

# **Telstra TEM Substantiation Report Quarter 3 and Quarter 4 – 2011/12**

**Quarter 3: 1 January 2012 – 31 March 2012**  
**Quarter 4: 1 April 2012 – 30 June 2012**

**31 August 2012**

**Public Version**

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## 1. Executive Summary

Telstra's Structural Separation Undertaking (SSU) came into force on 6 March 2012. The SSU includes new commitments by Telstra to ensure equivalence in pricing across wholesale customers and Telstra's retail business, and improved transparency in relation to Telstra's internal costs. Telstra will periodically publish reports based on the Telstra Economic Model (TEM) that makes the revenue and cost information that Telstra itself uses to run the business transparent to the ACCC.

Where a TEM report shows that the External Wholesale Price (EWP), the price faced by wholesale customers, is not within +/-5% of the effective Internal Wholesale Price (IWP) faced by Telstra for certain wholesale service bundles, Telstra will be required to submit to the ACCC a 'substantiation report' providing an explanation for this result.

The TEM reports and any substantiation reports will be available to the ACCC for any future ACCC regulated pricing reviews.

The 2011/12 TEM Reports for both Quarter 3 (Q3) and Quarter 4 (Q4) show that, overall, Telstra is treating wholesale customers more favourably than Telstra's own retail business units. While Telstra's retail business units are treated more favourably for most resale services, wholesale customers are treated much more favourably for PSTN OTA, ULLS and LSS.

The explanations for the variances observed in the TEM Reports can be summarised as:

- The methodology used to determine costs in TEM differs from that used by the ACCC's models used in setting prices for fixed line services. For example, the TEM Report uses allocation rules from Telstra's accounting systems, while the ACCC's Fixed Line Services Model (FLSM) uses allocation rules derived from its TSLRIC model.
- The TEM model is based on recent historical information, while the ACCC's pricing model is based on forecasts.
- While different wholesale services tend to be purchased in different geographic areas (e.g. ULLS and LSS are typically sold in lower cost areas and resale services tend to be sold in higher cost areas) TEM is unable to differentiate costs geographically in the same way, as Telstra's financial systems do not capture this information.
- The Q3 reporting period covers the commencement of the Wholesale ADSL (WADSL) Interim Access Determination (IAD) pricing, and the Q4 reporting period includes the commencement of the three month SSU WADSL election period for eligible wholesale customers, and some wholesale customers may have remained on contracted rates for that service for much of these quarters. This is reflected in the EWP for Q3 and Q4 and will continue until the full quarter after the expiry of the election period.
- The IWP calculation does not necessarily account for all economic costs that are appropriately recovered through prices.

## 2. TEM Report Results

Telstra provides the TEM Report to the ACCC for each reporting quarter. This report tables the financial measures for the Reportable Retail Products and the Reportable Wholesale Products specified by the SSU, and reports the IWP and EWP for the Reportable Wholesale Products and Reportable Product Bundles.

The IWP is calculated as the sum of allocated expenses, depreciation and amortisation, and cost of capital, divided by the total demand for each Reportable Product Bundle and Reportable Wholesale Product. This is effectively the internal cost for the same network requirements as required by the Reportable Wholesale Bundle or Reportable Wholesale Product.

The EWP is calculated as the total revenue divided by the total demand for each Reportable Product Bundle and Reportable Wholesale Product. This external price is in effect the average yield for each Reportable Wholesale Bundle or Reportable Wholesale Product.

### 2.1. Reportable Wholesale Bundles

The TEM report for Q3 FY12 shows that, overall, Telstra treats wholesale customers more favourably than Telstra's retail business units. It shows that prices for the bundle of all wholesale services are in favour of wholesale customers, relative to Telstra's retail business units, by 5.8%. The results also show that prices for the bundles of voice and voice plus ADSL are favourable to Telstra's retail business units by 7.3% and 11.1%, respectively, but prices for the bundle of ULLS and LSS are favourable to wholesale customers by 35.7%.

