

Final Access Determination: the Domestic Transmission Capacity Service

Primary prices

Response to the Australian Competition and Consumer Commission

26 September 2014



CONTENTS

1	EXECUTIVE SUMMARY				
2	URC	GENT ACTION REQUIRED ON THE DTCS	5		
	2.1 2.2 2.3	COMPETITIVE MARKETS DELIVER MUCH LOWER PRICING THE LTIE IS NOT BEING PROMOTED THE DTCS CRITICAL TO ENCOURAGING REGIONAL INVESTMENT	7 .10 10		
3	LES	SONS FROM THE 2012 DTCS FAD	.12		
	 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 	INEFFICIENT LEGACY TECHNOLOGIES MAY HAVE DISTORTED BENCHMARKS	.14 .16 .18 .20 .21 .22 .22 .23		
4	AB	ETTER APPROACH TO DTCS PRICING	.26		
	4.1 4.2 4.3	LTIE IS PARAMOUNT	.26 27 28		
5	PRI	CE AND NON-PRICE TERMS ARE LINKED	.34		
6	CO	NCLUSION	35		



1 Executive summary

Vodafone Hutchison Australia Pty Limited (VHA) welcomes the opportunity to participate in the ACCC's consultation on its final access determination (FAD) discussion paper for primary prices for the Domestic Transmission Capacity Service (DTCS) (the Discussion Paper).

Until now, the impact of Telstra's overpricing of the DTCS has resulted in pervasive and damaging limitations to competition and investment in Australian telecommunications, particularly in regional and remote areas. The ACCC's approach to DTCS regulation has supported economically inefficient pricing practices that have helped protect Telstra from effective downstream fixed and mobile competition in many parts of Australia. [start c-i-c]

[end c-i-c] Telstra's unchecked

behaviour demonstrates that the 2012 FAD has not led to economically efficient pricing on declared routes nor has it constrained Telstra's behaviour in the areas where effective regulation is needed the most.

Reform to the regulation of DTCS is urgently needed. The industry and end-users have waited long enough to overcome this fundamental roadblock to competitive investment and greater consumer choice in regional Australia.

This consultation and the move to a new DTCS FAD represents a watershed moment for the regulation of the DTCS. If the ACCC makes the decision to pursue the domestic benchmarking approach it must correct the fundamental methodological errors made in 2012. If a number of crucial elements are not corrected then the ACCC's pricing will entrench and endorse Telstra's monopolistic behaviour in areas where there is no prospect of contestability because the infrastructure is uneconomic to duplicate. Clearly this is not in the long term interests of end-users (LTIE).

We are pleased that the ACCC has recognised the deficiencies in the previous FAD, and its regulation of the DTCS more generally, and VHA welcomes this development. We observe [start c-i-c]

FAD delivers efficient, forward-looking pricing for the DTCS.

VHA also welcomes the ACCC's invitation for stakeholders and their independent experts to directly engage in refining and improving the pricing approach taken in the 2012 DTCS FAD at an early stage. This is an essential pre-condition for the development of a pricing methodology which promotes the LTIE and encourages efficient use of, and investment in, infrastructure. Additionally, VHA agrees the ACCC must examine the need for additional categorical variables in the development of any further regression model and move away from the highly problematic 'averaging' paradigm towards one which better encourages economically efficient investment, thereby promoting the LTIE.

VHA remains of the view that a regression model ought to complement a cost-based pricing methodology for the DTCS (rather than being the sole determinant of price), with a building block model preferred. A building block model will anchor the efficient costs of supplying the DTCS in a manner that domestic benchmarking cannot replicate. It will also ensure self-supply of the DTCS by vertically integrated operators is properly accounted for and that the ACCC only requires a

1 [start c-i-c]



proportionate level of operating costs and asset depreciation to be recovered from access seekers. Finally, VHA's recent experience with the pricing outcomes obtained from the current regression-based domestic benchmarking approach suggests it would be prudent to avoid relying on a single methodology to set pricing for declared routes.

Given it is critical to rectify the deficiencies in the current DTCS pricing, VHA has retained the services of a leading econometrician, Dr Robert Bartels of Frontier Economics. Dr Bartels has already provided a report entitled 'Review of Regression Modelling for DTCS FAD' (Initial Report). The Initial Report was provided in response to the ACCC's declaration inquiry and a copy of it, together with instructions from VHA's legal advisers, can be found at Annexure 1. On 7 August 2014, following the release of the Discussion Paper, VHA engaged Dr Bartels to provide a supplementary report on the DTCS FAD inquiry (Supplementary Report). The Supplementary Report can be found at Annexure 2.

VHA looks forward to the ACCC's further consultation on the modelling for the 2015 DTCS FAD pricing methodology and to working together with the ACCC to arrive at a pricing methodology which permits the achievement of the statutory objectives of declaration.

Meanwhile, its responses to the questions asked and the issues identified by the ACCC are set out below. VHA has not responded to all of the ACCC's questions or adopted the structure of the ACCC's discussion paper. Rather it has focused on the key issues the FAD process must address, namely:

- 1 the nature and extent of the market failure that has occurred in relation to the DTCS;
- 2 the potential reasons why the 2012 DTCS FAD was not effective;
- 3 the process the ACCC should adopt in arriving at its new FAD and why it is important; and
- 4 how the problems can be fixed.



2 Urgent action required on the DTCS

To date, the regulation of DTCS has not delivered efficient, cost-based pricing as the ACCC might have hoped. This is clearly demonstrated by a comparison of market pricing of unregulated services with the pricing generated by the 2012 FAD.

The current regulation has not promoted the LTIE. The ACCC's regulated DTCS pricing has made the cost of acquisition of the DTCS prohibitive in certain areas, particularly in regional Australia. This has deterred investment in downstream telecommunications markets and allowed access providers to engage in practices in relation to the DTCS which discourage investment and stifle competition.

In preparation for this FAD inquiry, VHA recently undertook a comprehensive analysis of the DTCS it acquires. VHA compiled a data set covering all its invoiced core, aggregation and access DTCS acquired from third party suppliers – a total of [start c-i-c] [end c-i-c] services across declared and non-declared routes.² [start c-i-c]

[end c-i-c] VHA's analysis of the data is set out below.

[start c-i-c]

[end c-i-c]

² For the purposes of VHA's analysis, a DTCS service where the inter-exchange component is not declared (but is bundled with a declared service) is treated as a non-declared service. This reflects the manner in which VHA generally acquires services.



As shown in **Figure 2** below, VHA acquires the DTCS extensively, both in the major capital cities and to locations across Australia.





2.1 Competitive markets deliver much lower pricing

In 2011 and 2012, the ACCC embarked on an extensive statistical exercise to benchmark pricing on competitive DTCS routes. However, we observe few instances where the 2012 FAD pricing provides a useful proxy for VHA's acquisition costs. Indeed, the results of VHA's data analysis are quite stark on this point. [start c-i-c]

[end c-i-c]
[end c-i-c]
[end c-i-c]
[end c-i-c]
start c-i-c]



	- The second second
	公式 管理
[end c-i-c]	A MARKEN PARTY

[start c-i-c]	그 네는 그는 것은 보호에 가져 가장 요즘이 있는 것, 바람 관계 프레
	[end c-i-c]



[start c-i-c]		
	ſ	end c-i-cl



[end c-i-c]

In short, if the objective of the 2012 competitive benchmarking exercise was to deliver regulated pricing that was a proxy to efficient costs. For instance, the Explanatory Statement to the 2012 DTCS FAD stated that "the ACCC considers that prices on competitive routes are broadly reflective of costs... and provide an appropriate estimate of efficient prices that would prevail in competitive markets".⁴ The ACCC's objective has not been successfully achieved. An unassailable indication of this is the fact that the dominant transmission provider is pricing competitive services at less than half the benchmark price.

2.2 The LTIE is not being promoted

Ultimately, the high 2012 FAD pricing has led to inaccurate and economically inefficient build/buy signals being set for suppliers of the DTCS and stifled downstream competition. The errors in the current 2012 FAD pricing have permitted Telstra to engage in price discrimination practices that discourage downstream investment and thereby discourage competition in areas where Telstra faces limited fixed and mobile services competition. Moreover, the high prices do not provide an accurate entry signal for prospective to competitors, existing access providers in declared areas have sunk cost infrastructure so they can suddenly and substantially drop its pricing as a competitive response to entry. This is clearly contrary to the LTIE because it either:

- discourages economically efficient use of the infrastructure with pricing well above the efficient costs of supply thereby discouraging competition in downstream mobile and fixed services markets; or
- discourages economically efficient investment by encouraging entry for prospective competitors when they cannot sustainable compete in the market or make an adequate return on their investment.

The ACCC must address this problem now by learning from the 2012 DTCS FAD and engaging in a process to provide an accurate assessment of the efficient cost of supplying the DTCS.

2.3 The DTCS critical to encouraging regional investment

The inefficiently high price of the DTCS is the most critical access pricing issue currently before the ACCC for two reasons:

⁴ ACCC Final Access Determination for the Domestic Transmission Capacity Service, 2012, Explanatory Statement, p13.



- Economics of regional investment: Regional areas are often characterised by limited populations and large geographic areas. The former limits market size and the latter increases the cost of supply. For competition to occur in regional areas, it is imperative that access pricing for essential bottleneck infrastructure is set at efficient levels. Unfortunately, this has not been the case with the DTCS and high regulated prices have adversely influenced investment and the subsequent level of competitive service delivery in regional areas. There are tangible differences in the competitive Telco market outcomes between metropolitan and regional areas. The high price of the declared DTCS is not the only cause of these differences but there should be no doubt that it is one of the most significant barriers to regional investment.⁵
- Black Spots programme: the Australian Government has indicated its intention to undertake a \$100 million Mobile Black Spots programme, which will contribute funds to the capital cost of building mobile infrastructure (including incremental transmission infrastructure) to improve coverage and competition in regional areas. The DTCS impacts the recurring cost of operating sites in regional Australia, and if the DTCS is required to locations where competition is limited then the declared DTCS will have a strong bearing on the recurring cost of operating sites in these areas. Our analysis suggests, large reductions in the regulated pricing for the DTCS are warranted. Hence, the ACCC's decision on the declared DTCS will influence the set of locations where VHA considers it feasible to supply services. Moreover, the success of the Black Spots programme is likely to be substantially compromised unless transmission pricing is set at efficient levels.

