ULLS Band 1 to 3 price.⁹

This was further highlighted in the July 2011 paper, where the initial \$1.44 billion increment was reduced to \$911 million as a result of other changes to the RAB following from consultation (such as indexation of land values):

...the ACCC has reduced the 'ducts and pipes' increment (as at 1 July 2009) from \$1.44 billion to \$911 million to maintain the \$16 'tie point' for the ULLS price in moving to the building block approach.¹⁰

In its final report, the ACCC noted that it:

...calculated a value within the suitable range of RAB values set by the DAC and DORC values for Telstra's network assets. In calculating an appropriate value within this range, the ACCC used the DAC value as a starting point because the more substantial limitations associated with estimating a DORC value meant that it was not considered an appropriate starting point.

The ACCC confirms its decision to make two adjustments to the starting point DAC value. First, it has accepted that the value of land assets should be indexed by the CPI to reflect the appreciation of land values over time. Second, the ACCC has increased the value assigned to the 'ducts and pipes' asset class above its value in Telstra's RAF accounts. The ACCC confirms its view that this second adjustment is

⁷ Ibid. p. 55. On page 102 the ACCC further notes that there was price smoothing over the four year model period to provide for "uniform prices to give price certainty and stability".

⁸ ACCC, April 2011 paper, p. 3

⁹ Ibid. p. 47.

¹⁰ ACCC, July 2011 paper, p. 37

warranted to provide sufficient pricing stability to support past investments and promote industry confidence in making future investment decisions.¹¹

In total, the \$911 million RAB adjustment increased the revenue requirement on access services by \$69 million over the regulatory period (\$62 million in real terms). This equated to around 80 cents per month per ULLS line, and 98c per month per WLR line. This is illustrated in Table 1, which has been derived from the FLSM by removing the RAB adjustment.

Table 1: Impact of \$911 million 'ducts and pipes' adjustment on nominal service prices over the 2011-14 period

	ULLS Band 1 to 3 average \$/ month	ULLS Band 4 \$/ month	WLR \$/ month	PSTN OTA ¢/ minute	LCS ¢/ call
Average over 3 year FAD period - with adjustment	16.21	48.19	22.84	0.95	8.90
Average - without RAB adjustment	15.41	45.56	21.86	0.95	8.90
Difference	0.80	2.63	0.98	-	-
% difference	5.2%	5.8%	4.5%	0.0%	0.0%

Source: FLSM

2. Was this adjustment caused by the initial cost allocation factors determined by the ACCC?

It is apparent from the descriptions above that the value of the RAB once the land values had been indexed was not sufficient to give an average Band 1-3 ULLS price of \$16.

For this price comparison to be made, the ACCC used its initial cost allocation factors. As noted above, these were based on initial Analysys-Mason factors and adjusted where necessary to reflect changes in demand for the declared services (but not changes in the demand for fixed network services more broadly).

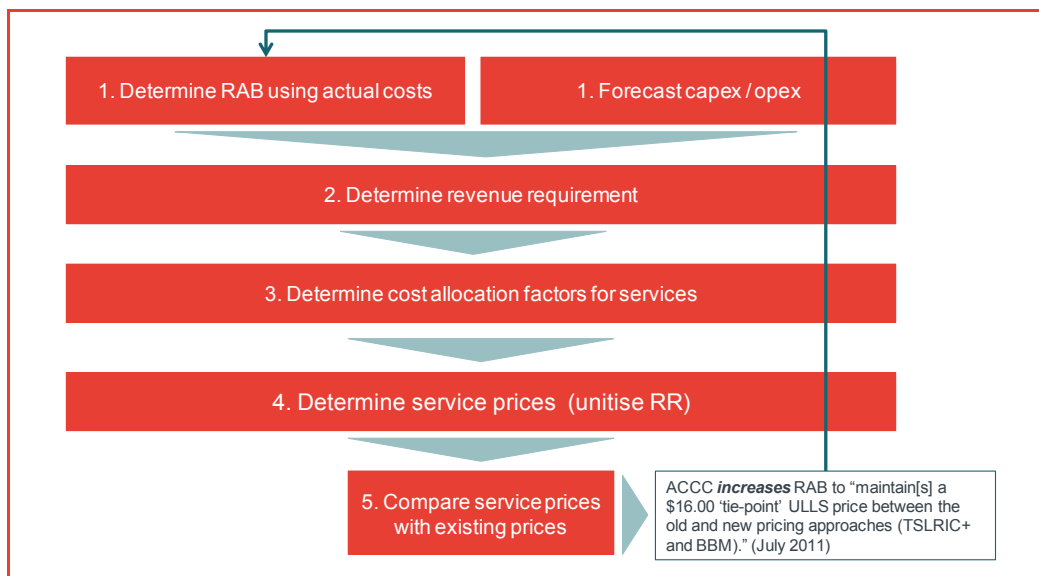
In other words:

¹¹ Ibid. p. 43

- The initial RAB and initial cost allocation factors used by the ACCC in July 2011 were not sufficient to give an average ULLS price for Bands 1-3 of \$16 in the transitional regulatory period.
- Adjustments to the RAB were made to increase the calculated average prices of the ULLS in Bands 1-3 to \$16 (which has the ongoing effect of increasing the final nominal price to \$16.21 for the period 2011-14).

This process of adjustment is highlighted in the following diagram, which shows our understanding of the ‘feedback’ mechanism used by the ACCC to derive its ‘net present value’ valuation for the opening RAB.

Figure 1: Process of setting the initial RAB



Source: Frontier Economics

We therefore conclude that it is not possible to separate out the decision to increase the RAB from the cost allocation methodology used to derive the *initial* ULLS price (of below \$16) which was then used as justification for *increasing* the RAB (to increase the ULLS price up to \$16).

To determine how material the impact of a different cost allocation method would have been, we need to consider a reasonable alternative. The most obvious alternative was a method that took into account changes in the total demand for fixed line services. This is the method (a fully allocated method) which Telstra now recommends that the ACCC should introduce.

3. Would the RAB increase have been necessary if a fully allocated cost approach had been used initially?

As we have observed above, the ACCC made a number of specific adjustments to its initial Analysys Mason cost allocation factors to use them in the FLSM. These were described in the ACCC's July 2011 paper. The two key adjustments were to:

- (a) update the demand for the declared fixed line services
- (b) hold total demand for fixed line services at:
 - the 2002/3 levels for calls
 - the 2009/10 levels for services in operation (SIOs).¹²

This decision had important implications for the costs allocated to the declared fixed line services.

In relation to calls, fixing the call volumes at 2002/3 levels meant that the costs allocated to the declared services (LCS, PSTN OA) were significantly lower than they would have been had current demand figures (for 2011) been used. Further, this approach meant that there would be no change in costs allocated to call services as a result of overall changes in call volumes.

In relation to SIOs, the impact of fixing the SIO levels was that there would be no increase in unit costs of declared services caused by reductions in total demand over the regulatory period.

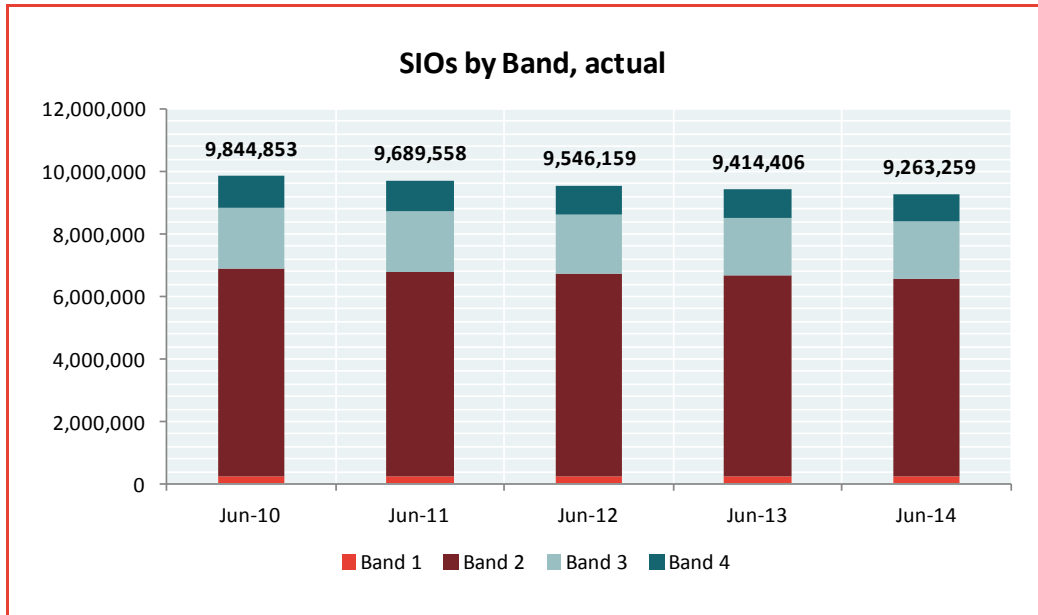
In other words, **the cost allocation factors used to set the RAB in 2011 were lower than they would have been** had a fully allocated cost approach using up-to-date demand data and *forecasts* of future demand been used.

