UNIVERSITY OF TECHNOLOGY SYDNEY

Communications Law Centre, UTS

Submission to the ACCC's Domestic Transmission Capacity Service Pricing Review

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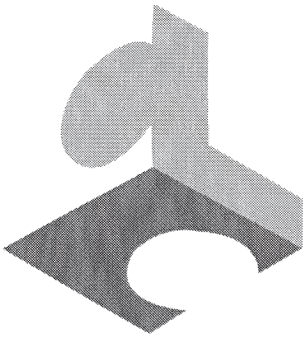
Table of Contents



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Executive Summary

1. The ACCC should adopt utility-style pricing for the DTCS.
2. The Regulatory Asset Base should be locked-in and it should be based on Depreciated Historic Costs.
3. Costs between competitive and non-competitive routes and declared and non-declared routes should be averaged and taken into account when setting prices.
4. If costs and prices are not averaged in this way, costs and prices should be take account of whether or not a network is resilient.
5. Businesses and service providers need resilient network structures.

1. Introduction

1.1 The Communications Law Centre, UTS (CLC) is an independent, non-profit, public interest centre specialising in communications, media and online law and policy. We appreciate this opportunity to respond to the Australian Competition and Consumer Commission's request for submissions responding to the ACCC's April 2010 discussion paper on domestic transmission capacity service (DTCS) pricing and to Frontier Economics' *Economics of transmission capacity services*.

2. The ACCC should adopt a utility-style methodology for recovering fixed costs and setting prices

2.1 The rationale for promoting efficient build or buy decisions through re-valued, forward looking TSLRIC+ DTCS pricing depends upon the prospect of serious infrastructure-based competition. Where this prospect is absent, as it is for many declared routes, so too is the rationale for using forward looking TSLRIC+ pricing. Instead, the ACCC should adopt a utility-style methodology for DTCS pricing. Such a methodology should use a price cap based on the depreciated Regulatory Asset Base (RAB), taking into account the marginal cost of service and a reasonable profit.

2.2 The DTCS infrastructure's RAB should be based on Depreciated Historic Costs (DHC). That is, the RAB should be based on the gross value of the operator's historic costs minus depreciation recovered hitherto over the life of the asset. This valuation both relies on the operator's regulatory account data, which is subject to external audit, and ties the recovery to the actual cost of the infrastructure to avoid over recovery.

2.3 By tying recovery to the objective cost of the infrastructure DHC avoids the highly subjective (and often contentious) TSLRIC cost-determination process, thereby increasing transparency and ease of administration.

2.4 The RAB should locked-in rather than periodically re-valued in order to create pricing certainty and allow for prudent investment by parties purchasing transmission.

2.5 Costs between competitive and non-competitive routes and declared and non-declared routes should be averaged, if not on a national basis, then on a state-by-state basis to help determine price of service. Although geographical de-averaging might provide better signals for investment in a truly competitive market, there are issues of consumer affordability and practicality with de-averaging. The infrastructure owner will have significant incentive to shift costs on to non-competitive routes in order to drive up the RAB, thereby increasing recovery; significant oversight would be required to prevent this, which can be difficult given the common costs. In addition, all Australians should have access to affordable internet access, and high transmission costs drive up retail service prices for retail internet service providers. National or regional averaging of routes would help ameliorate this concern.

2.6 If all routes are not averaged to determine costs for declared trunk and tail services, then trunk services alone should be averaged, if not a national level, then on a state-by-state level. This allows for cost averaging of trunk (thereby increasing ease of regulatory application and affordability in rural areas) while allowing tail services to be costed through another means, such as geographic bands.

3. If costs are not averaged to determine prices, then costs and prices should take into account whether or not a network is resilient

3.1 With regard to the DTCS, there are three major types of a network structures:

1. Resilient (rings or mesh).
2. Non-resilient (combination of point-to-point links).
3. Mixed (some segments are resilient, others are not).

3.2 The discussion paper (p. 10) mentions rings as the only resilient network structure. Rings are an essential feature of SDH (Synchronous Digital Hierarchy) transmission networks. Such rings secure sub-50 millisecond restoral times in the event of the catastrophic failure of a node or fibre. PDH (Plesiochronous Digital Hierarchy) transmission networks can form rings as well; however PDH networks offer less resilience features in comparison with SDH.

3.3 While PDH/SDH networks currently carry voice traffic, as well as data and integrated data (voice, video and data) traffic, they have been designed primarily for voice. Thus PDH/SDH networks are optimised for legacy TDM (Time Division Multiplexing) networks such as PSTN (Public Switched Telephone Network). Voice traffic is gradually being replaced by integrated data traffic. Therefore PDH/SDH networks have limited prospects of long-term technology development. New technologies like EoPDH/SDH (Ethernet over PDH/SDH) are often used to adjust existing PDH/SDH networks to growing amount of integrated data traffic.

3.4 Given these changes, the ACCC should include Ethernet networks in the service description of the DTCS, as it has proposed.[1]

[1] ACCC 2009, *Domestic Transmission Capacity Services. An ACCC Discussion Paper reviewing the declaration for the domestic transmission capacity service*, November 2009.

3.5 Contemporary MAN and WAN transmission networks (like EoFibre, or Ethernet over Fibre) are specifically designed for integrated data traffic. Such networks therefore have lower overhead and latency than PDH/SHD networks. At the same time, such networks can use resilience mechanisms not only at Layer 1 and 2 (like redundant fibre and standby channel, as SDH networks), but also at Layer 2.5 via MPLS (Multiprotocol Label Switching). GMPLS (Generalised MPLS) can be used to manage protection of links and paths in carrier-grade Ethernet networks via redirect of traffic from affected LSPs (Label Switched Paths) to backup LSPs (according to Schmid-Egger, A. and Kirstadter, A. 2006, 'Ethernet in core networks: a technical and economical analysis', Proceedings of the Workshop on High Performance Switching and Routing, p. 136).

3.6 Therefore, if costs are not averaged, DTCS pricing should take into account general network structures used (e.g., resilient, non-resilient and mixed), rather than particular examples of these structures (e.g., rings).

4. The grade of network that service providers and business require

4.1 Service providers and end-users (particularly businesses) need resilient network structures because a possible fault along a non-resilient and high-traffic route could affect a large group of end users. In the short term, mixed or non-resilient network structures could be used for tail-end transmission until full replacement by resilient ones. If so, service providers and end-users should be properly informed about proposed and implemented type of network structure.

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