We urge the ACCC to appropriately resource the DTCS review so that it is completed in a timely manner so as to provide the best prospect of a level playing field for responses to the Australian Government's Black Spots programme and foster timely and efficient regional investment decisions for fixed and mobile services.

⁵ Other factors include economies of scope between infrastructure required to deliver fixed and mobile services and inequitable access to spectrum (e.g. only 20% of the 1800 MHz band used by all MNOs in metropolitan areas to deliver 4G services has been allocated by the ACMA to deliver mobile services in regional areas).



3 Lessons from the 2012 DTCS FAD

There are several possible reasons why the 2012 FAD has not provided with an accurate reflection of the efficient, forward-looking cost of the DTCS now observable on competitive routes. These include:

 domestic benchmarking is inherently backward-looking rather than forward-looking, and the rate of technological progress was simply not considered in the 2012 FAD process. For example, the ACCC's data set did not reflect access seekers such as VHA migrating to new, more cost efficient technologies. As a result, disproportionate weight was ascribed to the numerous, but nonetheless, technically inefficient 2 Mbps service. [start c-i-c]

[end c-i-c] The inclusion of inefficient TDM-based technologies in the 2012 benchmarking may have led to further inaccuracies such as overstating the cost impacts from increasing capacity;

- it uses data points produced by pricing models of large suppliers of transmission services. As a consequence the data points may not be independent of each other as they could be driven by the same underlying pricing model, which means the data set contains less information than it appears. As the ACCC's consultants, Data Analysis Australia observed: "Independence is one of the underlying assumptions of regression analysis with a dataset being considered independent when each observation, or record, in the data set is not influenced by the remaining observations".⁶ Lack of independence may have led to further inaccuracies (e.g. potentially overstating the cost impacts from increasing distance). Moreover, given three major suppliers of the DTCS Telstra, Optus and TPG/PIPE/AAPT are vertically integrated, it is not clear that the underlying pricing models will reflect the behaviour normally observed in effectively competitive markets rather than the behaviour to be expected when a vertically integrated supplier constrains or increases the cost of supply of upstream inputs in order to preserve or enhance their downstream market share;
- the use of the mean price as a proxy for cost, which appears to have had the effect of grossly overstating the true cost of supply⁷ the use of the mean price is inherently erroneous as it does not take account of market frictions (e.g. long-term contracts and imperfect information) or differences in bargaining power (e.g. a supplier might price discriminate between different customers on a single route in such circumstances the average price will be higher than the efficient price paid the access seeker who is able to negotiate the best deal);
- the use of the mean price approach can only reflect costs if all of the markets are effectively competitive. Changes in the scope of the declaration, in particular the re-introduction of regulation in certain areas, suggests that this was not the case and that the domestic benchmarking approach included observations from markets that were not competitive;

⁶ Data Analysis Australia (2012), Updated pricing model for the Domestic Transmission Capacity Service, Report for the ACCC, June, p19.

the Australian Competition and Consumer Commission", 30 August 2013 at page 18



- the pricing in the data set did not take into account volume-based discounts which are highly prevalent in the transmission market; and
- the domestic benchmarking approach did not address the issue of self-supply. The largest customer by orders of magnitude, Telstra, is missing from the model's data set and the DTCS cost recovery by Telstra's fixed service and mobile retail divisions has simply not been addressed by the ACCC in its past regulatory price setting for the DTCS.

VHA's concerns are supported by Dr Bartels' Initial Report which considered the current regression model and drew the following conclusions:

(a) What considerations should be taken into account in building a regression model to calculate benchmark efficient prices for DTCS?

To ensure a future regression model credibly determines benchmark efficient prices, the following criteria must be met:

- 1 the prices used must be for services in competitive markets;
- 2 the regression model should include all factors that have a material impact on the prices;
- 3 there should be a sufficient amount of prices in the dataset used to produce precise estimates of the model's parameters;
- 4 the regression model should provide a close fit to the actual prices used in the model's estimation and
- 5 the model should pass a set of statistical diagnostic tests to ensure that it is well-specified.

(b) Are the findings contained in Data Analysis Australia Pty Ltd's report titled Domestic Transmission Capacity Service Price Benchmarking – Pricing Model Development: Consolidated Report (DAA Report) robust?

The regression model used by the ACCC in the 2012 DTCS was developed by Data Analysis Australia (DAA). Dr Bartels has identified significant flaws in the DAA Report which may help explain why the 2012 FAD has proven ineffective. Specifically, he found that *"the fit of the model to the data is so poor that the model cannot be regarded as a credible tool for benchmarking efficient prices"*. ⁸ This was because:

- 25% of actual prices are at least 25% below the predicted price;
- 5% of actual prices are at least 50% below the predicted price;
- 25% of actual prices are at least 30% above the predicted price; and
- 5% of actual prices are at least double the predicted price.

⁸ Dr Bartels' Initial Report at paragraph 13



Dr Bartels concluded that:

"the regression model as used by the ACCC does not produce credible benchmarks for efficient prices because: (i) it is possible that many of the prices used to estimate the model are not competitive prices, and (ii) the benchmark prices are set well above viable competitive prices on comparable routes. Since efficient prices are an important ingredient in promoting competition and efficient investment, my analysis indicates that the ACCC's regression benchmarking model does not achieve these core objectives"

Factors which may have contributed to inaccuracies in the 2012 FAD pricing are examined below.

3.1 Inefficient legacy technologies may have distorted benchmarks

A possible cause of the inaccuracies in the 2012 FAD pricing is that it may be heavily based upon services and technology that are outdated and inefficient. In particular, the 2012 FAD pricing included consideration of inefficient legacy technologies such as Time-Division Multiplexing (**TDM**) services.⁹

The FAD should promote the provision of the most efficient technology from the most efficient provider. The previous approach of considering all transmission services together (irrespective of the efficiency of the technology) may have unduly inflated regulated pricing. If the analysis includes legacy technology pricing then the pricing assessment will merely entrench the monopoly pricing of inefficient technology into forward-looking pricing.

VHA observes clear differences in the technical and cost efficiency of more recent transmission technologies. [start c-i-c]

•					
		[end c-i	-C]		

⁹ For the purposes of this paper, VHA has broadly categorised DTCS technologies as being either TDM or Ethernet. TDM services can been further classified into Plesiochronous Digital Hierarchy (**PDH**) and Synchronous Digital Hierarchy (**SDH**). TDM is a method of transmitting and receiving independent signals over a single transmission path by means of synchronized switches at each end of the transmission line so that each signal appears on the line only a fraction of time in an alternating pattern. TDM enabled the service providers to migrate from analog to digital on all their long distance trunks, and later to the local loops. TDM is used for high speed transmission and includes PDH and SDH. PDH is an old technology and was designed to transport large quantities of data over physical mediums such as copper and microwave. PDH works on lower data rates and is not entirely synchronous (i.e. not all clocks in the system are aligned). As such, SDH was development to replace PDH. SDH is completely synchronous and supports much larger data rates compared to PDH. SDH is typically provided over fibre or microwave mediums. VHA is willing to provide further explanations of the various technologies if the ACCC would find it helpful.

[start c-i-c]
[end c-i-c]
Legacy technologies such as TDM are generally purchased in lower capacities than newer Ethernet technologies, partly
because they exhibit different technical characteristics. For instance, Ethernet services offer more flexibility in the choice of canacity increments than legacy TDM services. TDM services tend to be acquired by VHA as 2 Mbps services (i.e.
E1s), or multiples thereof, or as 155 Mbps STM-1 TDM services. [start c-i-c]
[end c-i-c]

VHA and the bulk of the industry is switching from TDM to Ethernet services wherever possible and technology interfaces such as TDM are already rapidly on the decline. They are certainly a poor basis for forward-looking price setting. The inclusion of such inefficient technologies in the 2012 FAD pricing is a possible explanation for the inefficiency of the DTCS regulated price currently observed.



As set out above, legacy TDM technologies have become less relevant as they are more expensive and offer lower capacities than newer Ethernet based technologies. The ACCC's FAD should promote the provision of the most efficient technology from the most efficient provider. Prima facie, TDM technologies should not be included in the data set as to do so will run the risk of inflating regulated pricing and set inefficient build/buy signals for prospective suppliers of the DTCS.

3.2 Overstated impacts on pricing from increased capacity and distance may have inflated prices

Our analysis has found that the current regression model has overstated the impact of increases in capacity and distance on per unit costs of supply. As demonstrated in **Case Study 4** below, the 2012 FAD has vastly overestimated the effects of increase in capacity and distance on price compared to the pricing VHA is offered from some suppliers. [start c-i-c]

[end c-i-c] This directly conflicts with the

ACCC's objective to promote allocatively and dynamically efficient investment in infrastructure.







The ACCC must ensure the impact of capacity and distance are not overstated in the upcoming FAD pricing.

3.3 Not all unregulated DTCS routes are equally competitive

It is important to recognise (and uncontroversial) that non-monopoly markets exhibit different levels of competition. However, this is not reflected in the 2012 FAD.

For the purposes of this submission, VHA distinguishes between markets that are perfectly competitive, effectively competitive or imperfectly competitive.¹⁰ In a perfectly competitive market, every good is priced at the cost of producing the good and every end user will be willing to pay that price.¹¹

There are no routes in Australia where the DTCS is supplied in a perfectly competitive market.