Table 1. TEM Q3 FY12 Results – Reportable Product Bundles

Wholesale Bundle		Internal Wholesale Price (per qtr)	External Wholesale Price (per qtr)	Variance
All Reportable Wholesale Products	per SIO	\$133.13	\$125.36	5.8%
Voice and ADSL Bundle	per SIO	\$162.36	\$180.31	-11.1%
Voice Bundle	per SIO	\$99.45	\$106.70	-7.3%
ULLS and LSS Bundle	per SIO	\$61.11	\$39.27	35.7%

The TEM Report for Q4 FY12 shows that overall Telstra treats wholesale customers more favourably than Telstra's retail business units to an even greater extent than Q3.

Table 2. TEM Q4 FY12 Results - Reportable Product Bundles

Wholesale Bundle		Internal Wholesale Price (per qtr)	External Wholesale Price (per qtr)	Variance
All Reportable Wholesale Products	per SIO	\$131.44	\$119.83	8.8%
Voice and ADSL Bundle	per SIO	\$161.69	\$171.36	-6.0%
Voice Bundle	per SIO	\$98.91	\$104.32	-5.5%
ULLS and LSS Bundle	per SIO	\$61.86	\$40.91	33.9%

## 2.2. Reportable Wholesale Products

Both Q3 and Q4 TEM reports demonstrate the significant range of variances at the wholesale product level. While the prices for resale products are more favourable for Telstra's retail business units, wholesale customers face much more favourable prices for PSTN OTA, ULLS and LSS services.

**Table 3. TEM Q3 FY12 Results – Reportable Wholesale Products**

Wholesale Product		Internal Wholesale Price (per qtr)	External Wholesale Price (per qtr)	Variance
WLR	per SIO	\$50.42	\$69.35	-37.5%
WADSL Zone 1	per SIO	\$56.32	\$77.31	-37.3%
WADSL Zone 2	per SIO	\$68.84	\$94.49	-37.3%
WADSL AGVC	per Mbps	\$255.71	\$181.21	29.1%
LCS	per call	\$0.085	\$0.089	-4.3%
PSTN OTA	per end min	\$0.0151	\$0.0095	37.0%
ULLS	per SIO	\$70.65	\$50.47	28.6%
LSS	per SIO	\$28.44	\$6.11	78.5%

Note: See Appendix A for complete table including all Reportable Wholesale Product Charge Types.

**Table 4. TEM Q4 FY12 Results – Reportable Wholesale Products**

Wholesale Product		Internal Wholesale Price (per qtr)	External Wholesale Price (per qtr)	Variance
WLR	per SIO	\$50.26	\$68.25	-35.8%
WADSL Zone 1	per SIO	\$58.16	\$76.51	-31.5%
WADSL Zone 2	per SIO	\$68.16	\$89.66	-31.5%
WADSL AGVC	per Mbps	\$240.35	\$129.25	46.2%
LCS	per call	\$0.091	\$0.090	0.7%
PSTN OTA	per end min	\$0.0157	\$0.0096	39.1%
ULLS	per SIO	\$68.14	\$51.61	24.3%
LSS	per SIO	\$29.20	\$5.87	79.9%

Note: See Appendix B for complete table including all Reportable Wholesale Product Charge Types.

### 2.3. Wholesale Customers

Equivalence should be considered at an aggregate level because wholesale customers typically purchase a range of services, taking into consideration their own retail customer base. Telstra wholesale customers typically purchase a range of services across the Total Reportable Wholesale Product Bundle and, on average, have more favourable terms.

While the aggregate result for all wholesale customers is what is important and relevant, for the purpose of illustrating the position likely to be faced by wholesale customers, Telstra has also looked at the likely average weighted variance between the IWP and EWPs for three of Telstra's largest wholesale customers.

Using publicly available information, Telstra has set out the reported subscriber (SIO) numbers and the proportions of On-Net SIOs and Off-Net SIOs (where reported) for three of Telstra's wholesale customers, and estimated the variance between IWP and EWP weighted by On-Net and Off-Net SIO proportions (Table 5). On-Net services are typically provided using the LSS or ULLS products, while Off-Net services are supplied using either WLR (for voice services) or WADSL (for broadband services).

