



Australian  
Competition &  
Consumer  
Commission

# **Public Inquiry to make a Final Access Determination for the Domestic Transmission Capacity Service**

Draft Decision

4 September 2015  
Public Version



Australian Competition and Consumer Commission

© Commonwealth of Australia 2015

This work is copyright. Apart from any use permitted by the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Commonwealth available through the Australian Competition and Consumer Commission. Requests and inquiries concerning reproduction and rights should be addressed to the Director Publishing, Australian Competition and Consumer Commission, GPO Box 3131, Canberra ACT 2601.

# Contents

<b>List of abbreviations and acronyms .....</b>	<b>1</b>
<b>Executive Summary.....</b>	<b>3</b>
<b>1 Consultation .....</b>	<b>5</b>
1.1 Consultation on primary price terms and conditions .....	5
1.2 Consultation on NPTCs and supplementary prices .....	6
1.3 Draft decision .....	7
1.4 Making a submission to the draft decision .....	7
1.5 Structure of report .....	8
<b>2 Background .....</b>	<b>9</b>
2.1 Transmission services .....	9
2.2 The declared service – the DTCS.....	9
2.3 The 2012 DTCS FAD.....	10
<b>3 Regulatory assessment.....</b>	<b>11</b>
3.1 Legislative framework .....	11
3.2 ACCC assessment against subsection 152BCA(1) criteria .....	12
3.3 Criteria for NPTCs.....	16
<b>4 Benchmarking and the DTCS pricing model.....</b>	<b>17</b>
4.1 ACCC decision to adopt a domestic benchmarking approach to DTCS pricing.....	17
4.2 Data collection and management .....	18
4.3 Benchmarking analysis/regression .....	20
4.4 DTCS pricing model.....	29
<b>5 Other price considerations .....</b>	<b>34</b>
5.1 Bass Strait pricing .....	34
5.2 Tail-end service pricing .....	36
5.3 Connection charges .....	40
5.4 Special linkage charges .....	43
5.5 Facilities access .....	44
5.6 Telstra Managed Leased Line services .....	46
<b>6 Other information on transmission prices .....</b>	<b>49</b>
6.1 International benchmarking.....	49
6.2 Consideration of other available costs models .....	51
<b>7 Non-price terms and conditions .....</b>	<b>53</b>
7.1 Special linkage charges .....	53

<b>8</b>	<b>Duration of the FAD</b>	<b>60</b>
	<b>Appendices</b>	<b>63</b>
	<b>A - List of submissions</b>	<b>64</b>
	<b>B - Legislative framework for access determinations</b>	<b>67</b>
	B.1 Content of final access determinations	67
	B.2 Fixed principles provisions	67
	B.3 Varying final access determinations	67
	B.4 Commencement and expiry provisions	67
	B.5 Matters to consider when making FADs	67
	<b>C - Treatment and collection of benchmarking data</b>	<b>75</b>

## List of abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
BROC	Binding rule of conduct
CCA	<i>Competition and Consumer Act 2010</i>
CCC	Competitive Carriers Coalition
CSP	Carriage service provider
DAA	Data Analysis Australia Pty Ltd
DTCS	Domestic transmission capacity service (as defined in the current service description)
CW	Commercial works
DCS	Data carriage service
EI	Economic Insights
EIC	External interconnect cable
ESA	Exchange service area
FAD	Final access determination
FFS	Fee for service
FLSM	Fixed line service model
LTIE	Long-term interests of end-users
Mbps	Megabits per second
Metro route	Metropolitan route
MLL	Managed leased line
Model Terms	Model Non-Price Terms & Conditions Determination 2008
MTAS	Mobile terminating access service
NBN	National broadband network
NPB	Network boundary point
NPTC	Non-price terms and conditions
OECD	Organisation for Economic Co-operation and Development
POI	Point of interconnection

POP	Point of presence
PPP	Purchasing power parity
QoS	Quality of service
SAOs	Standard access obligations
SDH	Synchronous digital hierarchy
SEP	Site enabled pricing
SIO	Services in operation
SLC	Special linkage charge
SSU	Structural separation undertaking
TEBA	Telstra equipment building access
TEM	Telstra economic model
Telco Act	<i>Telecommunications Act 1997</i>
USD	United States dollar
VHA	Vodafone Hutchison Australia

# Executive Summary

The Australian Competition and Consumer Commission (ACCC) has reached its draft decision on the primary price terms and supplementary price terms to be included in the final access determination (FAD) for the domestic transmission capacity service (DTCS). This draft decision is part of the ACCC's public inquiry into making an access determination for the DTCS under Part XIC of the *Competition and Consumer Act 2010* (CCA).

## *Reduction in regulated prices*

The regulation of the transmission network plays an important role in promoting competition in the telecommunication market, particularly in regional areas where there is insufficient competition. This draft decision provides for DTCS pricing which is significantly lower than the regulated prices set in the 2012 DTCS FAD.

On average, regulated DTCS pricing is 22.2 per cent lower than that determined by the ACCC in 2012. In particular, average regulated pricing for the DTCS is 17.6 per cent lower in metropolitan areas and 23.8 per cent lower on regional routes. The most substantial reduction in prices has been for higher capacity services, such as 100Mbps, which are increasingly being taken up by access seekers to meet data demands.

The decline in the regulated price varies depending on the geographic route type, capacity and distance of a particular service.<sup>1</sup> Comparative charts set out in Chapter 4.4 illustrate the price differences for 2Mbps and 100Mbps DTCS services in metropolitan areas and regional areas, respectively. The lower DTCS pricing is consistent with the decline in annual charges on competitive routes since 2012 and the more general downward trend in transmission prices, particularly those using more modern network interfaces such as Ethernet.

The draft decision sets out:

- a method for deriving end-to-end prices for declared inter-capital, regional and metropolitan services at different capacities and distances including services with a bundled tail-end component
- a method for deriving standalone tail-end services (metropolitan or regional) at different capacities
- an uplift factor for regional services which use an undersea cable link across the Bass Strait
- prices for non-recurring connection charges, and
- non-price terms for special linkage charges.

The ACCC considers that the draft DTCS FAD will promote competition in the regulated markets. For access seekers, being able to access transmission services at efficient costs will promote competition in downstream markets for which transmission services are an essential input. The draft decision will also ensure access providers are able to recover the cost of maintenance and supply of the infrastructure and that new entrants are able to make an appropriate return on their investment, thereby promoting competition in wholesale transmission markets.

## *Domestic benchmarking approach*

The ACCC is using a domestic benchmarking approach to price the DTCS in the FAD. This pricing approach has widespread support from stakeholders. Domestic benchmarking uses prices of transmission services in competitive routes and areas to derive annual prices for

---

<sup>1</sup> Comparative charts in Chapter 4.4 of this draft decision show the differences in price for 2Mbps and 100Mbps services on metropolitan and regional routes.

DTCS services that would likely apply in uncompetitive, declared areas or routes as if they were competitive. The ACCC has used the benchmarking approach in order to eliminate the possibility of monopoly profits being earned on uncompetitive routes and to mimic the cost efficiencies achieved on competitive routes. The ACCC engaged a consultant, Economic Insights, to develop a regression model to estimate competitive benchmark-based prices on regulated routes using commercial pricing data supplied by transmission providers.<sup>2</sup>

The ACCC has undertaken extensive consultation with stakeholders during the development of the regression model, including with experts engaged by stakeholders. The ACCC considers that the level of engagement and consultation with stakeholders has provided a more transparent and collaborative process and a model that adequately benchmarks competitive prices for regulated routes and areas.

Analysis of the most recent data obtained from industry found route type, capacity and distance to be the primary determinants of transmission prices in the DTCS market. This result is consistent with the findings of the 2012 DTCS FAD. The current inquiry also found interface type, service provider, route and exchange service area (ESA) throughput as significant determinants of price.

The prices set out in the FAD are for services acquired for a minimum period of one year. A pricing calculator is available on the ACCC website to allow access seekers to ascertain DTCS FAD prices for particular routes.

#### *Supplementary prices*

The ACCC has included a number of supplementary price terms in the FAD. The ACCC is proposing to price connection charges for DTCS services of different capacities and network interfaces. The ACCC also proposes to continue with an uplift factor of 40 per cent for services that use the Bass Strait undersea cable link.