In the ACCC's draft MTAS declaration decision in 2013, the ACCC looked at what is considered to be effective competition. It stated that effective competition:

- is more than the mere threat of competition—it requires that competitors be active in the market, holding a reasonably sustainable market position,
- requires that barriers to entry are sufficiently low and that any degree of market power will be competed away in the long run, so that any degree of market power is only transitory,
- requires that there be independent rivalry in all dimensions of price, product and service, and

¹⁰ Re Fortescue Metals Group Ltd (2010) 271 ALR 256

¹¹ Re Chime Communications Pty Ltd (No 2) (2009) 234 FLR 210 at para 32



 does not preclude one party holding a degree of market power from time to time, but that power should pose no significant risk to present and future competition.¹²

This is similar to the view expressed by the Australian Competition Tribunal: "the competitiveness of a market cannot be measured simply by the number of firms in the market, their market shares and the market concentration. That can only be the starting point of the analysis. A feature that is "equally important"... is the ease of market entry."¹³

As such, a distinction must be drawn between routes that are not declared under the ACCC's simple 'Telstra plus two' 'rule of thumb' and routes that are effectively competitive when taking into account relevant factors other than the number of competitors as set out above. Only the latter can legitimately be used in benchmarking prices for declared routes.

The ACCC should not assume that routes "the ACCC has assessed as competitive provide a reasonable indication of competitive pricing that should apply to non-competitive services."¹⁴ There are two reasons for this:

- 1 the ACCC cannot assume that *all* unregulated DTCS routes are effectively competitive the ACCC has determined whether or not to regulate particular transmission routes based on a 'rule of thumb' or proxy for competition, that is, 'Telstra plus two'. However, meeting this 'rule of thumb' does not ensure that a route will be perfectly, or even effectively, competitive and there are significant differences between the level of competition on various unregulated routes; and
- 2 for a number of reasons, even on effectively competitive routes, contracted pricing may be substantially above cost.

While a subset of these routes will no doubt exhibit the characteristics of an effectively competitive market, many others will not.

In fact, as even a cursory examination of the previous regression analysis shows, the unregulated transmission routes span a broad spectrum of competitiveness. Some routes are only just sufficiently competitive to be deregulated while others, such as inter-capital trunk routes, are effectively competitive. On the routes where levels of competition are marginal, significant differences in bargaining power still exist between access seekers and oligopoly service providers. This is exemplified in the dispersion of data points in the ACCC's 2012 FAD which indicates that some routes are 3 or 4 times cheaper or more efficient than others. As stated in Dr Bartels' Initial Report, there are large deviations between actual prices and predicted prices. One of the possible explanations for these deviations is that the assumption that "*the particular service is priced in a competitive market (i.e. an exempt route)*" is erroneous.¹⁵

There are a number of reasons why this may have occurred. They include:

1 **Oligopoly** – whilst these unregulated routes may be considered to be sufficiently competitive under the ACCC's Telstra plus two 'rule of thumb', many are also oligopolies which are far from a perfectly or effectively competitive environment. Significant differences in bargaining power still exist between access seekers and

¹² ACCC, "Domestic Mobile Terminating Access Service Declaration Inquiry - Draft Decision" 13 December 2013, at page 20

¹³ Re Chime Communications Pty Ltd (No 2) (2009) 234 FLR 210 at para 51

¹⁴ ACCC Discussion Paper at para 3.2

¹⁵ Dr Bartels' Initial Report, page 8



oligopoly service providers due to the lack of access provider choices available to access seekers. As such, prices by some access seekers may not reflect the efficient price due to their weaker bargaining power. What follows from this is that the ACCC must be extremely wary of adopting an 'average' approach in any regression analysis as it will not (and almost, by definition, cannot) promote the LTIE. An averaging approach will be allocatively and dynamically inefficient as it will reward inefficient providers and result in under-investment by acquirers. The most efficient price is the lower price, not the average of the lower and higher prices;

- Vertical integration many of the suppliers are not independent, potentially distorting their incentives to compete vigorously for business, and thus limiting the competitive constraints imposed by having multiple suppliers and increasing the potential for vertically integrated firms to prioritise their own demand over others. Vertical integration may have also removed some of the strategic incentive to compete with other providers for business which leads to behaviours such as providers withholding information that would be provided in an otherwise competitive environment. For instance, a lack of publicly available pricing information and confidentiality provisions prevent suppliers from observing their competitors' pricing causing a delay in the adjustment of pricing. VHA notes that some suppliers' focus on the strict confidentiality of information submitted to the ACCC confirms this point; and
- 3 Market friction significant market friction may prevent access seekers from achieving the same price as they would in a theoretical perfectly competitive market. For example, factors such as longer contract terms, information asymmetry (such as above) and/or the transaction costs associated with switching suppliers or renegotiating agreements may substantially delay the effects of competition being reflected in pricing for a given transmission route. The industry practice of bundling also results in a distortion of pricing that does not reflect a stand-alone competitive outcome. In his Initial Report, Dr Bartels stated that bundling of routes is a factor that is likely to have an impact on price as it "could be a mechanism by which a seller operating in several markets, with market power in some of those markets, can leverage that market power to charge non-competitive prices for services sold in the competitive markets"¹⁶.

It is critical that the ACCC ensures the methodology adopted for setting the new DTCS pricing is based on analysis efficient pricing from *effectively competitive* routes only.

3.4 The "averaging" paradigm

The ACCC's use of an average price as a proxy for cost in the 2012 FAD may be another source of the flaws in the current 2012 FAD price. The averaging approach may be effective in a scenario where existing prices were **all** effectively competitive and recovered no more than the costs of providing the service. However, for reasons including those set out at **section 3.3** above, this is not the case here. As such, adopting the averaging paradigm is likely to have inflated the 2012 FAD price and resulted in substantial over-recovery of costs in many instances.

Dr Bartels similarly observes in his Initial Report that price averaging is difficult to implement in practice as services are rarely exactly comparable. Therefore, it is desirable to make appropriate adjustments to the prices of the selected

¹⁶ Dr Bartels' Initial Report, page 9



services in competitive markets to account for any differences in the characteristics of the services, such as differences in speed, distance, and any other factors that vary between the services which may impact on their prices.¹⁷

The inadequacies of the ACCC's current approach are similarly apparent from the extent of the pricing differences between different service providers:

the 2012 FAD is significantly higher than competitive market pricing for Ethernet services [start c-i-c]
이 아이는 것 같은 것이 있는 것이 아이는 것이다. 이는 것이 아이들을 통하는 것이 가지 않는 것이 있는 것이 있다. 이는 것이 아이들을 것이 있다. 이는 것이 아이들을 가지 않는 것이 있다. 이는 가
[end c-i-c].

What this demonstrates is that, prima facie:

- all providers of the DTCS are not equally efficient and do not face equivalent competitive constraints; and/or
- there are a number of factors at play here which have a significant effect on pricing and which are not regulated by the ACCC's current regression model.

[start c-i-c]	
	[end c-i-c]

3.5 Use of volume-based rebates and other discounts

The failure to incorporate volume-based rebates into the data set for the 2012 FAD pricing has contributed to the overestimation of pricing on competitive routes.

[start c-i-c]				
		and the second second		
	<u>9</u>		and the second second	
			2 C. 10 10.	
				and the second second
TEL THREE BURGET IN . V		CONTRACTOR DE LA CONTRACTÓRIA DE LA CONTRACTICA DE LA CONTRACTÓRIA DE LA CONTRACTICA DE LA CONTRACTICA DE LA CONTRACTICA DE LA CONTRACTICACIÓN DE LA CONTRACTICA DE LA CONTRACTICACIÓN DE LA CONTRACTI	त्र ते लोग है। इन्द्रीय के बिल्का क	

¹⁷ Dr Bartels' Initial Report at page 4



volume-based rebates (and any other applicable discounts) into its pricing methodology for setting the new DTCS price.

VHA identified discounts to connections charges as an important pricing consideration for the DTCS FAD. In VHA's experience, connection costs for the DTCS are sometimes said to be recovered via explicit "connection charges". However, in VHA's experience agreements where the DTCS is acquired for a longer term are often priced so that the access provider recoups any costs associated with connection as part of their recurring charge for a service. That is, the access provider does not levy an explicit connection costs and recurring costs in their pricing structures. The ACCC must assess the impact that these types of pricing structures have on estimating the efficient cost of supply on a route.

3.6 Self-supply

The ACCC's approach to the DTCS must explicitly address the economic significance of Telstra's self-supply of the DTCS. A failure to do so is at the heart of the problem with the current regression model as there is a significant risk of Telstra over-recovering the cost of supplying the DTCS. It is crucial that the ACCC have regard to promoting competition in relevant markets by ensuring that there is a level competitive playing field for access to essential, 'bottleneck' DTCS infrastructure. Current regulation of the DTCS has not delivered this.

3.7 Access providers have bypassed regulation

The current FAD is has permitted access providers to design product offerings to bypass regulation. Telstra's MLLS is the primary means by which Telstra complies with its standard access obligations in respect of the DTCS. This is clear from the fact that many access seekers elect to acquire the MLLS in preference to Telstra's basic Data Carriage Service (**DCS**).



While the ACCC has made it clear that the MLLS clearly and unambiguously falls within the service description for the DTCS, the regulation has created uncertainty as to the application of the 2012 FAD pricing to the MLLS product. [start c-i-



It would be an entirely unsatisfactory outcome if the upcoming DTCS FAD continued to be framed in such a way as to permit Telstra to offer MLLS without price regulation or to leave the matter uncertain. For this reason, VHA submits that the ACCC must expressly address the question of managed services, and the MLLS in particular, in its FAD (if necessary,



by requiring that Telstra unbundle the pricing for the 'premium' aspects of the service). To the extent that there are differences, in terms of bundled 'add-ons', between a basic service and a managed service provided over the same infrastructure, there should be a transparent pricing approach that identifies the price for the base product and separate pricing for any additional 'managed' features. Otherwise, Telstra may seek to avoid the FAD entirely by asserting that the MLLS is not the 'declared service' in circumstances where both services are provided over the same underlying bottleneck infrastructure.

Not only is such regulation necessary to ensure that Telstra does not over-recover its cost of supply, it is necessary to ensure that Telstra will not, in the future, create 'new' product suites which are largely similar to declared products, but effectively immune from regulation.