For example, iiNet reports a split of approximately 65% On-Net and 35% Off-Net broadband subscribers. While their public reporting does not distinguish whether LSS or ULLS are employed to provide the On-Net services, either would more than offset any perceived unfavourable terms for the WADSL services. The table demonstrates that based on their publicly reported mix of services, all three wholesale customers are treated more favourably than Telstra's retail business units in relation to the bundle of services they purchase.

**Table 5. Selected Wholesale Customers' Estimated IWP/EWP Variance**

		Reported SIOs '000s	Reported On-Net SIOs	Reported Off-Net SIOs	Weighted Variance Q4
<b>iiNet<sup>1</sup></b>	Voice	404	Not stated		NA
	Broadband	839	65%	35%	14.0%
<b>Optus<sup>2</sup></b>	Voice <sup>(exc HFC)</sup>	566	92%	8%	22.7%
	Broadband <sup>(exc HFC)</sup>	548	96%	4%	23.9%
<b>TPG<sup>3</sup></b>	Voice	172	91%	9%	22.3%
	Broadband	567	81%	19%	19.1%

Notes: On-Net and Off-Net SIOs are as publicly reported (see footnotes).

Weighted Variance calculated using Q4 variances for ULLS (for On-Net) and WLR or WADSL (for Off-Net).

<sup>1</sup> iiNet FY12 Results Presentation, page 12 <http://investor.iinet.net.au/IRM/Company/ShowPage.aspx/PDFs/1635-17023948/PresentationFullYearResults>

<sup>2</sup> SingTel Group Results FY 2012/13, Historical Financial Summaries spreadsheet, "Optus Driver New" tab <http://info.singtel.com/about-us/investor-relations/financial-results>

<sup>3</sup> TPG Half Year Results Presentation, 20 March 2012, page 11 "Consumer: Broadband Subscribers" & page 13 "Consumer: Home Phone Subscribers" [http://www.tpg.com.au/about/pdfs/TPMHY12\\_26\\_Final.pdf](http://www.tpg.com.au/about/pdfs/TPMHY12_26_Final.pdf)

### 3. Explanation of Results

Telstra commits in the SSU to include an explanation for any differences of more than 5% between the internal and external wholesale prices for Reportable Product Bundles. As indicated above, for both the third and fourth quarters of 2012, the voice bundle, the voice and ADSL bundle, and the bundle of all Reportable Wholesale Products have a variance between the IWP and EWP of more than 5%.

The individual services underlying these bundles are regulated by the ACCC and subject to either a final or interim access determination. As such, the EWP tends to be similar to the regulated prices set for those services, although revenue allocations and commercially negotiated deviations from regulated rates are causes for some differences. This is illustrated in the figure below for Q4 2012.

**Table 6. Average Monthly EWP and Regulated Prices (Q4 FY12)**

Wholesale Services			IWP	EWP	Regulated Price
<b>TOTAL BUNDLE OF FIXED WHOLESALE SERVICES Per SIO</b>			<b>43.81</b>	<b>39.94</b>	
<b>VOICE AND ADSL BUNDLE Per SIO</b>			<b>53.90</b>	<b>57.12</b>	
Wholesale ADSL	In-Place Connection	per connection	79.92	57.52	22.50 to 80
	New Connection	per connection	-	-	-
	AGVC	per Mbps	80.12	43.08	45.50
	Port Zone 1	per SIO	19.39	25.50	25.40
	Port Zone 2	per SIO	22.72	29.89	30.80
<b>VOICE BUNDLE Per SIO</b>			<b>32.97</b>	<b>34.77</b>	
Wholesale Line Rental (WLR)	In-Place Connection	per connection	22.87	59.56	n/a
	New Connection	per connection	89.09	231.99	n/a
	Rental	per SIO	16.75	22.75	22.84
Local Calls	Usage	per call	0.09	0.09	0.089
PSTN OTA	Usage	per end min	0.0157	0.0096	0.0095
Unbundled Local Loop Service (ULLS)	Connection	per connection	157.90	110.41	Variable
	Port	per SIO	22.71	17.20	16.21 to 48.19
Line Sharing Service (LSS)	Connection	per connection	108.76	132.36	Variable
	Port	per SIO	9.73	1.96	1.80
MTAS	Usage	per end min	0.06	0.06	0.06

