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Ms Christine Williams
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Telstra Corporation Limited

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Dear Ms Williams,

Telstra request for ACCC's analysis

I refer to your letter of 22 September 2010 requesting the ACCC's workings, assumptions and analysis in relation to certain aspects of the ACCC's draft decision as set out in the ACCC's *Review of the 1997 telecommunications access pricing principles for fixed line services – Draft Report* (the Draft Report) released on 17 September 2010.

The Draft Report sets out in detail the workings, assumptions and analysis on which the ACCC's views and estimates are based. The Ovum Building Block Model (Ovum BBM) provides more detailed workings behind the price estimates. I note that the ACCC provided redacted and unredacted versions of the Ovum BBM and the accompanying user manual to Ms Jane van Beelen on 23 September 2010. Further details in answer to your request are provided below.

Valuation of infrastructure assets

You requested "the analysis which the ACCC has used to form a view of the relationship between Telstra's actual costs and the valuations of infrastructure assets under the TSLRIC+ framework (referred to on page 23 of the Draft Report and in footnote 21)".

Under a TSLRIC+ approach, assets were re-valued on the basis of their optimised replacement cost each time a pricing determination was made. The forward looking perspective to measuring TSLRIC+ meant that the new value was based on the cost to a hypothetical new entrant of replacing the existing network with modern equivalent assets. The TSLRIC+ assumption that the hypothetical new entrant replaces the existing network with new assets meant that the undepreciated value of assets is used in modelling optimised replacement cost. As set out page 23 of the Draft Report, the (undepreciated) cost of replacing the infrastructure that provides fixed line services has been increasing. Therefore, the cost to a hypothetical new entrant of replacing the existing network with modern equivalent assets would be at these increased values.

In contrast, Telstra's actual assets have been depreciated since they were put in place. Many of Telstra's existing assets have been in place for many years and their depreciated values as recorded in the Regulatory Accounting Framework (RAF) are significantly lower than the undepreciated cost of a modern equivalent asset.

Regulatory asset base estimate

You requested "the analysis undertaken of the $9 billion amount which was agreed between Telstra and the Australian Government in the Financial Heads of Agreement and, in particular, how the ACCC arrived at an estimate close to $7.5 billion for the regulatory asset base (page 29 of the Draft Report)".

The Financial Heads of Agreement (FHOA) is reported to be worth an expected value of $9 billion in net present value terms. As noted in the Draft Report, the $9 billion will generally comprise:

- lease payments over time for the reuse of suitable Telstra infrastructure, including pits, ducts and backhaul fibre by NBN Co, as it starts to rollout its new network, and
- migration payments as the copper and HFC networks are de-commissioned.

The lease payments would include recovery of operating and capital expenditures incurred by Telstra before lines are de-commissioned. Therefore the payments under the FHOA reflect recovery of operating expenditure and a return on capital, as well as the return of capital. The ACCC considers that the net present value of the return of capital payments included in the total FHOA payments would be a good reflection of the current value placed on the copper and HFC networks.

As stated in the Draft Report (page 27), the ACCC used depreciated actual costs set out in the RAF as the basis for reaching the initial RAB value of $7.5 billion for the CAN assets.

WACC parameters

You asked for "the analysis undertaken in relation to the WACC parameters, including the workings that show how the ACCC arrived at its estimates for the risk free rate, the debt risk premium, the market risk premium and the gamma (pages 33-34 and 65-80 of the Draft Report), and the particular analysis that led the ACCC to conclude that: (1) the appropriate debt issuance cost is 8.5 basis points (page 75 of the Draft Report); (2) average dividend payout ratio for Telstra from 2000 to 2010 has been 100.3% (page 78 of the Draft Report); and (3) Telstra distributes 100% of its franking credits (page 78) of the Draft Report)".

Risk free rate

To obtain the risk-free rate, daily yields on 10-year Commonwealth Government Securities (CGS) were extracted from Bloomberg. The code for 10-year CGS on Bloomberg is C12710Y. As stated in the Draft Report (at pages 67 and 68), the ACCC used a 10 day averaging period from 2 June 2010 to 15 June 2010 to calculate the risk free rate, using the downloaded daily yields.

Debt risk premium

To calculate the debt risk premium, the yield on 10-year A-rated Australian corporate debt is required. In the absence of 10-year A-rated corporate debt, the sum of the yield on 7-year A-rated corporate debt and the term premium between 7-year and 10-year AAA corporate debt was used as a proxy for the appropriate 10-year rate.