3.8 Inadequacies in the FAD are being exploited





 ¹⁸ ACCC 2013, 'Publication of RKR data 2013', 2013 – ESAs with 2 or more fibre asset owners – September 2013, http://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/audit-of-the-infrastructure-record-keeping-rules/final-report, published 29 October.



[end c-i-c]

What this suggests is that it is the lack of competition (and here the incentive and ability to extract monopoly rents) that is associated with Telstra's zoning practices. Such practices create price discrimination between competitive and uncompetitive ESAs, and the 2012 FAD has been unsuccessful in constraining this behaviour. Such an outcome is directly contrary to the LTIE and VHA urges the ACCC to address this issue in the upcoming FAD by setting a forward-looking, cost-based pricing for the DTCS that reflects its supply from the most efficient provider using the most efficient technology.



4 A better approach to DTCS pricing

VHA welcomes the ACCC's acknowledgement that the current DTCS pricing model is no longer appropriate. However, to avoid a similar outcome for the current FAD, VHA strongly encourages the ACCC to consider using several pricing methodologies to ensure it sets regulated pricing for the DTCS that are more likely to be reflective of the costs of supply of the DTCS and more likely to promote the LTIE.

VHA considers that the flaws in the 2012 DTCS FAD regression model warrant the ACCC using a cost-based model – specifically, a 'Building Block Model' (**BBM**) – to anchor its pricing structure and ensure an efficient level of cost recovery on the declared DTCS. VHA does not consider a cost-based model should be used in isolation and accepts that there is merit in also proceeding with a regression model to inform the regulated pricing approach provided certain changes are made.

4.1 LTIE is paramount

As the ACCC is aware, its FAD decision making process must be guided by the overarching object of Part XIC of the CCA, promoting the LTIE (section 152AB). It is obliged to have regard to the matters set out in section 152BCA(1) of the CCA (the **statutory criteria**), which expressly include the LTIE. They also include the *legitimate* business interests of the access provider, the interests of persons who have a right to use the service, the direct costs of providing access and other matters. Individually and collectively, these matters are fundamental to all aspects of the ACCC's task and have significant implications for various aspects of the decision-making process.²⁰

A more detailed consideration of the relevant statutory criteria can be found at Annexure 3.

In order for the ACCC to give meaningful consideration to each of the statutory criteria,²¹ the ACCC must adopt a robust approach that will allow it to assess the likely effect of determining particular terms and conditions of access over the short, medium and longer term. The ACCC cannot appropriately weigh and balance the statutory criteria otherwise – a real and meaningful consideration of each of the statutory criteria cannot be achieved in the absence of proper data and reliable evidence on the impact of the FAD.

In making its FAD, the ACCC must consider the statutory criteria at each stage of the FAD process, as well as:

 principles of procedural fairness, in circumstances where there are significant information asymmetries and legitimate confidentiality considerations by relevant stakeholders to the review. We believe this requires that each stage of the process be conducted in a transparent manner with substantive stakeholder input;

²⁰ What emerges strongly from the consideration of the statutory criteria is that the ACCC's regulatory determinations must not enable an access provider to implement service charges which are higher than those it would be able to charge if the market were competitive. Specifically, an FAD must not enable an access provider to obtain monopoly rents, profit from inefficient investment or recover more than a reasonable proportion of the cost of any enhancements to its network.

²¹ East Australian Pipeline Pty Ltd v Australian Competition and Consumer Commission (2007) 233 CLR 229 at [52]; Telstra Corp Ltd v Australian Competition and Consumer Commission FCA 1758



- staying actively involved in each stage of the process. The ACCC should not simply appoint an expert to formulate and implement a pricing model, it must ensure that technical aspects of the model are well understood by both industry and the ACCC, and that the outcomes from the model are implemented in a manner that promotes the LTIE; and
- appropriately resourcing itself for the DTCS FAD. VHA is firmly of the view that the ACCC should not impose constraints on its use of external resources nor use these constraints to inform its approach to regulatory price setting. Each of the pricing approaches contemplated by the ACCC will require significant (and most likely external) expertise. In the case of a building block model, the ACCC would need to engage an expert or experts to estimate the regulatory asset base, determine efficient operating costs and potentially forecast demand; in the case of domestic benchmarking the ACCC will require advanced statistical expertise capable of engaging with the industry-hired experts over a sustained period.

VHA acknowledges that the ACCC's task is a complex one and that there is a real risk of regulatory error if all due care is not taken in setting the new DTCS FAD price. It is that ever-present risk of regulatory error that means the ACCC must take a prudent approach and ensure the *accuracy* of its regulatory price setting, not simply adopt a *conservative* approach that delivers inefficiently high prices and is detrimental to the LTIE.

4.2 A cost model is necessary

To address the errors in the current DTCS pricing, and to avoid those errors in the future, VHA strongly encourages the ACCC to consider a DTCS pricing methodology which is more likely to be cost-reflective. Indeed, ACCC's own expert evidence previously pointed to the desirability of developing a cost model for the DTCS.

The Discussion Paper refers to the Frontier Economics report on the economics of transmission capacity services commissioned by the ACCC in 2009 (**Frontier Report**). In the Discussion Paper, the ACCC stated that:

"Frontier considered that a cost-based approach to pricing transmission was desirable, but this would likely be a costly solution to deal with very complex networks and carried a high risk of regulatory error.... In relation to monopoly routes, Frontier concluded that there is no costing approach that is more appropriate than the others in all circumstances" (emphasis added).

VHA considers that the ACCC's characterisation of the Frontier Report to be inaccurate.

Frontier expressed the view²² that some form of cost-based pricing is to be preferred although it acknowledged that it may be a costly solution and, given the complexity of transmission networks, there was a reasonably high risk of setting the wrong access prices. It then recommended that in relation to monopoly routes, "*there is no costing approach that is always more appropriate than the others in all circumstances*"²³ and summarised the relevant factors and merits of each

²² Frontier Economics, '*Report On The Economics Of Transmission Capacity Services* - commissioned by the ACCC', 2009 at page 62

²³ Frontier Economics, '*Report On The Economics Of Transmission Capacity Services* - commissioned by the ACCC', 2009 at page 69



of the four cost-based models set out in its report²⁴ From this context, it is clear that Frontier's statement that there is no preferred costing approach was in **reference to cost-based models only**.

Regulated pricing of the DTCS that genuinely reflects the efficient costs of supply is fundamental to ensuring that the LTIE is promoted in otherwise uncompetitive markets. This requires the ACCC to accurately measure the costs of an efficient operator providing the DTCS across the full range of markets and routes on which it is supplied. This model should also address the issue of self-supply and preventing over-recovery of costs on already sunk or depreciated assets (which is discussed further below). If the pricing for the DTCS in the upcoming FAD does not correct the market failures already observed and documented by VHA in its previous submissions, the benefits of declaration that would otherwise accrue will be lost and the ACCC's decision will not promote the LTIE.

VHA considers that the ACCC should adopt a cost-based model to anchor pricing of the DTCS and to reduce the potential for cost over-recovery or strategic pricing by vertically-integrated operators. VHA considers the BBM the most appropriate cost-based pricing methodology to assist the ACCC in making a decision that will promote the LTIE because it:

- is more likely than a stand-alone benchmarking exercise to produce a result that reflects the direct costs of providing access to the service in accordance with section 152BCA(1)(d);
- is consistent with the ACCC's approach to pricing of other declared services (including other fixed line services);
- allows the ACCC to separately consider the four critical elements in regulatory price setting: the asset base, operating costs, usage and pricing this will help to overcome some of the information asymmetry problems that exist in terms of DTCS pricing (domestic benchmarking is only suitable for assisting with the fourth element that is, setting efficient pricing for declared services);
- it permits the aggregation of the asset base and operating costs across the set of regulated services (rather than on a service-by-service or route-by-route basis). This is likely to substantially reduce the risk of regulatory error in determining the costs of supply across all regulated services;
- includes usage forecasts which permit an assessment of Telstra's level of self-supply, thereby directly addressing self-supply in a way that benchmarking cannot; and
- contains a forward looking component which is logical for setting future prices and reflects asset depreciation in a way that benchmarking cannot.

4.3 Delivering an improved regression model

Should the ACCC proceed with a regression model to inform the regulated pricing approach, it is critical that it addresses the deficiencies in the current FAD and has included recommendations for addressing each of those deficiencies identified in the current FAD in its discussion in **section 3** above.

²⁴ Frontier Economics, 'Report On The Economics Of Transmission Capacity Services - commissioned by the ACCC', 2009 at page 70



As well as addressing the flaws in the current regression model, the ACCC should also use the new FAD as an opportunity to set forward looking pricing, select relevant variables for the regression model and address pricing for services between Tasmania and mainland Australia. This section sets out VHA's recommendations on each of these points.

If, as VHA proposes, the ACCC decides to develop a cost model, the data, selection process will, to some extent, depend on the type of model. If the ACCC decides to adopt a substantially revised version of the regression model, the data collation described in **section 4.3.2** below must occur.

This view is supported by Dr Bartels as stated in his Supplementary Report which specifically states that:

- the preferred approach in relation to data collection by the ACCC is for the ACCC to 'cast its net wide', both in terms of the categories of variables as well as the size of the data set i.e. this should be a census rather than a sampling exercise;
- any variable which the ACCC or stakeholders consider to be potentially relevant to pricing should be captured in the data set;
- once the initial data has been analysed, the ACCC should provide for an iterative process which allows experts to ask follow up questions and, if necessary, request further data e.g. to determine the reason behind any outliers; and
- to the extent that the new regression model produces a wide variation from the regression line similar to the current one, the ACCC should consider a frontier production approach rather than a mean approach.

Ultimately, the strength of the new regression model will be heavily influenced by the degree of stakeholder consultation and engagement. VHA welcomes the ACCC's approach to stakeholder engagement to date, and encourages the ACCC to continue to work closely with industry in the upcoming months. VHA's specific recommendations for dealing with some of the challenges arising from stakeholder engagement are also included in this section.