Because the EWP tends to be similar to the regulated rates, differences between the IWP and EWPs tend to be caused by differences between the IWPs and the regulated prices. For all the reportable wholesale services except WADSL, the difference between the IWPs and the regulated rates (and EWPs) can be explained by the fact that the former are determined by the TEM and the latter are determined by the ACCC's Fixed Line Services Model (FLSM). The TEM and the ACCC's FLSM are quite different models - some of the major differences between these models are explained below in section 3.1.

As discussed in section 3.2, the TEM uses historical financial information for operating and capital expenditure and demand relating to the relevant financial period, while the ACCC's FLSM is based on forecast information.

A further explanation for differences between the IWP and EWP for ULLS and WADSL services is that the EWPs are largely based on geographically deaveraged prices, while the IWPs are based on geographically averaged costs. The effect this has on the difference between the IWP and EWPs is discussed in section 3.3.

Additionally, an explanation for the WADSL EWP being higher than the IWP is that the ACCC recently reduced the prices for WADSL in its IAD and the effects are yet to be fully passed through to the EWP. This is explained below in section 3.4.

Finally, the regulated prices for services are set having regard to legislative criteria that are broader than what is measured by TEM reporting. In the setting of prices for some regulated services, those legislative criteria would be promoted by considering economic costs that are not counted in TEM. This is explained in section 3.5.

The table below summarises which of the above explanations relate to the individual services and reportable product bundles.

**Table 7. Summary of explanations for IWP/EWP variances**

				Explanation affecting IWP/EWP variance (if any)				
				Differences between TEM and the FLSM	Difference between FSLM forecasts and TEM actuals	Geographic differentiation	WADSL IAD Pricing	Other Economic Costs
BUNDLE OF FIXED WHOLESALE SERVICES	ULLS			X	X	X		X
	LSS			X	X			
	VOICE AND ADSL BUNDLE	WADSL				X	X	
		VOICE BUNDLE	WLR	X	X			X
			Local Calls	X	X			X
			PSTN OTA	X	X			X

### 3.1. TEM and the FLSM

The regulated prices for many of the Reportable Products have been set by the ACCC using the FLSM. While the EWPs for fixed line services are largely determined by the FLSM, the IWPs for those same services are calculated from the TEM. TEM is not a regulatory cost model, but rather it is the set of management accounts used by Telstra to measure costs and revenues associated with specific services and to inform internal decision making. The FLSM and TEM are fundamentally different models. Some of the major differences which have impacted on the variances in the reports include:

- methods of cost allocations;
- methods of unitisation; and
- different inputs and definitions (including the WACC).

The methodologies of cost allocation in TEM differ from those used in the ACCC's FLSM. The TEM allocation factors are based on activity accounting methodologies, guided by the allocation principles set out in the SSU. They are also updated regularly each quarter to reflect the latest activity information. The FLSM's allocators are based on the ACCC's previous TSLRIC model (the Analysys model) and are guided by the fixed principles in the ACCC's FAD. They are set for the three-year regulatory period and so reflect forecasts made at the beginning of that regulatory period. There are also specific differences in allocation methodologies. The TEM model would allocate costs specific to a service to that service, while the ACCC has adopted a principle of pooling some costs and spreading them over a group of services (specifically, for ULLS, LSS and ADSL). Further, the TEM model allocates network costs to all services that use the network, while for some network costs (for example, CAN costs) the ACCC allocates to a specific group of services.

With respect to unitisation, the TEM Report divides annual costs by actual demand for the quarter. For some services (ULLS, WLR, and OTA) the ACCC's FLSM divides the annual revenue requirement (cost) by historical demand, where the historical demand is higher than current demand.



The TEM report also uses different inputs to the FLSM including asset lives, values for some assets, depreciation rates, and the WACC<sup>4</sup> among other things. It also has different definitions for services that can affect any comparison. For example, the FLSM defines OTA and LCS to include all retail and wholesale minutes, while TEM treats retail and wholesale minutes separately.