The relevant Bloomberg codes used were:

- C3597Y: 7-year A-rated corporate debt
- C3577Y: 7-year AAA-rated corporate debt
- C35710Y: 10-year AAA-rated corporate debt

To calculate the debt risk premium, the ACCC calculated the difference between the 7 year AAA rated bond and 10 AAA rated bond to obtain the term premium. This term premium was added to the 7 year A rated bond yield to obtain a 10 year cost of debt. The 10 year CGS yield was then deducted from the 10 year cost of debt to obtain the debt risk premium.

As stated in the Draft Report (at page 74), the ACCC used a 10 day averaging period from 2 June 2010 to 15 June 2010.

Market risk premium

The Draft Report fully explains the basis for the market risk premium adopted by the ACCC (at pages 69-70). The references cited in relation to the market risk premium in footnotes 91-96 are all publicly available via the internet. The Handley paper referred to in footnote 91 and the AER papers referred to in footnotes 92 and 96 are available at www.aer.gov.au. The Troung, Partington and Peat paper referred to in footnote 93 is available at www.agsm.edu.au/eajm. The KPMG paper referred to in footnote 94 is available at www.aemc.gov.au. The Hathaway paper referred to in footnote 94 and the ACCC papers referred to in footnote 95 are available at www.accc.gov.au.

Debt issuance cost

Estimated debt issuance costs are based on the methodology set out in the Allen Consulting Group (ACG), *Allen Consulting Group, Debt and equity raising transaction costs: final report to the ACCC,* December 2004. The ACG report is available at www.aer.gov.au under 'Consultancy reports'.

The relevant data in the tables in the ACG report have been updated using Bloomberg data but the methodology has not changed. In estimating debt issuance costs for the Draft Report, the ACCC had regard to the tables included in the AER's *Draft*

decision: South Australia draft distribution determination 2010-11 to 2014-15, 25 November 2009, Appendix I.4.2.

The ACG methodology involves recording the transaction costs of Australian international bonds and tabulating these as a function of issue size. Using the ACG methodology provides a standardised means by which to derive debt issuance costs as the only relevant variable under this approach is the amount of debt on issue. The ACG methodology uses a five-year rolling window. This means only bonds from the last five years are relevant to the calculation.

For the purposes of the Draft Report, $500 million was determined to be the appropriate benchmark issue size from which debt issuance costs of 8.5 bppa were ascribed. The benchmark issue size of $500 million was determined by examining Telstra's bonds on issue over the last five years, using data from Bloomberg.

Gamma, average dividend payout ratio and distribution of franking credits

As stated in the Draft Report (at page 77), gamma is determined as the product between the imputation payout rate F and the utilisation rate theta.

To estimate the value of theta, it was assumed that theta equals 1.0 for domestic shareholders and zero for foreign investors for the reasons set out in the Draft Report (at page 77). The source of the shareholder limitations on foreign ownership applicable to Telstra and the reasons for using these limitations to set the value of theta are fully explained in the Draft Report (at pages 77-78).

The value of F for Telstra was determined from data sourced from Bloomberg. The dividend payout ratios for 2000 to 2010 were averaged. The imputation payout rate was also obtained through Bloomberg.

The ACCC also had regard to recent empirical studies of gamma referenced in footnotes 119, 120, 122 and 123. The Dempey and Partington paper referred to in footnote 119 is available at www.onlinelibrary.wiley.com. The SFG Consulting paper referred to in footnote 119 is available at www.docstoc.com. The two papers in *The Economic Record* referred to in footnote 120 are available at papers.ssrn.com. The SFG Consulting paper referred to in footnote 120 is available at www.esc.vic.gov.au. The Heaney working paper referred to in footnote 122 is available from Richard.Heaney@rmit.edu.au. The Hathaway and Officer paper referred to in footnote 123 is available at www.accc.gov.au.

Cost allocation factors

You asked for "the analysis undertaken in relation to the cost allocation factors, including the detailed workings on how the Analysys cost allocation factors were adjusted with the more up-to-date information and the relevant copy of the Analysys model (pages 44, 88-95 of the Draft Report)".

The revised Analysys model, including the cost allocation factors module, is attached. Also attached are redacted and unredacted versions of the Analysys report setting out the revisions made to the model in response to industry submissions. All of the confidential information included in the unredacted report is commercial-in-

confidence to Telstra. The redacted information is not necessary to understand the Analysys cost allocation factors.

The method used to derive cost allocation factors in the Analysys model is explained in detail in the Draft Report (at pages 88-80). The Draft Report (at pages 90-94) also explains how the cost allocation factors in the Analysys model have been adjusted by the ACCC.