4.3.1 Forward-looking pricing and duration of FAD

VHA would welcome the adoption of forward looking pricing that reflects expected changes to pricing over that time period. There are significant costs involved in having to frequently re-negotiate DTCS prices. [start c-i-c]





VHA considers that a time period of 3-5 years would be appropriate for the next FAD. The final point on that continuum should depend on the extent to which it is capable of promoting increased efficiency in DTCS service delivery over time while minimising the risk of regulatory error.²⁵

Provided that the 2015 pricing model adequately incorporates all relevant variables and adopts an incentive-based approach to setting prices, going forward, a review of DTCS pricing need only take place once every three to five years. Should specific issues arise, the ACCC should address them at that stage, either via a variation to the FAD or more likely, a Binding Rule of Conduct. The FAD would include a regulatory review clause which would allow for charges for the declared services to reflect automatic re-pricing. This approach would help address the existing market friction which prevents access seekers from seeking the most efficient price at sufficiently regular intervals.

4.3.2 Relevant variables for regression model

The ACCC has asked for submissions on whether a whole range of potential factors (such as technology interface, protection, quality of service, route category, distance, capacity, contract length, discounts, demand and so on) should be captured as variables for the purposes of any upcoming regression analysis. Intuitively, and almost without exception, VHA's response is that information should be collected on **all** the factors mentioned by the ACCC in section 3.2 of the Discussion Paper. This is also recommended by Dr Bartels in his Supplementary Report.

In VHA's view, developing a new regression model should be a two-stage process:

- 1 collate data for all factors that might affect pricing; and
- 2 after a thorough analysis of that data, determine which of the factors **actually** affect pricing and should be included in the model as variables.

It would be unsafe for the ACCC to combine these two steps. The ACCC should not determine which factors should be included as variables without empirical evidence from analysis of a full dataset of factors that *may* be relevant.

To that end, VHA urges the ACCC to collect data on **all** of the factors listed below and any other factors that the ACCC or parties might consider to have a **potential** impact on pricing. Once data is collated, the ACCC can then, with the assistance of experts, determine which of the factors should be included as a variable in the regression model.

Technology interface

In the reasons set out above, it will likely be necessary to exclude TDM services from the final data set as to do so otherwise will run the risk of inflating regulated pricing and setting inefficient build/buy signals for prospective acquirers of the DTCS. It is inappropriate to include legacy technology pricing in the development of forward-looking efficient technology pricing.

²⁵ The risk of regulatory error is a reason for *precision* in the ACCC's approach to avoid cost over- or under-recovery; the ACCC should not regard the risk of regulatory error as providing a reason for *conservatism* in regulatory price setting.



In addition, for the reasons set out above, the ACCC should obtain as broad a data set as possible both in terms of the categories of variables and the completeness of the data points collected. As such, if the ACCC has identified technology interfaces as having a potential impact on pricing, the ACCC should include this variable in its data collection exercise so that it and interested stakeholders are better able to determine the actual impact of different technology interfaces. VHA recommends the ACCC analyse whether TDM services for the market provide it with meaningful information on the efficient cost of supplying the DTCS. If its findings are consistent with VHA's observations, VHA recommends the ACCC ensure TDM data points do not distort its view of the efficient cost of supplying the service.

Route Category and Distance

Intuitively, it is likely that route categories will continue to be relevant for the next DTCS FAD to the extent that the pricing outputs it generates are distance based. VHA also considers that the ACCC should continue to use radial distance between A-end and B-end locations as a key variable in its pricing construct. Service providers also take different approaches to pricing on metro and regional routes. Generally, distance is not a pricing factor for metro routes and does not affect DTCS charges (See **Case Study 4** above). This may make it necessary to have two different models for metro and regional routes.

A distance based approach is generally the most simple and transparent method of determining price. As such, a purely route category approach (without zoning) is to be preferred as it more accurately reflects the distance of the services and therefore actual costs.

[start c-i-c]	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	[end c-i-c]

Capacity

Whilst, historically, smaller capacity services were more common, the industry has now moved to higher capacity services given their inherent scale efficiencies and the rapid increase in demand for data in downstream markets. The median capacity ordered by VHA across our acquired Ethernet services is now [start c-i-c]

Prima facie, small capacity (e.g. 2Mbps) services need to be treated with great care within the data set. The 2 Mbps are associated with TDM technology and while these legacy services are still in use, VHA and other carriers are migrating to more technically and cost efficient technologies. Over-representation of inefficient 2 Mbps services within the data set could skew outputs and undermine the efficacy of the regression model for higher capacity services. This issue should be further examined and addressed following detailed analysis of the ACCC's dataset. In any event, the ACCC must ensure that capacity is captured as an explanatory variable and sufficient data on the high capacity services is obtained. This will permit analysis of the appropriate data increments. A failure to do so otherwise would result in a potentially thin data set for high capacity services. It would be unacceptable for the ACCC to inadequately account for higher capacity services due to insufficient data.



Contract length and terms

It is important to distinguish between 'contract term' and 'service term.' It is common for the same contract to be used for several services with varying service terms. VHA presumes that what is of most significance here is fixed service terms.

VHA consider it to be premature for the ACCC to consider what the appropriate contract term should be. It should only make that decision once it has had an opportunity to adequately examine the full dataset. That said, service terms are likely to be an area the regression analysis should focus on given that, in VHA's experience, they are invariably a significant determinant of average price. Ultimately, the contract periods in the FAD should also reflect commercial reality. In VHA's experience contract terms typically vary from [start c-i-c] [main [end c-i-c] years with major suppliers, and the terms for services that sit under these contracts vary from [start c-i-c] [main [end c-i-c] years. These long contract and service terms should be regarded by the ACCC as a major cause of market friction though they may allow the ACCC to observe pricing trends through time.

In a competitive market, there should not be barriers to entry into and exit from a service contract, allowing access seekers to freely pursue the most efficient price without penalty. As such, the FAD should also allow for a flexible or non-fixed contract term or, in the alternative, no fee or penalty for early termination. This would minimise the risk of access seekers being locked into long-term contracts that are now significantly over-priced due to changing technologies and market advancements.

Discounts

VHA considers that all identifiable discounts should be included in the 2015 FAD dataset. This includes discounts contributable to:

- bundling of DTCS;
- the term of the contract (to the extent not already captured above);
- volume (including volume rebates and volume discounts); and
- general rebates or discounts not linked to a specific service or appear in the specific service terms.

4.3.3 Prices for services between the mainland and Tasmania

The 40% uplift factor for services between the mainland and Tasmania was asserted to be accurate in 2012. The ACCC should undertake an analysis with updated data to determine the current level of up lift. However, it should be cautious in interpreting this result. There are typically two major suppliers of these services – Telstra and Basslink – and there are differences in the product features these suppliers are capable of offering. This means pricing for services between the mainland and Tasmania may not reflect of competitive market outcomes. For these types of transmission services where there are unique features, the ACCC should consider an entirely different pricing approach (e.g. a small cost model) as it has no means of deriving a comparable domestic benchmark.



4.3.4 Stakeholder engagement

If the ACCC adopts a regression model for benchmarking DTCS prices, significant reform of the current regression model and the approach to its construction is essential. As the ACCC recognises, this can only occur with a far greater level of transparency and stakeholder consultation, including with economic experts, than occurred in the 2012 FAD process. As stated by Dr Bartels in his Supplementary Report, "*enabling experts with different experiences and insights to analyse, and exchange views on, any complex dataset and modelling task is likely to result in improved models...⁷²⁶*

In order for effective industry engagement to occur, the full ACCC dataset ought to be provided to stakeholders, their independent experts and external lawyers. This would allow for better transparency and enable industry participants to test their assumptions against the raw data. It is only with full access to the data set that stakeholders and their experts will be able to provide robust, evidence-based recommendations about the operation of any new regression model.

That said, VHA recognises that there will be sensitivities associated with making the full data set available in this way. However, any concerns could be reasonably addressed by:

- confining access to the most commercially sensitive information to external experts and external legal advisors;
- confining access to other confidential information and aggregated forms of commercially sensitive information to key staff in each stakeholder (in VHA's case this would include the in-house regulatory and legal teams as well as some staff from the finance area that support the regulatory function)external experts and external legal advisors;
- ensuring that any person who has access to the data set has executed a confidentiality undertaking imposing appropriate restrictions on use and disclosure; and
- the ACCC engaging an independent technical consultant to advise on the features of different suppliers transmission products and on defining explanatory variables to help compare and contrast features across suppliers' service offerings.

²⁶ Dr Bartels' Supplementary Report at page 2



5 Price and non-price terms are linked

The ACCC's separate consideration of "primary" prices, "supplementary" prices and non-price terms, while potentially useful in the early stages of the FAD process, is no longer appropriate. The DTCS FAD must be considered holistically to ensure it properly addresses areas where access providers can potentially generate economic rents and over-recover costs.

Both the price and non-price terms of supply of the DTCS present an opportunity for access providers to exercise their market power to the detriment of access seekers and the LTIE. Both the price and non-price terms of supply must be considered holistically in order to address this. Non-price terms often have a real impact on the value of a service to access seekers and the access provider's cost of providing a service. For example, contractual terms in relation to factors such as protection and quality of service may directly influence price. The contractual remedies access providers are subject to for service failures and delays are also relevant to the access provider's costs of providing the service. Contractual terms requiring immediate notifications and speedy rectifications of faults require more access provider resources to be allocated to the service, and therefore increase the cost of supply.

As VHA stated in its submission on non-price terms and conditions and supplementary prices, if the ACCC maintains its distinction between "primary" prices and "supplementary" prices, it risks embedding pricing structures that are to the detriment of competition and the LTIE. The distinction between two types of charges is arbitrary, does not reflect industry practice and is at odds with the ACCC's task of determining charges that allow an access provider to recover its costs of supply the declared services **as a whole**.