#### *Specific non-price terms for special linkage charges*

The ACCC has also given consideration to specific non-price terms and conditions for the DTCS. The ACCC is proposing a new non-price term for special linkage charges (SLCs). SLCs are charged when carriers are required to extend their networks by access seekers. The new non-price term for SLCs will require access providers to itemise quotes in order to allow access seekers to assess the reasonableness of a quote. Other NPTCs listed in the draft FAD instrument (provided on the ACCC website) have been determined by the ACCC in a separate but related public inquiry on NPTCs for other declared telecommunication services.<sup>3</sup>

#### *Duration of the FAD*

The ACCC draft decision is for the FAD to expire 9 months after the expiry of the DTCS declaration, that is, on 31 December 2019. The ACCC considers that the proposed duration of the FAD will provide stakeholders with commercial certainty when negotiating agreements or considering investment. However, the ACCC recognises that the transmission market is dynamic and will continue to monitor transmission prices during the term of the FAD.

The ACCC invites submissions from interested parties on the draft DTCS FAD. Submissions are due by 2 October 2015.

---

<sup>2</sup> A copy of Economic Insights, *DTCS Benchmarking Model – Final Report prepared for ACCC*, 1 September 2015 (Economic Insights final report) is available on the [ACCC website](#).

<sup>3</sup> See ACCC, *Telecommunications Final Access Determination inquiries—non-price terms and conditions - Final decision for MTAS and views for fixed line services and DTCS*, August 2015 (2015 NPTC report) available on the [ACCC website](#).



# 1 Consultation

The ACCC commenced a public inquiry into making the 2015 DTCS FAD on 23 May 2014. As part of this inquiry, the ACCC undertook two separate and concurrent consultation processes concerning:

- primary price terms and conditions, and
- supplementary prices and non-price terms and conditions (NPTCs).

The ACCC is able to determine pricing and other conditions for access to the declared service (that is, the DTCS) which access seekers may rely on if they are unable to commercially agree on prices with the access provider. The ACCC is also able to set supplementary prices for additional charges that are incurred when accessing the declared service, such as connection charges or SLCs.

## 1.1 Consultation on primary price terms and conditions

The ACCC undertook a thorough consultation with stakeholders to facilitate stakeholder input in the development of the regression model used to price the DTCS. The ACCC considers that additional stakeholder engagement has provided increased transparency and scrutiny of regression results and a more robust regression model.

In the public consultation on primary price terms and conditions, the ACCC:

- published a discussion paper, which amongst other things sought submissions on pricing methodologies
- held a forum with stakeholders in September 2014 on DTCS pricing methodologies and released a position statement with its decision to adopt a benchmarking pricing approach
- held two forums in April 2015 (one with stakeholders and another with stakeholder experts) with respect to a range of DTCS pricing and regression modelling issues
- consulted on Economic Insights' regression model and analysis in their draft report (Economic Insights, *DTCS Benchmarking Model – Draft Report prepared for ACCC*, 3 June 2015), and
- published Economic Insights' final report (Economic Insights, *DTCS Benchmarking Model – Final Report prepared for ACCC*, 1 September 2015).

### *Pricing approach*

The ACCC commenced its inquiry into DTCS primary price terms and conditions on 24 July 2014 with the release of a discussion paper on DTCS pricing methodologies. After receiving submissions to the discussion paper, the ACCC held a forum with stakeholders in September 2014 to discuss issues surrounding pricing methodologies.

On 7 November 2014 the ACCC released a position statement<sup>4</sup> indicating that it would use a domestic benchmarking approach to setting price terms for the 2015 DTCS FAD. Under this approach, a regression model is used to benchmark pricing information on competitive routes (and areas) in order to determine cost-reflective prices for the uncompetitive routes (and areas).

A copy of the [2014 DTCS pricing methodology position statement](#) is available on the ACCC website.

---

<sup>4</sup> ACCC, *DTCS Public inquiry into making a final access determination - Position statement on pricing methodology*, November 2014 (2014 DTCS pricing methodology position statement).

### *Data request and confidentiality regime*

In November 2014 the ACCC requested commercial pricing information data from transmission providers which could be used to benchmark prices on uncompetitive routes.<sup>5</sup> The pricing dataset was finalised in March 2015 and provided to the ACCC's consultant, Economic Insights, for statistical analysis and pricing model development.

At the stakeholder forum in September 2014, there was general agreement amongst stakeholders that allowing stakeholder's experts access to the confidential commercial pricing dataset would assist the ACCC to obtain a more robust regulatory outcome. Following the stakeholder forum, the ACCC established a confidentiality regime to protect the confidentiality and sensitivity of commercial pricing data and enable stakeholder experts to have access to a de-identified version of the pricing dataset. The ACCC provided a confidential copy of the dataset to experts engaged by Telstra, Optus and VHA in March 2015<sup>6</sup> and a small sample of (de-identified) data to other interested stakeholders. Data collection and management is discussed further in Chapter 4 of this draft Decision.

### *Regression analysis and modelling of pricing data*

In April 2015 the ACCC held a technical workshop with Economic Insights and stakeholder experts to discuss Economic Insights' econometric analysis of pricing data and development of a regression model. On the same day a separate non-confidential presentation by Economic Insights was given to stakeholders on developments in the regression modelling approach and broader issues relating to the FAD. The ACCC received submissions from stakeholder experts regarding the 2014 dataset and Economic Insights' preliminary regression analysis. These submissions were taken into account in Economic Insights' draft report which was circulated to stakeholder experts on 10 June 2015. A redacted version of the draft report was also provided to stakeholders. Submissions from stakeholders (and their experts) on the draft report were taken into account in the development of the regression model published in Economic Insights' final report.

A copy of [Economic Insights' final report](#) is available on the ACCC website.

## **1.2 Consultation on NPTCs and supplementary prices**

In a separate and concurrent public inquiry process, the ACCC consulted on NPTCs for the DTCS together with other declared services.<sup>7</sup> The ACCC considered that there were benefits in conducting a combined consultation process on NPTCs as they covered a number of related issues. As part of this public inquiry, the ACCC released for consultation a position paper in May 2014, a discussion paper in October 2014 and draft decision paper in March 2015 before releasing a final report on 24 August 2015. Following submissions to the position paper, it was decided that supplementary pricing would be considered alongside primary prices for each of the declared services (DTCS connection charges and SLCs are addressed in Sections 5.4 and Chapter 7 of this draft decision). The ACCC's current views on the NPTCs for the DTCS FAD are set out in the [2015 NPTC report](#). More information on the NPTC consultation is available on the [ACCC website](#).

---

<sup>5</sup> The transmission providers which provided pricing data included: Telstra Corporation Limited, SingTel Optus Limited, TPG Group Limited, AAPT Limited, Nextgen Networks Pty Limited, Amcom Pty Limited, Vocus Fibre Pty Limited, Verizon Australia Pty Limited, M2 Group Limited, Basslink Telecoms Pty Limited and Nexium Telecommunications.

<sup>6</sup> Telstra retained Professor Breusch, VHA Professor Bartels and Optus Competition Economists Group (CEG).

<sup>7</sup> The other declared services are the seven fixed line telecommunication services and the mobile terminating access service (MTAS).

## 1.3 Draft decision

In this draft decision, the ACCC sets out the method for deriving primary price terms and conditions, connection charge prices and specific NPTCs for SLCs. For common NPTCs which apply to the DTCS and other declared services, this draft decision adopts the views expressed by the ACCC in the [2015 NPTC report](#).

In making this draft decision, the ACCC has taken into account the submissions made to the:

- 2014 DTCS FAD primary prices discussion paper<sup>8</sup>
- 2014 NPTC and supplementary prices position paper<sup>9</sup>
- stakeholder forums in September 2014 and April 2015
- stakeholder expert technical workshop in April 2015, and
- Economic Insights' draft report.

A list of the submissions is at **Appendix A** to this draft decision.

Draft price and non-price terms are also set out in full in the draft DTCS FAD instrument which is provided on the ACCC website.

## 1.4 Making a submission to the draft decision

The ACCC encourages all interested parties to make submissions on this draft decision. Submissions made previously to the inquiry on NPTCs do not need to be provided again as part of this consultation.

To foster an informed and consultative process, all submissions will be considered as public submissions and will be posted on the ACCC's website. Interested parties wishing to submit commercial-in-confidence material to the ACCC should submit both a public and a confidential version of their submission. The public version of the submission should clearly identify the commercial-in-confidence material by replacing the confidential material with an appropriate symbol or 'c-i-c'.

The ACCC has issued a guideline setting out the process parties should follow when submitting confidential information to communications inquiries commenced by the ACCC. The guideline is available on the ACCC website at: <http://www.accc.gov.au/publications>.

The *ACCC-AER information policy: the collection, use and disclosure of information* sets out the general policy of the ACCC and the Australian Energy Regulator on the collection, use and disclosure of information. A copy of the guideline can be downloaded from the ACCC website: <http://www.accc.gov.au>.

Submissions should be sent to [DTCS@acc.gov.au](mailto:DTCS@acc.gov.au) by COB **2 October 2015**. Submissions received after this date may not be considered.