The first set of adjustments have been made to remove the impact of optimisation on the cost allocation factors, using the methods explained in the Draft Report. The Analysys factors used to allocate costs related to ducts and pipes and copper cables to ULLS and WLR have been replaced by factors derived from the shares of services in operation for ULLS and WLR. These shares are set out in table A7.1. They correspond to the cost allocation factors shown in table A7.3 for 2009-10; differences between the tables reflect rounding of the factors shown in table A7.3.

The adjustments for PSTN OTA are explained in the Draft Report (at pages 92-93). As stated in the Draft Report, for local switching equipment, the adjustment involves using the total peak voice traffic volume in 2002-03 as the denominator each year and the forecast demand for PSTN OTA as the numerator to calculate a revised cost allocation factor. The detailed workings, which include confidential data, are set out in Table 1 in the attachment.

The method used to forecast PSTN OTA minutes is explained in section A8 of the Draft Report.

For trunk and other switching equipment, the Draft Report (at pages 92-93) explains that the adjustment process ensures that the routing factors built into the Analysys cost allocation factors are retained. To do so, the ACCC has maintained the relativity between the 2009-10 Analysys factors for trunk and other switching equipment and the factor for local switching equipment. This was done by dividing the adjusted local switching cost allocation factor by the unadjusted cost allocation factor from the Analysys model to derive a scaling factor. The unadjusted cost allocation factors for trunk and other switching equipment are then multiplied by the scaling factor to obtain the adjusted cost allocation factors for those asset classes, as follows:

> Analysys local switching cost allocation factor = 0.208
> Adjusted local switching cost allocation factor = 0.107
> Scaling factor = 0.107/0.208 = 0.514
>
> Adjusted trunk switching cost allocation factor = 0.441 * 0.514 = 0.226
> Adjusted other switching cost allocation factor = 0.431 * 0.514 = 0.221

The second set of adjustments have been made to the cost allocation factors for transmission equipment to take into account the significant increase in data traffic over recent years and the resulting changed pattern of demand. Table 2 in the attachment sets out the detailed workings for the adjustment to the cost allocation factor for transmission equipment to PSTN OTA, using traffic volumes for PSTN OTA call minutes and data traffic obtained from the RAF. These working include confidential data. The adjusted cost allocation factor for 2008-09, marked as **(3)** in the table below, is calculated by reducing the unadjusted cost allocation factors, marked as **(2)**, by the percentage reduction in the share of PSTN voice traffic in total PSTN traffic, marked as **(1)**.

The third set of adjustments were made to incorporate the latest actual demand figures where they differed from the forecast demands used by Analysys in developing its cost allocation factors. The actual demand figures used are set out in the Draft Report (at page 96) and in the Ovum BBM. The forecast demand figures used by Analysys are set out in the model, a copy of which is attached. The unadjusted cost allocation factors are available in the Analysys model while the adjusted cost allocation factors are available in the Ovum BBM.

Over the estimation period, the ACCC has further adjusted the adjusted cost allocation factors to reflect changes in demand over the period. The forecast demands for each service are set out in the Draft Report (at page 96) and the Ovum BBM. Where demand has increased/decreased by X per cent from one year to the next, the cost allocation factor has also been increased/decreased by X per cent.

Effective tax rate

You asked for "the analysis undertaken in deriving an effective tax rate (pages 84-85 of the Draft Report)".

The effective tax rate is calculated by the Ovum BBM. The detailed workings are available from the model and explained in its accompanying user manual (see pages 35-38).

Demand forecasts

You asked for "the analysis relating to the demand forecasts including detailed workings relating to the adjustments made to the Analysys estimates for demand for each service (pages 96-98 of the Draft Report)".

The ACCC did not rely on, or adjust, the Analysys demand forecasts.

The ACCC developed its own forecasts by examining recent trends in actual demand growth for the services where this information is available. The sources used to obtain actual demand data are stated in the Draft Report (at pages 96-98). All of the assumptions made by the ACCC in developing its demand forecasts are set out in the Draft Report (at pages 96-98).

It should be noted that since the cost allocation factors have been adjusted to reflect the demand forecasts, and forecast operating and capital expenditures have been developed by extrapolating recent expenditure levels in real terms, the demand forecasts have not had a significant impact on the draft indicative prices.

Conclusion

Where Telstra does not agree with the assumptions or parameters adopted by the ACCC in its Draft Report, it should propose alternatives in its submission. The submission should include an explanation for why Telstra considers its alternative assumptions and parameters are preferable to those included in the Draft Report.

Given the relevance of this letter to the current fixed line services review, we intend to publish your letter of request and a version of our response with the Attachment redacted.

Yours sincerely

Robert Wright
General Manager
Access Operations and Pricing Branch