In the next stage of its review, the ACCC should consolidate its consideration of "primary" price, "supplementary" price and non-price terms and explicitly link both pricing structures to the efficient cost of supplying the declared services.



6 Conclusion

The 2012 DTCS FAD has been ineffective in constraining Telstra's monopoly power, particularly in regional and remote areas where its monopoly remains entrenched. That much is clear from the evidence VHA has presented in this submission. As a result, it has, by definition, not promoted the LTIE which is specifically directed at creating the right conditions for competition by ensuring that access seekers can efficiently invest and compete in relevant downstream markets.

This has occurred because of fundamental flaws with the 2012 FAD pricing and the regression model that it was based upon. These flaws have been addressed at length in this submission, including through the views expressed by Dr. Robert Bartels, an independent expert econometrician.

The current FAD process now presents the ACCC with an ideal opportunity to conclusively address these issues and make an FAD that promotes the LTIE. We are encouraged by the actions the ACCC have taken in this direction (including in Discussion Paper) however there remains a long way to go. For the sake of end-users, particularly those in regional Australia, it is imperative the ACCC and industry tackle the significant challenges ahead of it in setting economically efficient price and non-price terms for the next DTCS FAD.



Annexure 1 – Dr. Bartel's Initial Report



Review of Regression Modelling for DTCS FAD

by

Professor Robert Bartels

A REPORT PREPARED FOR CORRS CHAMBERS WESTGARTH

March 2014

© Frontier Economics Pty. Ltd., Australia.

Contents

Review of Regression Modelling for DTCS FAD

1	Introduction	3
2	Considerations in building a regression model to c benchmark prices	alculate 4
3	The robustness of the findings in Data Analysis Australia's report6	
4	Does the ACCC's regression model achieve the objectives of promoting competition and investment?	ne core efficient 9
Appendix A: Qualifications 11		
Appendix B: Documents consulted 13		13
Appendix C: Instructions 14		

1 Introduction

- 1 My name is Robert Henry Bartels. I was a full-time academic econometrician and statistician at the University of Sydney from 1975 until August 2006 when I retired from my full-time position as Professor of Business Statistics in the Faculty of Economics and Business. Upon retirement from my full-time academic position I was awarded the title Emeritus Professor of the University of Sydney. Since retiring as a full-time academic, I have worked as a Consultant at Frontier Economics Pty Ltd (Frontier), an economics consultancy based in Melbourne and Sydney.
- 2 This report has been prepared at the request of Corrs Chambers Westgarth, acting on behalf of Vodafone Hutchison Australia Pty Ltd (**Vodafone**). As part of my Terms of Engagement with Corrs Chambers Westgarth, I have been provided with a copy of the Federal Court of Australia expert witness practice note dated 4 June 2013. This report is prepared in accordance with that practice note.
- 3 I have been asked to review the linear regression model used by the Australian Competition and Consumer Commission (ACCC) in its 2012 Domestic Transmission Capacity Service (DTCS) final access determination (FAD) and the application of the model to calculate efficient prices for the DTCS. A copy of my instructions is attached at Appendix C.
- 4 The questions I have been asked to consider fall under three broad headings:
 - a) What considerations should be taken into account in building a regression model to calculate benchmark efficient prices for DTCS?
 - b) Are the findings contained in Data Analysis Australia Pty Ltd's report titled Domestic Transmission Capacity Service Price Benchmarking – Pricing Model Development: Consolidated Report (DAA Report) robust?
 - c) Does the regression model used by the ACCC in the 2012 DTCS FAD achieve the ACCC's core statutory objectives, such as promoting competition, and the efficient use of, and investment in, infrastructure?

I address these three issues in the following three sections.

In writing this report, the only information available to me on the development of the ACCC's regression model for benchmarking efficient prices is the information contained in the DAA Report. I have not had access to the raw data used to develop the model. This has considerably restricted my ability to offer suggestions on how some of the concerns I raise in this report might be addressed. I would urge the ACCC to consider ways in which the raw data might be made available more widely to stakeholders' expert advisers, either in deidentified form, or in a secure data room environment. In my experience, this could be of considerable benefit to the future development of a benchmarking model for efficient prices.

2 Considerations in building a regression model to calculate benchmark prices

- In determining the price of a service in an uncompetitive market it is common to use as a reference point a benchmark efficient price based on the prices of a set of comparable services in competitive markets.
- 7 One way of calculating a benchmark efficient price is an approach called price averaging. In price averaging, the prices of the set of selected comparable services in competitive markets are averaged, and this average price is then used as the point of reference for setting the price of the non-competitive service.
- In practice, services are rarely exactly comparable. It is therefore desirable to make appropriate adjustments to the prices of the selected services in competitive markets to account for any differences in the characteristics of the services, such as differences in speed, distance, and any other factors that vary between the services which may impact on their prices. One approach to doing this is to construct a regression model to determine the benchmark efficient price.

Considerations in building a regression model to calculate benchmark prices

9 A regression benchmarking model posits a mathematical relationship between the prices of a set of services in competitive markets and the factors that have an influence on the level of the prices. In principle, if the regression benchmarking model is an accurate representation of the way prices of services in competitive markets are determined, then, by substituting the characteristics of the service of interest in the non-competitive market into the right hand side of the mathematical relationship, a benchmark efficient price can be calculated. However, in order for a regression benchmarking model to be a credible tool in determining benchmark efficient prices in practice, it is essential that the regression benchmarking model is indeed an accurate representation of the way prices of services in competitive markets are determined.

To ensure that a regression model is a credible tool for determining benchmark efficient prices, a number of criteria must be met, the most important being:

- The prices used to estimate the regression model must be for services in a) competitive markets
- b) The regression model should include all factors that have a material impact on the prices
- There should be enough prices in the dataset used to estimate the c) regression model to produce precise estimates of the model's parameters
- The regression model should provide a close fit to the actual prices used d) in the model's estimation; and
- The model should pass a set of statistical diagnostic tests to ensure that e) it is well-specified.
- In the next section I consider whether the regression model used by the ACCC for benchmarking prices in the 2012 DTCS FAD meets these criteria.

10

11

3 The robustness of the findings in Data Analysis Australia's report

- 12 The regression model adopted by the ACCC to benchmark efficient prices in the 2012 DTCS FAD was developed by Data Analysis Australia (DAA). Details of the various stages in the development of the model are provided in the DAA Report. The model's specification and estimation results are presented in section 4.2 of the DAA Report, sub-report ACCC/2. Summary statistics of the dataset used to estimate the model are provided in Appendix A of DAA Report, subreport ACCC/2.
- I have examined the material in the DAA Report to assess to what extent the model meets the five conditions listed in paragraph 10 that a regression model should meet in order to be a credible tool for benchmarking efficient prices. Of these five criteria the one that is most obviously violated is criterion d), namely, that the model should provide a close fit to the data. In my view, the fit of the model to the data is so poor that the model cannot be regarded as a credible tool for benchmarking efficient prices. In the following paragraphs I discuss my reasons for making this assessment.
- The statistical measure most commonly used to assess how well a model fits the data used to estimate the model is the so-called adjusted R-squared measure. The adjusted R-squared for the model used by the ACCC in the 2012 DTCS FAD is 84.2% (DAA Report, sub-report ACCC/2 Table 5). For cross-sectional data, the type of data used in this case, an adjusted R-squared of 84.2% would generally be regarded as a satisfactory fit to the data. However, most of the contribution to this value for the adjusted R-squared comes from the fact that the services included in the estimation dataset cover vast differences in terms of speed and distance, with speeds ranging from 2 to 10,000 Mbits/sec and distances from 0.08 to 3,611 km. (DAA Report, sub-report ACCC/2 p.20). The model is quite good at explaining the difference in average prices for services covering a distance of 0.08 km compared to services covering 3,611 km, and for services at

The robustness of the findings in Data Analysis Australia's report

a speed of 2 Mbits/sec compared to 10,000 Mbits/sec. However, when the model is used to determine benchmark efficient prices, the relevant question is how well the model fits the data in a narrow window, close to the distance, speed and other characteristics of the service in the non-competitive market whose price is to be determined.

- A measure of how well the model fits the data within a narrow window of distances, speeds, and other characteristics is the residual standard error. Table 5 of DAA Report sub-report ACCC/2 shows that the value of the residual standard error is 0.4407. Using the residual standard error it is possible to calculate, approximately, how much variation there is in actual prices around the benchmark efficient prices determined by the model. DAA has undertaken such calculations to obtain the prediction intervals shown in Table 9 of DAA Report sub-report ACCC/2.
- I have used the same method and assumptions to gain an appreciation of how well the model fits the data within a narrow window of service characteristics. Using this approach, I estimate that 25% of actual prices are at least 25% below the predicted price, and 5% of actual prices are at least 50% below the predicted price. Further, I estimate that 25% of actual prices are at least 30% above the predicted price and 5% of actual prices are at least double the predicted price. We can also gain an idea of the model's fit to actual prices by inspecting the 'Residuals vs Fitted' graph in Figure 5 of DAA Report sub-report ACCC/2. This graph shows a considerable number of points with residuals exceeding +2 or less than -2 on the log scale. These actual prices are at least seven times as large as the predicted price on the high side, or less than 1/7th of the predicted price on the low side. It would be stretching the meaning of 'close fit to the data' to interpret the above results as being a close fit.
- 17 Two possible explanations for the large deviations between actual prices and predicted prices are that: (i) many prices in the dataset used to estimate the model are not actually competitive prices, and (ii) there are important factors in the

The robustness of the findings in Data Analysis Australia's report

determination of prices that are not captured by the model. I discuss these possible explanations in the following paragraphs.

18 With respect to the first issue, the prices used by DAA in the estimation of the model are prices on routes that have been declared exempt from access price regulation by the ACCC. DAA relies on "the assumption that the particular service is priced in a competitive market (i.e. an exempt route)".¹ However, prices that have been declared exempt by the ACCC may not qualify as competitive prices on the basis of economic theory. One way of gaining some insight into the relative competitiveness of different prices in the dataset would be to include in the regression model a measure of the actual degree of competition on a route, such as the number of providers on a particular route,² or the presence or absence of particular providers on the route.