### 3.2. Forecast versus actual data

The TEM uses financial information from Telstra's accounting systems, including historical operating and capital expenses, and demand that relate to the relevant financial period. In contrast, the ACCC's FLSM is a forward-looking model that uses forecasts for operating and capital expenses and demand (except for some assets as discussed above) over the regulatory period. The table below illustrates difference between demand forecasts used in the FLSM and historical demand used in the TEM quarterly reports.

**Table 8. Differences between demand forecasts and actual**

[Commercial-in-confidence commences]

[Commercial-in-confidence ends]

Note: Demand for OTA and LCS in the FLSM is a combination of retail and wholesale demands that are not directly comparable to the demand figures in the TEM reports.

### 3.3. Geographic differentiation

While different wholesale services tend to be purchased at different prices in different geographic areas (e.g. ULLS is typically purchased in lower cost areas and WADSL services tend to be purchased in higher cost areas), TEM is unable to differentiate costs geographically in the same way, as Telstra's financial systems don't capture this information.

For example, the WADSL EWP depends on geographically de-averaged prices, while the WADSL IWP is calculated using geographically averaged costs. The revenue per WADSL Zone is identifiable but the WADSL expenses and capital are not, as Telstra's financial systems are unable to determine the same geographic split. The IWP for WADSL by Zone was calculated by allocating costs as per the proportional revenue for each Zone.

At the same time, the take-up of WADSL services in regional areas (Zone 2 and Zone 3) is disproportionate compared to the take-up of all ADSL services. As at June 2012, [Commercial-in-confidence commences] [Commercial-in-confidence ends] of WADSL services were acquired within Zone 2/3, compared to [Commercial-in-confidence commences] [Commercial-in-confidence ends] for all retail and wholesale ADSL services. As a result, the WADSL EWP, which reflects this bias in service take-up to higher-priced regional areas, will naturally be higher than the IWP, which is mostly calculated on the basis of costs averaged over all geographic areas.

ULLS exhibits similar issues, with the relative take-up of ULLS services being highly skewed to ULLS Bands 1, 2 and 3, relative to the distribution of all access lines. As a result, care must be taken in comparing the IWP and EWP for these services in isolation.

<sup>4</sup> For instance, in the FLSM the ACCC uses a post-tax WACC of 8.54% and an effective tax rate of 35.88%, while the TEM reports use a pre-tax WACC of 12.24%.

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### 3.4. WADSL IAD Pricing

WADSL IAD pricing is based on a retail minus retail cost basis, which is different to the basis upon which the IWP is calculated. Further, both the Q3 and Q4 reporting periods include events which have impacted the EWP for WADSL:

- The WADSL IAD pricing commenced on 14 February 2012; and,
- The SSU provisions for election of WADSL rates came into effect on 7 May 2012.

The WADSL IAD pricing commenced part way through the Q3 reporting period. Most customers remained on previously contracted rates for much of this quarter, and the EWP reflects the average effective wholesale price agreed by wholesale customers over the quarter.

By the end of Q3, there were [Commercial-in-confidence commences] [Commercial-in-confidence ends] wholesale customers on IAD rates covering [Commercial-in-confidence commences] [Commercial-in-confidence ends] of WADSL customers' end-users.

Similarly, the SSU election period commenced part way through the Q4 reporting period. Under Clause 18.3 of the SSU, existing WADSL customers had a three month window, from the date Telstra first published the Reference Price for WADSL, in which to elect to acquire WADSL services at prices set out in the Reference Price Rate Card.

As at the end of Q4, [Commercial-in-confidence commences] [Commercial-in-confidence ends] wholesale customers were on IAD rates (or with accruals in place) covering [Commercial-in-confidence commences] [Commercial-in-confidence ends] of WADSL customers' end-users.

The overall effect of the reduced WADSL IAD pricing is therefore delayed in TEM. While reduced variance can be seen in the WADSL variance due to reduced WADSL prices, it is expected that the full effect will not flow through to the TEM reports until after Quarter 1 of 2012/13, that is, until the full quarter after the expiry of the three month election period for eligible wholesale customers.