The ACCC also prefers to receive submissions in electronic form, either in PDF or Microsoft Word format which allows the submission text to be searched.

---

<sup>8</sup> ACCC, *DTCS Final Access Determination Discussion Paper – Primary Prices*, July 2014 (2014 DTCS FAD primary prices discussion paper).

<sup>9</sup> ACCC, *Telecommunications Final Access Determination inquiries—non-price terms and conditions and supplementary prices - Position paper*, May 2014 (2014 NPTC and supplementary prices position paper).

Please contact Grahame O’Leary ([grahame.oleary@acc.gov.au](mailto:grahame.oleary@acc.gov.au) / 02 9230 3822) or Scott Harding ([scott.harding@acc.gov.au](mailto:scott.harding@acc.gov.au) / 03 9290 6434) with any questions on the DTCS FAD inquiry.

## 1.5 Structure of report

The report on the draft decision is set out as follows:

- Chapter 2 sets out background information on the declared DTCS and the 2012 DTCS FAD.
- Chapter 3 discusses the legislative framework and its application to DTCS primary price terms and NPTCs.
- Chapters 4 outlines the ACCC’s approach to pricing the DTCS, the regression analysis and the preferred pricing model used to determine primary price terms for the DTCS. This chapter also discusses the expected pricing impacts of the FAD model.
- Chapter 5 discusses other pricing considerations relevant to the DTCS, including the Bass Strait pricing, Tail-end services, connection charges, special linkage charges, facilities access and Telstra’s Managed Lease Line service.
- Chapter 6 considers other information on transmission prices from other sources.
- Chapter 7 sets out the ACCC’s draft decision on relevant NPTCs for the DTCS FAD.
- Chapter 8 sets out the ACCC’s draft decision on the duration of the DTCS FAD.
- **Appendix A** lists the submissions received by the ACCC on primary price terms and DTCS specific NPTCs and supplementary price terms.
- **Appendix B** sets out the legislative framework for access determinations.
- **Appendix C** provides an overview of the treatment and collection of benchmarking data.

## 2 Background

### **Key Points**

- The DTCS is the regulated part of all wholesale transmission services and is defined by the DTCS service description. The price and NPTCs discussed in this draft decision only apply to the DTCS. The current declaration is due to expire on 31 March 2019.
- In 2012 the ACCC made a DTCS FAD for the first time. The 2012 DTCS FAD set prices for a standalone DTCS service supplied for a one year period using a domestic benchmarking approach.
- In 2014 the ACCC varied and extended the 2012 DTCS FAD (due to expire on 31 December 2014). The varied 2012 DTCS FAD will expire on the day before a new DTCS FAD is made.

### 2.1 Transmission services

Transmission services are supplied by transmission network owners to access seekers (carriers and carriage service providers (CSPs)) to carry traffic between two locations. The term 'transmission' refers to high capacity data links that are used to carry large volumes of communications traffic. Types of traffic which may be carried via transmission networks include voice, data or video communications.

Wholesale transmission services essentially allow access seekers to connect customers in places where they do not own their own transmission infrastructure. Transmission services therefore enable carriers and CSPs to connect their core networks with points of service delivery (such as exchanges or end customer premises) around Australia.

### 2.2 The declared service – the DTCS

The DTCS was deemed to be a declared service in June 1997.<sup>10</sup> The declaration was extended or varied in November 1998, May 2001, April 2004, April 2009, September 2010 and March 2014. The current DTCS declaration is due to expire on 31 March 2019.

The DTCS is a service which carries large volumes of voice and data communications from one point to another point via symmetric network interfaces on a permanent and uncontended basis, subject to a range of specifically defined exceptions. For the purposes of the FAD, the DTCS does not include communications between:

- one customer transmission point directly to another customer transmission point
- one access seeker network location directly to another access seeker network location
- selected inter-capital routes
- selected regional routes, and
- selected metropolitan routes.

In the 2014 DTCS declaration inquiry the ACCC assessed the level of competition for DTCS services on all DTCS routes (including both deregulated and regulated routes) using a revised

---

<sup>10</sup> ACCC, *Deeming of Telecommunications Services: a statement pursuant to section 39 of the Telecommunications (Transitional Provisions and Consequential Amendments) Act 1997*, June 1997.

competition methodology.<sup>11</sup> This assessment found that in addition to an existing 88 deregulated metropolitan ESAs, an additional 112 metropolitan ESAs and eight regional routes could be deregulated because they met the competition methodology. It also found three deregulated routes and seven ESAs failed to meet the revised methodology and as a result, decided to regulate those routes and ESAs.

The full DTCS service description, including the list of routes that are not subject to regulation, is available on the [Regulated Infrastructure area of the ACCC website](#).

## 2.3 The 2012 DTCS FAD

There was no regulated price for the DTCS and no agreed methodology for setting prices prior to the 2012 DTCS FAD. As part of its inquiry to set regulated prices, the ACCC undertook a wide ranging consultation which examined a number of approaches to pricing, including bottom-up long-run incremental cost, top-down long-run incremental cost, fully allocated cost, international and/or domestic benchmarking and a combined approach.<sup>12</sup>

Following consideration of submissions and independent analysis of the best approach for setting transmission prices, the ACCC adopted a domestic benchmarking approach. This approach considered that prices in competitive areas and on competitive routes were reflective of the costs of supplying efficient services. The ACCC used information and data from transmission providers as the basis for developing a regression model that informed the benchmarking approach for the [2012 DTCS FAD](#).<sup>13</sup>

The 2012 DTCS FAD set prices for a standalone DTCS service supplied for a one year period. The FAD prices were subsequently incorporated by Telstra into its Rate Card as required under its structural separation undertaking (SSU) ([published on the Telstra Wholesale website](#)).

### ***Variation and extension of the 2012 DTCS FAD***

On 5 November 2014, the ACCC extended the 2012 DTCS FAD which was due to expire on 31 December 2014. The extension ensured that the routes and ESAs regulated in the 2014 DTCS declaration would be covered by the 2012 DTCS FAD from 1 January 2015 until a new DTCS FAD is made. The notice of extension can be found on the ACCC's [public register](#).

Although extended, the 2012 DTCS FAD did not apply to certain routes that were not regulated at the time the 2012 FAD was made, but which the ACCC decided to regulate when it varied (and extended) the DTCS declaration in 2014. These related to three regional routes and seven ESAs.

Following a public consultation, the ACCC decided to vary the 2012 DTCS FAD in December 2014 so that the price and NPTCs in the 2012 DTCS FAD would apply to the re-regulated routes and ESAs from 1 January 2015. The varied 2012 DTCS FAD will expire on the day before a new DTCS FAD is made. The notice of variation made on 17 December 2014 is also on the ACCC's [public register](#).

---

<sup>11</sup> See ACCC, *Final Report on the review of the declaration for the Domestic Transmission Capacity Service*, March 2014 (2014 DTCS declaration).

<sup>12</sup> ACCC, *DTCS – A position paper on pricing the DTCS*, November 2010 is on the [ACCC website](#).

<sup>13</sup> See also ACCC, *Final access determination for the DTCS – Explanatory Statement*, June 2012 (2012 DTCS FAD Explanatory Statement).

## 3 Regulatory assessment

### **Key Points**

- The ACCC must consider a range of factors when making a FAD. These factors are set out in the criteria specified in subsection 152BCA(1) of the CCA.
- The ACCC considers that domestic benchmarking (with appropriate refinements and improvements) is an appropriate methodology for setting regulated DTCS price terms in the FAD that meets the criteria.
- The ACCC's current views on common NPTCs which apply to the DTCS and other declared services, and assessment of the legislative criteria, is in the NPTC report published on 24 August 2015.
- Proposed NPTCs for special linkage charges (SLCs), will enhance transparency and improve clarity in relation to cost inputs, which is in the LTIE as costs are more likely to reflect the efficient cost of supply when the inputs are transparent.

The CCA and the *Telecommunication Act 1997* (Telco Act) requires the ACCC to hold a public inquiry into whether to make a FAD for all declared services.<sup>14</sup> The DTCS was first deemed a declared service in June 1997. The current DTCS declaration is due to expire on 31 March 2019.

A FAD provides a set of terms and conditions that access seekers can rely on if they cannot agree on terms of access with an access provider. If parties come to an agreement on terms and conditions of access, their access agreement will prevail over the FAD to the extent of any inconsistency.