- 19 In regard to the second issue, DAA recognises that the variation in prices is due to missing factors in the model - "(T)he prediction intervals reflect the variation in the market's prices that cannot be explained by the service variables provided in the DTCS dataset".³ However, DAA does not comment on the fact that the variation in prices that cannot be explained by the service variables in the model is extremely large, as I have shown in paragraph 16. Clearly, at least some of the factors involved in determining prices, that are not included in the DTCS dataset used by DAA, have a material impact on the prices.
- 20 One of those factors is likely to be a measure of the degree of competition on a route, as mentioned in paragraph 18. Another factor is likely to be the time at which the prices are determined. It is likely that prices of DTCSs change over time. Not accounting for the dates at which prices are determined introduces not

The robustness of the findings in Data Analysis Australia's report

DAA Report sub-report ACCC/2, p.19.

² This has also been suggested by Professor Breusch, "Review of Benchmarking Activity: Domestic Transmission Capacity Service", para. 12.6. However, I do not agree with Professor Breusch that a model that includes such a measure can be described as "more complicated". It only adds one more variable to the model.

³ DAA Report sub-report ACCC/2, p.19.

only variability into the prices, but could potentially bias the estimates of the key parameters in the model, namely, the elasticities with respect to distance and speed.

21

Other excluded factors that are likely to have an impact on prices are features of contracts, such as the length of a contract, and the bundling of routes. The length of a contract incorporates decisions about risk sharing. Bundling could be a mechanism by which a seller operating in several markets, with market power in some of those markets, can leverage that market power to charge noncompetitive prices for services sold in the competitive markets. A variable for the length of a contract, and an indicator variable for whether or not a service is bundled, could be included in the model. Including these additional variables in the model would not make the model any more difficult to estimate.

Does the ACCC's regression model achieve Δ the core objectives of promoting competition and efficient investment?

- The setting of efficient prices on routes that are not competitive is an important 22 ingredient in promoting competition and efficient investment in the provision of DTCSs. In paragraph 16 I have shown that the actual prices used in estimating the regression model adopted by the ACCC to set benchmark efficient prices in the 2012 DTCS FAD show extremely large variation above and below the benchmark efficient prices determined by the model. It is difficult to think of an explanation that makes these results consistent with competitive pricing. This casts serious doubt on the validity of the benchmarking exercise.
- I also question whether the mean prices predicted by the model are the appropriate prices to use as benchmarks. I have estimated that 25% of actual prices are at least 25% below the benchmark prices determined by the model. Since the dataset used in the estimation of the model contains prices for more

Does the ACCC's regression model achieve the core objectives of promoting competition and efficient investment?

23

than 4,000 services, this suggests that about 1,000 of these services are priced at least 25% below the predicted price. On the assumption that a significant proportion of these approximately 1,000 services are viable, setting prices for declared routes at the benchmark prices determined by the model is equivalent to setting prices at 1/3rd above viable prices on comparable routes.

24

On the basis of the points discussed in the preceding two paragraphs, I conclude that the regression model as used by the ACCC does not produce credible benchmarks for efficient prices because: (i) it is possible that many of the prices used to estimate the model are not competitive prices, and (ii) the benchmark prices are set well above viable competitive prices on comparable routes. Since efficient prices are an important ingredient in promoting competition and efficient investment, my analysis indicates that the ACCC's regression benchmarking model does not achieve these core objectives.

Does the ACCC's regression model achieve the core objectives of promoting competition and efficient investment?

Appendix A: Qualifications

- 25 My full name is Robert Henry Bartels.
- I work as a Consultant at Frontier Economics Pty Ltd (Frontier), an economics consultancy based in Melbourne and Sydney and Brisbane. Frontier was founded in 1999 and specialises in applied microeconomic analysis, including industry regulation, institutional restructuring and reform, competition policy and litigation support. Frontier currently employs around 28 employees in Australia.
- I hold a Bachelor of Arts with First Class Honours and a University Medal in Mathematical Statistics from the University of Sydney, which I was awarded in 1969, and a Doctorate of Philosophy in Economic Statistics, also from the University of Sydney, which I was awarded in 1973.
- Prior to joining Frontier, I was a full-time academic at the University of Sydney from 1975 until 2006. For various periods at the University of Sydney, I was Head of the Department of Econometrics, Head of the School of Business, and Head of the School of Economics and Political Science. I retired from my position as Professor of Econometrics and Business Statistics at the University in mid-2006 and joined Frontier as an employee. Upon my retirement from my full-time academic position, I was awarded the title of Emeritus Professor of the University of Sydney.
- I have authored or co-authored 36 academic research papers published in refereed academic journals and edited books, including sole-authored papers in top tier international journals such as the *Journal of the American Statistical Association*, the *Review of Economics and Statistics*, and the *Journal of Econometrics*. I have also authored or co-authored 28 other published works, such as monographs, papers in conference proceedings and book reviews. In recognition of my contributions to the statistical literature I have been elected a Member of the International Statistical Institute.

I have served on the editorial boards of the international journals *Statistical Papers* and *Energy Economics*, and I currently serve on the editorial board of the international journal *Utilities Policy*.

I have particular expertise in the econometric and statistical modelling and analysis of economic and business data. Examples of recent experience in a regulatory context include undertaking peer reviews, and/or advising on the development of econometric models for Australia Post, the Commonwealth Bank of Australia, the Australian Energy Market Operator (AEMO), the Australian Communications and Media Authority (ACMA) as well as a number of electricity distribution business in Australia and New Zealand. I have also been involved in large statistical modelling exercises as an expert witness, for example, in a class action against the alleged cardboard cartel (on behalf of Visy), and litigation on royalties for the use of music in fitness centres (on behalf of the Phonographic Performance Company of Australia (PPCA)).Currently, I lead the team undertaking the statistical analysis of the customer electricity load data collected in the Smart Grid Smart City project, a large trial of smart meters supported by the Federal Government with a \$A100 million contribution.

Appendix A: Qualifications

30

31

Appendix B: Documents consulted

- 1. Australian Competition and Consumer Commission, Final Access Determination No. 1 of 2012 (DTCS).
- 2. Australian Competition and Consumer Commission, Final Access Determination for the Domestic Transmission Capacity Service: Explanatory Statement, June 2012.
- 3. Data Analysis Australia, Domestic Transmission Capacity Service Benchmarking Pricing Model Development: Consolidated Report, June 2012.
- 4. Breusch, Trevor, Review of Benchmarking Activity: Domestic Transmission Capacity Service, August 2011.
- 5. Breusch, Trevor, Observations on: 'Domestic Transmission Capacity Service (DTCS): Draft regression model for consideration in the public inquiry into a final access determination for the DTCS, Australian Competition and Consumer Commission, July 2011", August 2011.
- 6. Breusch, Trevor, Report on: ACCC's Draft FAD for the DTCS (December 2011) and the associated modelling by DAA (November 2011), February 2012.
- 7. Breusch, Trevor, Review of: Proposal for a Price Updating Mechanism in the DTCS, April 2012.

Appendix C: Instructions

Bob

We refer to our letter of instructions dated 4 February 2014 (Letter of Instructions) and our subsequent meetings with you.

As discussed, we would like to you review the linear regression model used by the Australian Competition and Consumer Commission (ACCC) in its 2012 Domestic Transmission Capacity Service (DTCS) final access determination (FAD) and prepare a brief report which addresses the following questions:

- (a) What are the considerations that should be taken into account in building a regression model to calculate benchmark efficient prices for the DTCS? Specific considerations we would like you to consider include:
 - use of data points based on historical prices on exempt routes;
 - (ii) the potential for bundling of:
 - (A) competitive and uncompetitive routes; and
 - (B) the DTCS and other services (for example, dark fibre),

its impact, and whether it can be taken into account in building a regression model; and

- (iii) the treatment of:
 - (A) different technologies for providing the DTCS;
 - (B) different route types;
 - (C) distance;
 - (D) contract length; and
 - (E) time stamps.
- (b) Are the findings contained in Data Analysis Australia Pty Ltd's report titled Domestic Transmission Capacity Service Price Benchmarking – Pricing Model Development: Consolidated Report (DAA Report) (Tab 3 of your Brief) robust? Specific matters we would like you to consider include:
 - the assumption of linearity in the relationship between distance and price, notwithstanding apparent differences in technology (eg SDH vs Ethernet) and service types (eg regional vs CBD and metropolitan routes);

Appendix C: Instructions

- (ii) the assumption that all exempt routes are competitive and are therefore indicative of efficient prices irrespective of the number of competitors on the route;
- (iii) the extent and treatment of residuals resulting from the analysis; and
- (iv) the extent to which the considerations indentified in question (a) above are taken into account.
- (c) Does the regression model used by the ACCC in the 2012 DTCS FAD achieve the ACCC's core statutory objectives of promoting competition, any-to-any connectivity and the efficient use of, and investment in, infrastructure (as outlined in more detail in paragraph 1.4 of the Letter of Instructions)?
- (d) Are there alternative approaches to the development of a regression model which would increase the extent to which these objectives are achieved or promoted? Could these include:
 - (i) additional variables that were not considered in the DAA Report and/or included in the regression model adopted by the ACCC;
 - (ii) differential treatment of variables considered in the DAA Report and/or included in the regression model adopted by the ACCC; and
 - (iii) the ability of interested parties to have access to the data set used to create the regression model?

We recognise that some of these questions (and hence their responses) overlap and invite you to tailor your response accordingly. We envisage a report of approximately 10 pages in length and would request that you provide us with a draft before finalising it.

Please let us know if you require any clarification on the questions or any further information or assistance.