This analysis raises the question of whether the ACCC's RAB adjustment would have been necessary if it had used different cost allocation factors from those chosen – in particular, cost allocation factors more consistent with a fully allocated approach as now put forward by Telstra.

To understand the impact of the use of different cost allocation factors, we have examined the FLSM and made adjustments reflecting what might have been reasonable expectations of cost allocation factors for the period 2011-14. We have assumed that these expectations were consistent with the actual data, based on the ACCC's CAN snapshot information. This seems reasonable given that these data date back to September 2007 and the decline in total SIOs was already evident at that time. This information is summarised below.

¹² Available on the [ACCC website](#).

Figure 2: Actual changes in SIOs, 2011-2014



Source: ACCC CAN snapshots, June of various years

If we use these data to allocate costs for the 2011-14 period rather than fixing the 2009-10 figures¹³, we find that there would have been significant increases in regulated prices.¹⁴

Table 2 below indicates that for both ULLS and WLR services, an approach which accounted for changes in cost allocation over time would have accounted for nearly all of the additional revenue earned through the RAB adjustment. This implies that **the ACCC could have set a \$16 ULLS price that would have been consistent with a lower initial RAB value** (i.e. without the \$911 million increase).

¹³ We do this by changing the denominators in the average Annual Revenue Requirement by year for the ‘ducts and pipes’ and ‘copper cables’ assets classes, on the sheet ‘D. Geo Cost based pricing’ of the FLSM. The denominator in all years was previously the 2009-10 figures.

¹⁴ Note that given the partial nature of the ACCC’s methodology, it would clearly have been feasible to use forecasts of SIOs while fixing the call volumes at their 2002/03 levels.

Table 2: Difference in ULLS prices with different cost allocation assumptions and RAB adjustments

	ULLS Band 1 to 3 average \$/ month	
	Actual FLSM calculation	FLSM with no RAB adjustment, cost allocation adjustment
2011/2012	15.87	15.47
2012/2013	16.21	15.99
2013/2014	16.56	16.58
Average	16.21	16.01

Source: FLSM, ACCC data, Frontier analysis

The ACCC's use of 2002/3 call volumes also had a significant impact on the prices of call services, relative to those that would have been derived from a fully allocated approach using current and forecast total call volume data.

Although we have not attempted to estimate the impact of using lower call volumes, we note that the call volumes in 2002/3 were likely to be multiples of those experienced in 2009/10. Although using these call volumes would not have increased the ULLS price directly – and so achieved the ACCC's immediate objective – it would have undoubtedly had the effect of increasing Telstra's revenues recovered from the supply of fixed line services overall. This would have been consistent with the ACCC's overall objective of ensuring that the legitimate business interests of Telstra were promoted by allowing for cost recovery overall (thereby promoting future investment).

4. Would adopting Telstra's methodology without offsetting adjustments to the RAB create a windfall gain for Telstra?

From our analysis of the adjustments made in 2011 to support a higher ULLS price than was initially delivered by the FLSM, we conclude that:

- Adjustments made to the RAB by the ACCC relied on the implicit use of cost allocation factors that did not take account of (actual or forecast) fixed demand changes either for SIOs or for calls on the fixed network.
- The ACCC could have chosen to reach its \$16 'tie point' for ULLS pricing by adjusting its cost allocation approach rather than by increasing the RAB, but chose not to do so.
- If the ACCC wishes to change its approach to cost allocation, it should also consider revising the RAB so as to avoid providing Telstra with a windfall

gain. The two decisions were not made independently in 2011, and so should not now be considered independently.

We continue to support the ACCC's view that changing the cost allocation approach to reflect total demand changes is undesirable and inconsistent with the ACCC's reasoning in 2011. That said, if the ACCC is minded to change its approach, we submit that the ACCC faces two options given the history of the setting of the RAB described above:

1. Change the cost allocation method and also reverse the initial RAB adjustment, or
2. Make neither adjustment (i.e. maintain the current cost allocation approach and maintain the current RAB).

We submit that making only one of the two adjustments could not be in the LTIE, and will result in Telstra recovering more revenue than is necessary to promote Telstra's legitimate business interests.