The CCA does not require a FAD to set out *all* of the terms and conditions that apply to a declared service. An access determination must however include terms relating to price or a method of ascertaining price. NPTCs may also be included but are not compulsory.<sup>15</sup>

### 3.1 Legislative framework

The ACCC must consider a range of factors when making a FAD. These factors are set out in the matters specified in subsection 152BCA(1) of the CCA. They include:

- whether the determination will promote the long term interests of end-users (LTIE) of carriage services or services supplied by means of carriage services.
- the legitimate business interests of a carrier or CSP who supplies, or is capable of supplying the declared service, and the carrier's or CSP's investment in facilities used to supply the declared service
- the interests of all persons who have rights to use the declared service
- the direct costs of providing access to the declared service
- the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else
- the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility, and

<sup>14</sup> Subsection 152BCI(2) of the CCA and Part 25 of the *Telecommunications Act 1997* (Telco Act).

<sup>15</sup> Sections 152BC(3) and 152BC(8) of the CCA.



the economically efficient operation of a carriage service, a telecommunications network or a facility.

The ACCC may also take into account any other matters that it thinks are relevant when making a FAD.<sup>16</sup> Information about the above requirements and how the ACCC will apply the legislative criteria is at **Appendix B**.

## 3.2 ACCC assessment against subsection 152BCA(1) criteria

The ACCC has had regard to the relevant legislative criteria in reaching draft positions on pricing. The ACCC considers that domestic benchmarking (with appropriate refinements and improvements) is an appropriate methodology for setting regulated DTCS price terms in the FAD that meets the criteria.

A domestic benchmarking pricing approach is appropriate because:

- there are a sufficient number of routes or areas within Australia which are considered to be competitive
- the competitive prices on these routes and areas can be used as a benchmark to determine the prices that would apply in the uncompetitive (regulated) routes and areas, if those routes and areas were competitive, and
- prices in competitive areas and on competitive routes will reflect the costs of supplying efficient services.

The ACCC considers that a benchmarking approach to setting regulated prices for the DTCS is appropriate taking into account the relevant factors listed in section 152BCA of the CCA. In using the pricing information from effectively competitive routes to determine the prices on uncompetitive routes and adjusting for lower throughput through the route and the ESA, the benchmarking approach is designed to mimic the cost efficiency achieved on competitive routes. In doing so, the benchmarking approach provides for prices which reflect more closely the cost of supply.

It is important to note that regulated routes and deregulated (or competitive) routes have a mix of high and low levels of demand. However, on competitive routes, there are three or more service providers offering services, even where demand is low. This is captured in the regression model. On regulated routes however, there is both low demand and either no or limited competition, which in turn leads to the potential for monopoly prices.

When the price of the declared service reflects the cost of providing the service, it promotes competition and allocative efficiency in downstream markets for services in which the declared service is an essential input. The promotion of competition in these markets is likely to encourage carriers to invest, innovate and improve the range and quality of services and promote dynamic efficiency over time. In using prices on effectively competitive routes and adjusting for the differences in the level of demand to set the regulated prices, this approach takes account of an appropriate return on investment, considers the legitimate business interests of the carriers and encourages efficient investment in the infrastructure used to provide the declared service in the long term.

While the ACCC has had regard to all of the matters set out in sub-section 152BCA(1) of the CCA, the ACCC notes, in particular, the following factors:

- whether the FAD will promote the LTIE
- the legitimate business interests of transmission providers

---

<sup>16</sup> Subsection 152BCA(3) of the CCA.



- the interests of all persons who have rights to use the declared service (access seekers)
- the direct costs of providing access to the declared service, and
- the economically efficient operation of a carriage service, a telecommunications network or a facility.

The ACCC provides (below) a general explanation of its approach in applying key legislative criteria to reach draft positions on pricing the DTCS. This general explanation is to be read together with the ACCC's specific analysis in each of the sections that deal with each of the terms and conditions in detail.

### ***Whether the FAD will promote the LTIE***

In determining whether the draft DTCS FAD price terms will promote the LTIE, the ACCC has had regard to the extent to which those terms are likely to achieve the following objectives:

- promoting competition in markets for carriage services and for services supplied by means of carriage services
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users, and
- encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure by which telecommunications services are supplied, or are, or are likely to become, capable of being supplied.<sup>17</sup>

#### *Promoting competition in markets for carriage services and services supplied by means of carriage services*

The ACCC is of the view that a domestic benchmarking approach to setting regulated prices for the DTCS will promote competition and allocative efficiency for downstream markets in which the declared service is an essential input.<sup>18</sup>

The ACCC considers that the relevant DTCS markets include wholesale transmission and the range of retail services (that use transmission services) delivered over optical fibre. This includes the national long distance, international call, data and IP-related markets.<sup>19</sup>

The ACCC expects that lower prices in the DTCS FAD that, after adjusting for lower demand, mimic the cost efficiency achieved on competitive routes will serve to promote competition in DTCS markets by:

- ensuring new entrants are able to make efficient returns on investment
- ensuring access providers are able to recover the cost of maintenance for the long term integrity of the infrastructure
- ensuring access seekers are able to access transmission services at more efficient prices
- ensuring the economically efficient use of infrastructure, and
- improving access to cheaper wholesale transmission services which will promote competition in the downstream retail communications services which use those services.

<sup>17</sup> Sub-section 152AB(2) of the CCA.

<sup>18</sup> See sub-section 152AB(4) of the CCA.

<sup>19</sup> See also the 2014 DTCS declaration, p.27 and 2012 DTCS FAD, p.65.

The ACCC considers that lower DTCS FAD pricing will promote competition in regulated areas that will benefit both wholesale transmission markets, through increased demand, particularly for higher capacity services, and more investment, and also to downstream markets which rely on transmission services to deliver services to end-users. In regional areas, where distance and capacity are often determinants of higher prices, the lower FAD prices should promote competition.

In response to increased demand for transmission services with higher capacities and over longer distances, competition has delivered lower prices and more investment on deregulated routes. The ACCC expects similar benefits to emerge in uncompetitive /regulated routes where access to regulated transmission services is available. Where regulated access is available, access seekers are able to extend their core and access networks to provide services. Appropriate pricing of regulated access service ensures that access seekers are able to compete with incumbent service providers in areas where otherwise efficient entry would not be possible. In such areas, alternative service providers will not be deterred by prohibitive entry costs due to the sunk nature of large scale investments in transmission infrastructure. Access to transmission services at reasonable prices will facilitate competition, particularly in downstream markets in regulated areas, where transmission services are an essential input into other wholesale or retail products.

*Achieving any-to-any connectivity in relation to carriage services that involve communication between end-users*

The ACCC notes that the domestic benchmarking approach provides for regulated pricing which is based on the efficient cost of supply. The ACCC considers that cost-based pricing provides for access on reasonable terms and conditions which in turn will help to achieve any-to-any connectivity by encouraging the take-up of services and facilitating more interconnection between networks.

*Encouraging economic efficient use of, and economic efficient investment in, infrastructure used to supply the DTCS*

In considering whether the objectives of this criterion are met, the ACCC has had regard to the requirements set out in subsections 152AB(6) and (7A) of the CCA. In looking at the legislative factors, the ACCC has also considered the three components of economic efficiency: productive, allocative and dynamic efficiency.

The ACCC notes that the draft DTCS FAD price terms are based on key cost drivers affecting prices in competitive areas and as such, reflect prices that:

- have lower underlying costs, and thereby reflect an acceptable level of productive and allocative efficiency. Costs savings can then be used to innovate, improve productivity, reduce production costs and increase the range and quality of services for downstream customers
- represent competitive responses to technological improvements and changing access seeker requirements, such as growing demand for high data rates and Ethernet services, and therefore reflect an acceptable level of dynamic efficiency, and
- provide a return on the efficient costs of investment and reduce the risk of over or under recovery of efficient costs. The ACCC considers that this provides sufficient and appropriate incentives for efficient investment in infrastructure.

***The legitimate business interests of transmission providers***

The ACCC has taken account of the access providers' interest in earning a normal commercial return and in the recovery of costs of investment when considering the legitimate business interests of transmission providers in determining draft DTCS FAD price terms.

The ACCC considers that the proposed price terms adequately take account of the costs involved of providing high quality transmission services.

In terms of the delivery of services across the Bass Strait, the draft DTCS FAD price terms also provide an uplift in order to take account of the specific costs of delivering services over a submarine link (discussed in section 5.1 of this draft decision).

### ***The interests of all persons who have rights to use the declared service (access seekers)***

The ACCC has taken account of whether the draft DTCS FAD price terms are likely to put downward pressure on prices when considering the interests of access seekers. The draft FAD price terms allows for the negotiation of different quality services at lower prices for those access seekers that do not require the highest quality of service. The draft DTCS FAD also allows for prices to be set for services on a particular geographic route and with a particular data rate, network interface and distance. This means the draft DTCS FAD price terms can be used to determine prices that are tailored to the needs of access seekers' individual circumstances and thereby used to inform commercial negotiations and investment decisions. The ACCC considers that the proposed price terms are also sufficiently flexible to meet access seeker service requirements.