Kind regards

Thomas, Rowan and Lisa

Appendix C: Instructions

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



Annexure 2 – Dr. Bartel's Supplementary Report



9 September 2014

By email

Mr Thomas Jones Corrs Chambers Westgarth 8-12 Chifley Square Sydney NSW 2000

Confidential and privileged

Dear Thomas

Re: ACCC Discussion Paper - Primary Prices

I refer to your email of 13 August 2014 in which you ask me to address two questions relating to the ACCC's recent *DTCS FAD Discussion Paper – Primary Prices* (Discussion Paper). I address these questions below.

1. Does anything in the Discussion Paper alter the views expressed in the previous report you prepared for us?

The main conclusion in my previous report - *Review of Regression Modelling for DTCS FAD* (my report) was that the regression model developed by Data Analytics Australia for the ACCC in 2012 (regression model) is not a credible tool for determining benchmark efficient prices, primarily because: (a) the model provides a very poor fit to the data, with an almost fifty-fold range of actual prices lying above and below the predicted prices, and (b) the predicted mean value prices used to set the benchmark prices cannot be regarded as efficient prices, since at least 25% of the actual prices used in the analysis are more than 25% below the corresponding benchmark prices.

The Discussion Paper does not explicitly address the concerns I raised in my report. However, section 3.2.1of the Discussion Paper states that the ACCC "recognises that there are many factors that may affect prices in the market" and lists a number of factors that were not included in the regression model. Section 3.2.1 also notes "that it may be appropriate to reconsider this mean value approach in the next FAD". Hence, to some extent, the Discussion Paper acknowledges the main issues I raised in my report.

 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

None of the material in the Discussion Paper challenges or can be interpreted as a rejoinder to any of the issues I raised in my report. Hence there is nothing in the Discussion Paper that causes me to alter any of the views I expressed in my report.

2. In light of the Discussion Paper, what do you consider would be the most efficient process for analysing the new data and forming a view as to the appropriate explanatory variables?

In section 3.1 of the Discussion Paper, the ACCC indicates that it "considers that a collaborative approach between relevant independent experts, with appropriate confidentiality safeguards in place in relation to the confidential industry data, will assist the ACCC to determine appropriate regression modelling analysis to inform prices for the 2015 DTCS FAD". In my view, enabling experts with different experiences and insights to analyse, and exchange views on, any complex dataset and modelling task is likely to result in improved models. Hence I welcome the ACCC's willingness to engage in such a process.

In order to gain the maximum benefit from such an approach, I believe it is important that the ACCC take a very broad view in regard to the factors that may affect market prices. All of the factors reviewed in section 3.2 of the Discussion Paper may affect market prices – to what extent is an empirical question. Hence I would advise that information be collected on all these factors as far as is practicable. Rather than pre-judging whether or not a particular variable that quantifies a factor is important empirically, the main consideration should be whether reliable and comparable information is available on the variable. It is not uncommon for an analyst to gain valuable insight on how to specify a model from auxiliary information that might, at first sight, not seem of primary importance.

A second important consideration is that the process agreed on for involving experts should allow for the expert to obtain clarification on aspects of the data, and possibly to request supplementary information. This is standard practice when an analyst works directly with the party that provides the data. In this case, the relationship between the expert and the source of the data is remote. It would be very helpful if channels could be set up to facilitate the flow of follow up information where this would assist the analysis of the data.

With respect to the envisaged collaboration between experts, I believe that this would be most effective through an exchange of reports after an initial phase of data analysis and model development. This could be followed by critiques and reply reports, possibly supplemented by conference calls or round table discussions.

Yours sincerely,

RBartelo

Robert Bartels



Annexure 3 – Statutory Criteria

The ACCC's FAD decision making process must be guided by the object of Part XIC, namely, promoting the LTIE (section 152AB). In addition, in making an FAD, the ACCC is obliged to have regard to the matters set out in section 152BCA(1) of the CCA (the statutory criteria).

In combination, these considerations are fundamental to all aspects of the ACCC's task and have significant implications for various aspects of the decision-making process. These issues are considered in more detail below.

Objects of Part XIC of the CCA and Statutory Criteria

The overall object of Part XIC of the CCA is expressed to be the promotion of the LTIE. In addition, subsection 152BCA(1) of the CCA sets out certain matters that the ACCC must have regard to in making an FAD. These are:

- a) whether the determination will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services;
- b) the legitimate business interests of a carrier or carriage service provider 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;
- g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

In the present context, where the ACCC is considering pricing issues on a stand-alone basis, some of the criteria are clearly more relevant than others.

Long-term interests of end-users

The first criterion the ACCC is required to consider is whether the FAD will promote the LTIE. As noted above the promotion of the LTIE is also expressed to be the overall object of Part XIC of the CCA.

Section 152BA of the CCA states that in considering whether any thing will promote the LTIE, regard must be had to the extent to which it is likely to promote competition, any-to-any connectivity and the efficient use of and investment in infrastructure.

In the undertaking context, the ACCC has stated that the LTIE embodies three key concepts:



- a) End-users the actual or potential uses of the service;
- b) Interests the interests of end-users lie in obtaining lower prices (than would otherwise be the case), increased quality of service and increased diversity and scope of product offerings. This includes access to innovations in a quicker timeframe that would otherwise be the case; and
- c) Long-term: the long-term will be the period over which the full effects of the decision will be felt. This may amount to a number of years, that is, sufficient time for all players (including existing and potential competitors) to adjust to the outcome, make investment decisions and implement growth as well as entry and / or exit strategies.¹

In addition, the Australian Competition Tribunal (ACT) has held that assessing the likely effect of a regulatory change on the LTIE requires:

- consideration of the range of likely short-term outcomes as the market evolves over time, responding to changing market forces of supply and demand;
- an examination of the existing nature and level of competition in the market and the impact of the matter in question in both the near future as well as in the longer term; and
- a balancing or weighting process to evaluate the overall long-term impact on end-users of any proposed change sought in the regulatory environment.²

VHA submits that the ACT's approach clearly contemplates a rigorous, evidence based approach to regulatory decisionmaking. Meaningful consideration of the competitive status quo, the potential short, medium and longer term implications of regulatory change and balancing of the overall impact upon end-users cannot occur in the absence of detailed analysis based on sound evidence.

Legitimate business interests

The ACCC has stated that a supplier's legitimate business interests are its obligations to the owners of the firm. These include recovery of the cost of providing services, earning a normal commercial return on investment in infrastructure and consideration of the impact that access arrangements may have on the owner's ability to realise economies of scale.³ The ACT has held that legitimate business interests include commercial returns on prudent past investment in infrastructure to supply services, but do not include hypothetical new investment.⁴

¹ ACCC, Draft decision: Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service, December 2007 at 32, citing Seven Network Limited (No 4) [2004] ACompT 11 at [120].

² Application by Telstra [2009] AComptT 1 at [81]

³ MTAS Discussion Paper, 35

⁴ Application by Telstra [2010] ACompT1 at [243]



A price that would be charged by a supplier if it faced competition in the provision of a service would be consistent with the supplier's legitimate business interests as no business has a right to revenues higher than those obtainable in a competitive market.⁵

Persons who have a right to use

Persons who have rights to use a service will generally use that service as an input to supply carriage services, or a service supplied by means of carriage services, to end-users. The ACCC has previously expressed the view that these persons have an interest in being able to compete for the custom of end-users on the basis of their relative merits. Accordingly, terms and conditions that favour one or more service providers over others and distort the competitive process may prevent this from occurring and consequently harm those interests.⁶

The ACT has determined, in the context of an access undertaking, that a price that would be charged by a supplier if it faced competition in the provision of a service would be consistent with the interests of those who have rights to use a service as access seekers could expect no lower a price than would be charge in a competitive market.⁷ The same principle can be applied in the current context of an access determination.

Direct costs of providing access

The ACCC's Access Pricing Principles⁸ note that 'direct costs' are those costs necessarily incurred (or caused) by the provision of access. The access price should not be inflated to recover any profits the access provider (or any other party) may lose in a dependent market as a result of the provision of access. This criterion also implies that, at a minimum, an access price should cover the direct incremental costs incurred in providing access.⁹

Extensions or enhancements of capability

The ACCC has previously expressed the view that:

'This criterion requires that if an access seeker enhances the facility to provide the required services, the access provider should not attempt to recover for themselves any costs related to this enhancement. Equally, if the access provider must enhance the facility to provide the service, it is legitimate for the access provider to incorporate some proportion of the cost of doing so in the access price.'¹⁰

 ⁵ Whilst in Application by Telstra [2010] ACompT1 at [192], the ACT was considering what constitutes a supplier's legitimate business interests in the context of an undertaking, the same principle can be applied in the current context of an access determination.
 ⁶ ACCC, Draft decision: Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service, December 2007 at 38

⁷ Application by Telstra [2010] ACompT1 at [193]

⁸ ACCC, 'Access Pricing Principles – Telecommunications: a guide', 1997

⁹ ACCC, Draft decision: Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service, December 2007 at 40

¹⁰ ACCC, 'Access Pricing Principles – Telecommunications: a guide', 1997 at page 11. VHA notes that this comment was made in the context of matters to be considered by the ACCC in arbitrating an access dispute set out in section 152CR of the then Trade Practices Act 1974. This provision has now been repealed.



Safe and reliable operation

This criterion is more relevant to the determination of non-price terms and conditions. However, clearly the costs of supply of a service should be assessed based on the costs associated with supplying that service on a safely and reliably.

Economically efficient operation

The ACCC has previously set out the criteria to be used when considering economically efficient operation in the context of assessing an SAU.¹¹ In this context, consideration should be given to whether particular terms and conditions enable a carriage service, telecommunications network or facility to be operated in an efficient manner. This may involve examining whether they allow for the carrier supplying the declared service to recover the efficient costs of operating and maintaining the infrastructure used to supply the declared service under consideration.¹² This principle is equally applicable to the making of an FAD.

¹¹ ACCC, Draft decision: Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service, December 2007 at page 42

¹² ACCC, Draft decision: Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service', December 2007 at page 42



[start c-i-c] Image: Start c-i-c]</td

Annexure 4 – Analysis of Telstra's zone classifications

























[end c-i-c]