### 3.5. Other Economic Costs

The regulated prices for services are set having regard to legislative criteria that are broader than what is measured by TEM reporting. It is often the case that those legislative criteria would be promoted by considering economic costs that are not necessarily counted in TEM, which measures accounting costs. For example, the legislative criteria require a different approach to valuing land assets, to that applied in TEM. Land assets are valued accounting for the cost of inflation, which promotes the legislative criteria, while the TEM values land at historic cost. Land assets in the FLSM are relevant to the pricing of ULLS, WLR, local calls and OTA.

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## Appendix A – Quarter 3 2011/12 Results

Wholesale Services			Internal Wholesale Price <small>(Costs Telstra retail business units faces for the same components purchased by wolesale customers)</small>	External Wholesale Price <small>(Average revenue from supply to wolesale customers)</small>	% Variation
Wholesale Line Rental (WLR)  Local Calls PSTN OTA	In-Place Connection	per connection	21.00	54.19	-158.01%
	New Connection	per connection	92.21	237.92	-158.01%
	Rental	per SIO	50.42	69.35	-37.53%
	Usage	per call	0.085	0.089	-4.34%
	Usage	per end min	0.0151	0.0095	36.96%
<b>VOICE BUNDLE</b>			<b>99.45</b>	<b>106.70</b>	<b>-7.29%</b>
Wholesale ADSL	In-Place Connection	per connection	69.21	66.97	3.24%
	New Connection	per connection	-	-	-
	AGVC	per Mbps	255.71	181.21	29.13%
	Port Zone 1	per SIO	56.32	77.31	-37.26%
	Port Zone 2	per SIO	68.84	94.49	-37.26%
<b>VOICE AND ADSL BUNDLE</b>			<b>162.36</b>	<b>180.31</b>	<b>-11.05%</b>
Unbundled Local Loop Service (ULLS)	Connection	per connection	127.56	108.61	14.86%
	Port	per SIO	70.65	50.47	28.57%
Line Sharing Service (LSS)	Connection	per connection	83.09	88.13	-6.06%
	Port	per SIO	28.44	6.11	78.51%
<b>TOTAL BUNDLE OF FIXED WHOLESALE SERVICES</b>			<b>133.13</b>	<b>125.36</b>	<b>5.84%</b>
MTAS	Usage	per end min	0.06	0.06	0.00%

## Appendix B – Quarter 4 2011/12 Results

Wholesale Services			Internal Wholesale Price  (Costs Telstra retail business units faces for the same components purchased by wolesale customers)	External Wholesale Price  (Average revenue from supply to wolesale customers)	% Variation
Wholesale Line Rental (WLR)	In-Place Connection	per connection	22.87	59.56	-160.39%
	New Connection	per connection	89.09	231.99	-160.39%
	Rental	per SIO	50.26	68.25	-35.79%
Local Calls	Usage	per call	0.091	0.090	0.70%
PSTN OTA	Usage	per end min	0.0157	0.0096	39.10%
<b>VOICE BUNDLE</b>			<b>98.91</b>	<b>104.32</b>	<b>-5.48%</b>
Wholesale ADSL	In-Place Connection	per connection	79.92	57.52	28.03%
	New Connection	per connection	-	-	-
	AGVC	per Mbps	240.35	129.25	46.22%
	Port Zone 1	per SIO	58.16	76.51	-31.54%
	Port Zone 2	per SIO	68.16	89.66	-31.54%
<b>VOICE AND ADSL BUNDLE</b>			<b>161.69</b>	<b>171.36</b>	<b>-5.98%</b>
Unbundled Local Loop Service (ULLS)	Connection	per connection	157.90	110.41	30.08%
	Port	per SIO	68.14	51.61	24.26%
Line Sharing Service (LSS)	Connection	per connection	108.76	132.36	-21.70%
	Port	per SIO	29.20	5.87	79.90%
<b>TOTAL BUNDLE OF FIXED WHOLESAL SERVICES</b>			<b>131.44</b>	<b>119.83</b>	<b>8.83%</b>
MTAS	Usage	per end min	0.06	0.06	0.00%