### ***The direct costs of providing access to the declared service***

Transmission networks use a lot of common elements with costs spread over both regulated and deregulated routes. The ACCC considers the prices of competitive services are a reasonable proxy of the costs of supplying services in a competitive environment with an appropriate rate of return. By using the pricing information on those effectively competitive routes to determine the prices on uncompetitive routes, the benchmarking approach is designed to mimic the cost efficiency achieved on competitive routes. This approach can be applied across a range of different capacities, distances route types and technologies.

The ACCC notes that prices set commercially in a competitive market allow access providers to recoup the costs incurred in providing services. While there may be some cost differences between transmission services supplied over different route types there are a sufficient number of routes of various types in the competitive areas from which benchmark prices can be derived. Such prices should enable the recovery of the direct costs of supply of DTCS services even in regulated areas.

Lower demand in uncompetitive areas is likely to be mitigated to some extent by the increase in demand for higher capacity transmission services more generally and the scale economies realised through the aggregation of traffic across broader geographical areas. To the extent that there may be differences in demand between deregulated and regulated areas, this can be accounted for in the regression model. Therefore, the ACCC considers that the benchmarking approach will enable the access provider to recoup the direct costs of providing access to the declared DTCS service.

### ***The economically efficient operation of a carriage service, a telecommunications network or a facility***

The ACCC considers that the price terms set out in the draft DTCS FAD promote the economically efficient operation of carriage services provided by access providers as well as those operated by access seekers using the DTCS to supply downstream services.

The way the draft DTCS FAD sets prices accounts for the levels of investment required to ensure that the DTCS operates at an economically efficient level. For instance, the regulated prices are based on competitive market prices that reflect levels that encourage efficient investment in and the operation of the DTCS. Further, draft regulated prices are not set too high so as to encourage unnecessary duplication of DTCS infrastructure. The ACCC therefore

considers that the draft DTCS FAD price terms are likely to promote the economically efficient operation of carriage services and telecommunications facilities.

### **3.3 Criteria for NPTCs**

The ACCC proposes a number of transparency and equivalency NPTCs for SLCs in Chapter 7 of this draft decision. Under the proposed NPTCs access providers are obliged to itemise costs to access seekers before commencing work on an SLC order. The ACCC has had regard to relevant legislative criteria when drafting the proposed NPTCs for SLCs. In particular, the ACCC considers that transparency and clarity over cost inputs is in the LTIE as costs are more likely to reflect the efficient cost of supply when the inputs are transparent. Providing itemised charges early on in the process will also provide for negotiation over pricing and services thereby promoting the legitimate business interests of the access provider and interests of the access seeker.

In terms of the common NPTCs which apply to the DTCS and other declared services, the ACCC refers to its decision on NPTCs (released on 24 August 2015) for its assessment of the legislative criteria. The ACCC's final decision and assessment against section 152BCA criteria can be found on the [ACCC website](#).

## 4 Benchmarking and the DTCS pricing model

### **Key points**

- The ACCC has decided to use a domestic benchmarking approach to set the regulated prices for the DTCS, as outlined in the ACCC's November 2014 DTCS pricing methodology position paper.
- The ACCC commenced the benchmarking process by collecting data from 11 providers of transmission services on a voluntary and confidential basis. The combined dataset contained 18 247 observations and around 40 variables for each observation.
- The ACCC engaged an external consultant Economic Insights to develop an econometric benchmarking model based on competitive transmission routes. The ACCC provided the model and dataset to a number of econometric experts engaged by industry under a strict confidentiality regime. These experts were consulted extensively throughout the process.
- In September 2015, Economic Insights submitted its final report to the ACCC recommending a new benchmarking model. The new model is similar to the 2012 FAD model, but with a number of important extensions and refinements.
- The ACCC proposes to accept the model recommended by Economic Insights. The pricing model sets the monthly maximum price that can be charged for a 12 month contract based on a number of contract characteristics such as the capacity and distance of the service.

The ACCC has undertaken a domestic benchmarking exercise to establish a model for determining the regulated prices for the DTCS. This chapter discusses the ACCC's decision to use a domestic benchmarking approach, its collection and treatment of benchmarking data and the development, in consultation with industry, of an appropriate econometric and pricing model.

### 4.1 ACCC decision to adopt a domestic benchmarking approach to DTCS pricing

On 7 November 2014 the ACCC released a position statement<sup>20</sup> outlining its decision to use a domestic benchmarking approach to set regulated prices for the DTCS. The ACCC reached this position after its consideration of submissions to the ACCC's discussion paper of 24 July 2014.<sup>21</sup>

Submissions to the July discussion paper broadly supported a domestic benchmarking approach, considering the time, resources and complexity of alternative cost-based approaches.<sup>22</sup> However, several stakeholders suggested that the ACCC should better explain the underlying rationale for adopting a domestic benchmarking methodology, consider refining and improving the regression analysis underpinning the benchmarking approach and consider a range of other pricing information to test the benchmarking results against.

<sup>20</sup> ACCC, *DTCS Public inquiry into making a final access determination - Position statement on pricing methodology*, November 2014 (2014 DTCS pricing methodology position paper).

<sup>21</sup> ACCC, *DTCS Final Access Determination Discussion Paper – Primary Prices*, July 2014 (2014 DTCS FAD primary prices discussion paper).

<sup>22</sup> A full discussion of submissions regarding the methodology to be adopted in pricing the DTCS is set out in the ACCC's November 2014 position statement on the pricing methodology for the 2015 DTCS FAD.

The ACCC's position statement sets out in detail the underlying rationale for adopting a domestic benchmarking approach. That is, transmission routes that have effective competition will have commercially determined prices for transmission services that reflect their supply costs, including a reasonable commercial rate of return. Further, competition on these routes will promote efficiency in supplying transmission services and provide incentives for dynamic efficiency improvements over time.

In using the pricing information on those effectively competitive routes to determine the prices on uncompetitive routes, the benchmarking approach is designed to eliminate the possibility of monopoly profits being earned on uncompetitive routes and to mimic the cost efficiency achieved on competitive routes.

In the position statement, the ACCC agreed with stakeholders that there was scope to refine and improve the regression analysis upon which domestic benchmarking is based. In light of these comments and as discussed below (section 4.2), the ACCC has sought additional pricing information from transmission service providers as part of its information requests for this FAD inquiry. The ACCC has also undertaken extensive consultation with industry and their statistical experts in developing the benchmarking model. These measures are intended to provide greater confidence in the development of the regression model and ensure that domestic benchmarking approach produces cost-reflective prices.

## 4.2 Data collection and management

In November 2014, the ACCC requested DTCS benchmarking data from 11 providers of transmission services. The ACCC's information request covered all transmission services supplied by the service provider on both regulated and deregulated routes meeting the technical requirements of the DTCS service description. Service providers were asked to provide information on actual price charged, including whether any discounts were applied, and particular service characteristics for all current transmission contracts as at 30 November 2014. All data collected from service providers in relation to this information request was provided voluntarily<sup>23</sup> and on a commercial-in-confidence basis.

Following submissions to the July 2014 discussion paper, the ACCC sought a wider range of information from access providers compared to the 2012 FAD. Several submissions to the July 2014 discussion paper suggested that the ACCC consider refining and improving the regression analysis underpinning the benchmarking approach and that the ACCC should collect a broader range of data from service providers. For example, VHA submitted that the ACCC collect data on all factors that may be considered to have a potential impact on the price of DTCS.<sup>24</sup> Similarly, NBN Co suggested that the ACCC should collect a dataset that is as wide as possible and recommended that additional information be collected to analyse the relationship between contract term and price.<sup>25</sup>

Several submissions highlighted areas for the ACCC to investigate that had not been considered in the 2012 FAD. For example, NBN Co recommended that the ACCC should consider how the location of the NBN Points of Interconnect (POI) affect price,<sup>26</sup> while Nextgen

---

<sup>23</sup> The ACCC notes that while some stakeholders have suggested that the ACCC use its mandatory information gathering powers to collect this information, the ACCC considered it unnecessary to use these powers in the situation.

<sup>24</sup> Vodafone Hutchison Australia (VHA), *Final Access Determination (FAD): the Domestic Transmission Capacity Service (DTCS), Primary Prices: Response to the ACCC* (public version), 26 September 2014, p.30.

<sup>25</sup> NBN Co, *Submission to the ACCC's DTCS Final Access Determination (FAD) Inquiry Discussion Paper – Primary Prices*, (public version) September 2014, p.7.

<sup>26</sup> NBN Co, *Submission to the ACCC's DTCS FAD Inquiry Discussion Paper – Primary Prices*, (public version) September 2014, p.8.

suggested the number of participants be considered.<sup>27</sup> The full list of data collected from services providers is presented in **Appendix C**.

Following the receipt of data from service providers, the ACCC de-identified and cleaned the data by removing incomplete observations and any services that did not satisfy the DTCS service description. The majority of the removed data related to:

- *Capacity (Megabits per second (Mbps))* — The ACCC declaration decision defines DTCS as a high capacity service acquired at data rates of 2Mbps or above. Observations were removed from the dataset where reported capacity was below 2Mbps.
- *Interface type* — Service providers were asked to identify the interface technology used for each DTCS contract. All observations using an interface that did not meet the technical requirements of the DTCS service description were removed.
- *Recurring monthly charge* — Providers were asked to supply the actual billing amount charged per month. Any observations with either a missing or zero monthly charge were removed. In the case of a zero monthly charge, the ACCC sought to clarify the reason for a zero charge with access providers. Where the zero monthly charge related to a bundling of services, the zero priced service and corresponding bundled services were removed from the dataset. Where the zero monthly charge related to problems regarding the quality of the data identified by the access provider, the ACCC also removed these observations from the dataset.
- *Other* — Observations were removed from dataset if the service was reported to be asymmetric, contended or a dark fibre service as they did not meet the DTCS service description.
- *Outliers* — The econometric consultants engaged by the ACCC (as discussed in section 4.3) identified a number of outliers in the dataset.<sup>28</sup> The ACCC sought clarification from service providers regarding these data points and removed them from the dataset where they related to contracts that were no longer current or were reported in error.

In regards to the de-identification process, the ACCC removed information from the dataset that would identify the customer (such as customer name and addresses) and service provider. De-identification of the data was a necessary condition of the data collection process. However, one of the limitations of this de-identification process was that the data used for the econometric modelling did not identify whether any single customers had contracts with multiple providers — thus limiting the ability to explore bundling effects as suggested by industry experts during the development of the regression analysis.

In line with submissions to the ACCC's July 2014 discussion paper, the ACCC also developed a number of possible demand and supply metrics for the purpose of investigating all possible drivers of prices not previously considered in the 2012 FAD process (the treatment of which is discussed later in this chapter). For example, Nextgen supported consideration of demand variables in the regression analysis, including the use of proxies. In their view the level of demand on a particular transmission route can be critical in understanding both the general pricing environment for transmission services and price differences between routes which otherwise appear to have similar characteristics.<sup>29</sup> Likewise, Telstra noted that demand variables such as population density, business and residential components and expected growth influence the level of transmission services required.<sup>30</sup> The ACCC calculated a number of possible demand and supply metrics from either the full confidential dataset (using both the 2014 and 2012 datasets) or from other data the ACCC collects on telecommunication services.

---

<sup>27</sup> Nextgen Group (Nextgen), *Submission on the DTCS Final Access Determination (FAD) Discussion Paper – Primary Prices*, September 2014, p.8.

<sup>28</sup> Outliers are observations that are unusually high or low compared to the other observations in the dataset.  
<sup>29</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.12.

<sup>30</sup> Telstra Corporation Limited (Telstra), *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.23.



The metrics calculated included items such as ‘average number of services in operation (SIO)’, ‘SIO density’ and ‘average number of providers’. A full list of metrics is set out in Appendix C.

The final 2014 DTCS dataset contained a total of 18 247 observations and around 40 variables for each observation.

## 4.3 Benchmarking analysis/regression

### 4.3.1 Experts engagement and consultation with industry

In January 2015, the ACCC engaged Economic Insights to provide advice and econometric modelling with the objective of developing a suitable model to determine efficient DTCS prices for regulated routes.<sup>31</sup> Economic Insights was tasked with developing a regression model that provides the best explanation of observed commercial prices on competitive routes.

In developing a suitable model, Economic Insights, was required to liaise with industry and experts engaged by industry prior to finalising its report. This included hosting a one day forum with stakeholders and seeking feedback from industry and their experts on Economic Insights’ draft report. Further information regarding the scope of work carried out by Economic Insights is included in section 1 of their final report.

To facilitate close engagement with industry experts in the development of an appropriate econometric and pricing model, the ACCC established a confidentiality regime allowing experts access to the confidential benchmarking data collated by the ACCC. As noted above, industry experts participated in a one day forum in April 2015, providing feedback on initial analysis and modelling conducted by Economic Insights. Experts also provided written submissions following the forum and in response to Economic Insights’ draft report which was circulated for comment 10 June 2015. While consultation with industry experts could not be conducted publically due to the confidential nature of the benchmarking data, the involvement of experts in the process was intended to assist the ACCC obtain a more robust regulatory outcome.

Economic Insights provided the ACCC with a copy of its final report in early August and a public version of its report is available on the ACCC’s website.

### 4.3.2 Development of regression analysis

Economic Insights’ preliminary analysis began by conducting exploratory data analysis on the dataset and re-estimating the 2012 FAD model. Using the 2012 FAD model developed by the previous consultants DAA (Data Analysis Australia Pty Ltd) as a starting point, Economic Insights then developed a new benchmarking model. The new benchmarking model developed by Economic Insights is largely consistent with the model used as part of the 2012 FAD, but with a number of important extensions and refinements. The development of Economic Insights’ econometric model is discussed in more detail below. The draft pricing model which is based on the econometric model is presented in section 4.4 of this chapter.

Economic Insights performed exploratory data analysis techniques on the dataset to establish a preliminary understanding of the underlying relationships in the data. In doing this Economic Insights reduced the pool of variables under consideration from around 40, down to around a dozen variables most likely to have a material impact on the price of transmission services.<sup>32</sup> The main conclusions of this analysis are as follows:

---

<sup>31</sup> Economic Insights was appointed following the ACCC assessment of quotes provided by a selection of econometrics firms on the ACCC’s supplier panel.

<sup>32</sup> The 19 variables included in Economic Insights’ final model are calculated from seven of these 40 underlying variables.



- capacity and distance were found to be the primary determinants of transmission prices in the DTCS market.<sup>33</sup> This result is consistent with the findings of the 2012 FAD.
- a number of variables were found to have no clear relationship with price and were not given any further consideration.<sup>34</sup>
- a number of variables were found to be highly correlated with each other.<sup>35</sup> Of the highly correlated variables, only those with the strongest relationship with price were given further consideration. A high correlation between two variables implies that each variable is measuring the same underlying price factor.
- the analysis also found evidence of a non-linear relationship between price and the primary price determinants (capacity and distance).<sup>36</sup>

Many of these conclusions were anticipated by submissions to the July 2014 discussion paper. For example a non-linear relationship between price and capacity was noted by VHA and Optus. VHA submitted that the 2012 FAD pricing model greatly overestimated the impact of high capacity services and failed to reflect economies of scale.<sup>37</sup> Similarly, Optus<sup>38</sup> and VHA<sup>39</sup> raised concerns with the appropriateness of the distance variable for all DTCS services.

Following the exploratory data analysis, Economic Insights re-estimated the 2012 FAD model developed by DAA using the 2014 dataset. The 2012 FAD model calculates the annual regulated DTCS price based on a number of characteristics. These characteristics are the capacity of the service (in Mbps), the radial distance between the A-end and B-end of the service (in km), whether the service is protected and the route type of the service (inter-capital, metropolitan or regional). DAA used Ordinary Least Squares regression analysis to estimate the log annual charge as a linear combination of log capacity, log distance and indicator variables for the other characteristics. The regression model also considered a four tiered Quality of Service variable (QoS) metric developed by the ACCC. The final 2012 DTCS pricing model was based on the top tier of this QoS variable (QoS1).

In re-estimating the DAA model used in the 2012 FAD, Economic Insights found that the updated 2012 FAD model did not accurately capture the non-linear relationship between price and the primary price determinants (capacity and distance) as identified during the exploratory data analysis of the 2014 dataset. Specifically, while the updated 2012 FAD model performed well for short and low capacity services, the model performed less well for long and high capacity services. Economic Insights concluded that changes in the DTCS market meant that the 2012 FAD model is no longer an appropriate model to determine the price of DTCS.<sup>40</sup>

In developing a new benchmarking model, Economic Insights used a general-to-specific modelling strategy.<sup>41</sup> This strategy involves starting with a general model with a large number of variables and then moving to a smaller model specification by removing variables that are found to not have a material impact on price. The general-to-specific modelling strategy allows the data to lead the analysis. Economic Insight then applied economic analysis to make further

<sup>33</sup> Economic Insights, *DTCS Benchmarking Model – Final Report prepared for ACCC*, 1 September 2015 (Economic Insights final report), p.8.

<sup>34</sup> Excluded variables include whether the transmission begins or ends in close proximity to an NBN Point of Interconnect (POI) (*NBN POI*) and the number of copper fixed line Services in Operation (SIOs) in proximity to the A-end and B-end of transmission (*average number of SIOs*).

<sup>35</sup> For example, Economic Insights found that on a certain route, a provider's aggregate capacity was highly correlated with the aggregate capacity of all providers.

<sup>36</sup> Economic Insights final report, p.35.

<sup>37</sup> VHA, *Final Access Determination (FAD): the DTCS Primary prices - Response to the ACCC* (public version), 26 September 2014, p.16.

<sup>38</sup> SingTel Optus Pty Ltd (Optus), *Submission in response to DTCS Final Access Determination (FAD) – Primary Prices* (public version), September 2014, p.26.

<sup>39</sup> VHA, *Final Access Determination: the DTCS Primary prices - Response to the ACCC* (public version), 26 September 2014, p.31.

<sup>40</sup> Economic Insights final report, p.33.

<sup>41</sup> Economic Insights final report, p.43.

refinements to the model. The variables identified through this process, as having a material impact on price, are presented in section 4.3.3.

The preferred model presented by Economic Insights is consistent with the 2012 FAD model in a number of ways. For example, capacity and distance remain the primary determinants of price. However, as noted a number of additions have been made that significantly improve the fit of the model to the 2014 data. The extensions are broadly to control for outliers, route-specific heterogeneity and the observed non-linear relationships between price and the primary price determinants (capacity and distance), which are explained in more detail below.

Firstly, Economic Insights trialled a variety of regression techniques, such as quantile regression analysis, to limit the influence of any outliers that were still present in the data and had undue influence in the model.<sup>42</sup> They also investigated the validity of using a random effects model to control for any unobserved route specific effects that are not already captured in the model.<sup>43</sup> There was general consensus during the technical forum that evidence supported the use of random effects to capture route-specific heterogeneity.

Secondly, to account for the non-linearity between price and the primary price determinants, higher-order terms for both capacity and distance were considered.<sup>44</sup> The higher order term for capacity allows the variables to affect price differently for low and high capacity services. Similarly, the higher order term for distance allows the variable to affect price differently for short and long services. An interaction term between distance and capacity was also considered.<sup>45</sup> The interaction term allows capacity to affect price differently for short distances than for long distances. This methodology was presented to industry at the technical forum held in April 2015. There was general consensus among the experts that the use of higher order terms was appropriate.

Economic Insights' preferred model has taken into consideration the feedback provided by industry and their experts during an extensive but closed consultation process.<sup>46</sup> Overwhelmingly, stakeholders and their experts argued that in addition to performing as a reasonable predictor of prices for regulated routes, the benchmarking model needs to be both transparent and easy to apply in a regulatory context by a broad range of stakeholders. The ACCC notes that while all comments made by stakeholders and their experts were given due regard by the ACCC and Economic Insights, many of these views varied significantly and there was not always consensus amongst experts as to how best to develop certain aspects of the benchmarking model. This required the ACCC, in consultation with Economic Insights, to make a number of decisions considering the matters set out under s 152BCA(1) of the CCA, including the promotion of the LTIE.

### 4.3.3 Key findings

The following sections describe the statistically significant variables included in the preferred benchmarking model (section 4.3.3.1) and those variables that were not found to be statistically significant (section 4.3.3.2).

#### 4.3.3.1 Statistically significant variables

The econometric modelling conducted by Economic Insights specified a DTCS pricing model with 19 statistically significant explanatory variables.<sup>47</sup> That is, it found that 19 explanatory variables had a material impact on the monthly DTCS price. These 19 explanatory variables are based on seven underlying variables which includes the primary price determinates

---

<sup>42</sup> Economic Insights final report, pp.39-40.

<sup>43</sup> Economic Insights final report, p.40.

<sup>44</sup> The higher order terms are calculated as  $0.5 \times \log(\text{capacity})^2$  and  $0.5 \times \log(\text{distance})^2$ .

<sup>45</sup> The interaction term is calculated as  $\log(\text{capacity}) \times \log(\text{distance})$ .

<sup>46</sup> Economic Insights final report, pp.43-46.

<sup>47</sup> Economic Insights final report, pp.46-48.

identified in section 4.3.2 (capacity and distance) and other explanatory variables that have an impact on price are included to improve the accuracy of the pricing model.

The seven underlying variables of the preferred model are as follows:

- Capacity (Mbps): the data rate of the connection measured in Megabits per second
- Distance (km): the radial distance between the A-end ESA and B-end ESA
- Route type: identifies whether the route is inter-capital, metropolitan (metro) or regional, based on the DTCS service description
- Interface type: identifies whether the services is either Ethernet or Synchronous digital hierarchy (SDH)
- Service provider variable: identifies the provider of each service
- Route throughput (Mbps): the total reported capacity for each route in the dataset
- ESA throughput (Mbps): the total reported capacity for each ESA in the dataset.

The following section sets out Economic Insights findings in relation to these seven underlying variables. The ACCC has also calculated the marginal effects of each variable based on Economic Insights preferred model to assist the reader in interpreting how these variables affect the price of DTCS. Some comments provided by stakeholders in response to the July 2014 discussion paper have also been discussed below.

### *Capacity*

Economic Insights found capacity to have a strong positive effect on price. Assuming all other variables are held constant at their mean, increasing capacity by 10 Mbps will on average increase the monthly DTCS price by approximately \$38.<sup>48</sup> Economic Insights also found evidence of a non-linear relationship between price and capacity. This non-linear relationship can be seen through the results that increasing capacity from 10 Mbps to 20 Mbps increases the monthly price by approximately \$302, while increasing capacity from 990 Mbps to 1000 Mbps increases the monthly price by approximately \$10.

### *Distance*

Economic Insights found that distance has a strong and positive effect on the price of DTCS. Increasing distance by 10km (while holding all other variables constant at their mean) will on average increase the monthly DTCS price by approximately \$10.<sup>49</sup> Similar to capacity Economic Insights findings indicate a non-linear relationship between price and distance. Assuming all other variables are held constant at their mean, increasing distance from 10 km to 20 km increases the monthly price by approximately \$76, while increasing capacity from 990 km to 1000 km increases the monthly price by approximately \$3.

### *Route type*

Consistent with the 2012 methodology, each observation in the dataset has been classified into one of three geographic categories. These route type categories were designed to broadly reflect market practice and to capture any systematic structure differences in the cost of delivering DTCS. These categories were reconsidered as part of the ACCC 2014 declaration inquiry and are specified in the DTCS service description as follows:

---

<sup>48</sup> This average marginal effect is calculated as the average effect on price of increasing capacity by 10Mbps units between 2Mbps up to 1000Mbps, while holding are other variables constant at their mean values.

<sup>49</sup> This average marginal effect is calculated as the average effect on price of increasing distance by 10km units between 1km up to 1000km, while holding are other variables constant at their mean values.

- Inter-capital: a route from an ESA within the boundary of a capital city to an ESA within the boundary of another capital city
- Regional: a route where either or both the A-end and B-end are outside the boundary of a capital city
- Metropolitan: a route where both the A-end and B-end are within the boundary of a capital city

Economic Insights found that both metropolitan and regional routes are on average more expensive than an equivalent inter-capital route. The average price difference relative to the inter-capital classification is 17 per cent higher for metro, approximately \$88, and 31 per cent higher for regional, approximately \$219.<sup>50</sup>

The ACCC notes that these findings contrast with the 2012 FAD in which metro routes were found to be cheaper than inter-capital. One explanation for this finding is that the underlying cost difference between metro and inter-capital routes has reversed between 2012 and 2014. Another explanation is that the collection of routes categorised as metro under the 2014 DTCS declaration is considerably different than the metro category used in the 2012 FAD. This is because the 2014 DTCS declaration deregulated a considerable number of previously regulated routes that either start or end in the metro fringe of a capital city.

The ACCC has decided to retain the route type methodology of the 2012 FAD. An alternative approach based on a route matrix similar to that used by Telstra for its Managed Leased Line (MLL) service was canvassed in the ACCC's July 2014 discussion paper and is discussed in section 5.6 of this report.

### *Interface type*

Economic Insights used a set of indicator variables to test whether the price of transmission services using different interface types such as SDH (synchronous digital hierarchy) and EoSDH (Ethernet over SDH) are statistically different to transmission services using an Ethernet interface.

Testing the effect of interface type on price was recommended by some submissions to the ACCC's July 2014 discussion paper. For example, Optus noted that some international regulators (such as in the United Kingdom and European Union) set different prices for interface types and submitted that including interface categories could improve the DTCS pricing model.<sup>51</sup> In contrast, some stakeholders, including Nextgen<sup>52</sup> and Telstra<sup>53</sup>, submitted that SDH and Ethernet services are similarly priced in the market. For instance, Telstra submitted that unless statistical evidence suggests otherwise, the ACCC should follow the 2012 methodology and set a common price for interface types.

Statistical testing by Economic Insights found that the price difference between EoSDH and Ethernet was not statistically significant and the two technology types have been grouped together in the preferred model.<sup>54</sup>

Conversely, the price difference between SDH and Ethernet was found to be statistically significant. Assuming all other variables are held constant, the SDH is estimated to increase the monthly DTCS price by approximately \$198 above the price of Ethernet.<sup>55</sup>

<sup>50</sup> These average marginal effect of route type is calculated as the average effect on price of either metro or regional route categories relative to the inter-capital category, while holding are other variables constant at their mean values.

<sup>51</sup> Optus, *Submissions in response to DTCS FAD – Primary Prices* (public version), September 2014, p.19.

<sup>52</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, (September 2014), p.8.

<sup>53</sup> Telstra, *2014 DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.20.

<sup>54</sup> Economic Insights final report, p.86.

<sup>55</sup> Calculated while holding are other variables constant at their mean values.

### *Service provider variable*

To account for the high degree of firm specific heterogeneity in the DTCS market, Economic Insights modelled a group of indicator variables that identify the service provider, holding the median provider as a reference point. Economic Insights tested these firm specific variables individually and found that not all variables were statistically significant. However, Economic Insights also tested these firm indicator variables together as a group and found them to be statistically significant as a collective.<sup>56</sup>

The use of a collective service provider indicator variable is new to the 2015 model and seeks to replace and improve on the QoS metric used in the 2012 FAD. The QoS metric was developed by the ACCC to capture the different levels of network coverage, range of services and the availability and reliability of services offered by different DTCS providers. The ACCC then used this QoS measure to set regulated prices at the highest quality. This was done to ensure that regulated prices did not systematically under price a large proportion of regulated services which are provided using a rigorous and robust transmission network.

Some submissions to the ACCC's July 2014 discussion paper, namely Telstra<sup>57</sup> and Nextgen<sup>58</sup>, supported the 2012 QoS methodology. However, during the technical forum in April, some experts engaged by industry raised concerns that the name QoS was misleading. There was also general consensus that the variable was in fact a restricted proxy for provider and that an unrestricted set of provider variables would better capture firm specific heterogeneity.

### *Route and ESA throughput*

Route and ESA throughput are conditioning variables included in the econometric model to capture any economies of scale (or diseconomies of scale) in the provision of the DTCS. Route throughput was calculated by the ACCC as the aggregate capacity of all contracts supplied on a given route by all providers. ESA throughput likewise was calculated by the ACCC as the sum of the reported capacity of every contract on routes with the relevant A-end or B-end ESA. Route and ESA throughput were two of the possible demand and supply metrics the ACCC requested Economic Insights to consider.

As the route and ESA throughput variables are new for the 2015 FAD, submissions to the ACCC's July 2014 discussion paper did not comment on their inclusion. However, during the technical forum held in April, the experts engaged by industry raised concerns that both route and ESA throughput capture only reported DTCS capacity and not self-provisioned or non-DTCS capacity.

Economic Insights found a negative relationship between route throughput and price and a positive relationship between ESA throughput and price. That is, holding all things constant, the price of DTCS is lower on routes with higher aggregate capacity. Conversely, the price of DTCS was found to be higher on routes with higher aggregate capacity at the relevant ESAs if all else is held constant.

#### **4.3.3.2 Statistically insignificant variables**

The remaining variables Economic Insights tested were excluded from the model either because they had no clear relationship with prices, or were not considered statistically significant or economically relevant.

The majority of the demand and supply variables, with the exception of route and ESA throughput, were dropped from the model as they were found to be highly correlated with other variables that had a more significant impact on price. A high correlation between two variables

---

<sup>56</sup> Economic Insights final report, p.50.

<sup>57</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p. 21.

<sup>58</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, pp. 9-10.

implies that each variable is measuring the same underlying price factor and that including both could undermine the modelling process.

As discussed above, Economic Insights, through its development of its regression analysis, eliminated a large number of variables as potential candidates for the model. However, Economic Insights identified a number of borderline variables that were given further consideration during the development of an appropriate benchmarking model. These variables were contract start date and term, and protection, which are discussed in more detail below.

### *Contract start date and contract term*

As noted in the 2012 FAD inquiry process and again in response to the ACCC's July 2014 discussion paper, stakeholders observed an inverse relationship between the length of contract term and prices for the DTCS. For example, Optus observed that contract length played an important role in the pricing of transmission services and prices were cheaper on longer term contract.<sup>59</sup> NBN Co suggested that the ACCC should investigate the relationship between price, contract term and contract start date, as part a broader domestic benchmarking approach.<sup>60</sup>

Following comments from stakeholders the ACCC collected data from services providers on the following and requested that Economic Insights consider these in its regression analysis:

- Commencement date of contract—that being the start date of the service contract.
- Contract term— which relates to the duration of the contract in months and any conditions relating to this term.

Economic Insights found evidence of a weak statistically significant relationship between the monthly price and contract term. However, this weak significance failed to meet the strict definition of statistical significance that was recommended by experts during the technical forum in April. Based on this strict definition of statistical significance, the contract term variable was dropped from the final model.<sup>61</sup>

Economic Insights did find a highly statistically significant relationship between price and contract start date. In line with prior expectations, and stakeholder submissions, this relationship was found to be negative such that prices were found to be less for equivalent contracts starting at a later date. As set out in Economic Insights' final report, one of the three models presented include contract start date as a variable.<sup>62</sup> However, this variable was not retained in the model recommended by Economic Insights.

During the development of the benchmarking model, industry and their experts raised concerns over the quality of the data collected in relation to contract start date. This in turn, casts doubt on the reliability of this variable and it was subsequently removed from the recommended model. Specifically, **[c-i-c starts] [c-i-c ends]**.

### *Protection*

The 2012 FAD and its underlying regression model included protection as one of the variables determining price. The 2012 FAD sets regulated prices depending on whether a protected or unprotected service was being acquired from the service provider. Protection refers to the existence of a back-up or redundancy service that is used in the event of a service interruption.

The ACCC looked at the issue of protection again as part of the 2015 FAD inquiry. Stakeholders to the ACCC's discussion paper suggested that the ACCC should collect data on

---

<sup>59</sup> Optus, *Submission in response to DTCS FAD – Primary Prices Discussion Paper* (public version), September 2014, p 27.

<sup>60</sup> NBN Co, *Submission to the ACCC's DTCS FAD Inquiry Discussion Paper – Primary Prices* (public version), September 2014, p.6.

<sup>61</sup> Economic Insights final report, p.89.

<sup>62</sup> Economic Insights final report, p.48.



protection from service providers. Some stakeholders, such as Nextgen<sup>63</sup>, noted that protection can be provided for in various ways (i.e. electronically, via separate paths or customer management), and different providers have different capabilities in relation to this service attribute. Based on this feedback the ACCC, as part of its 2014 information, collected data from services providers on the type of protection they provided on services reported as of 30 November 2014.

Economic Insights in its exploratory data analysis observed that the majority of services reported providing some degree of geographic protection (71.4 per cent), while only a small proportion of services were reported as providing electronic protection (1.3 per cent). Economic Insights also observed that the proportion of protection offered on declared and deregulated routes had declined since 2012 and that there is a much higher rate of protection on the regulated routes than on deregulated routes.<sup>64</sup>

When Economic Insights went on to do further testing of the protection variable, it found some inconsistent results with the assumption that providing protection involves additional costs. Economic Insights suggested that one interpretation of these results was that protection tends to be available on routes where it can be more easily provided. Nevertheless, due to these inconsistent results Economic Insights, decided not to include a protection variable in the final model.<sup>65</sup>

#### 4.3.4 Other modelling considerations

Stakeholders requested the ACCC consider a wide range of issues in developing an appropriate DTCS benchmarking model. However, due to the inherent limitations with the DTCS dataset, it was not possible to model a number of these issues. The issues discussed in the following sections are the ACCC's consideration of dynamic pricing and whole-of-business discounts. Discussion of tail-end pricing is presented in the section 5.2 of this report.

##### *Dynamic pricing*

In its July 2014 discussion paper, the ACCC invited comment on whether a dynamic pricing trend should be considered in either the econometric or pricing model. Submissions generally agreed that commercially negotiated prices were likely to change over the course of the 2015 FAD. For example, VHA submitted in favour of a pricing model that reflected the expected changes in price across the FAD term. They noted that there are significant costs involved with re-negotiating DTCS prices and submitted that forward looking prices would reduce these costs.<sup>66</sup>

However, there was no consensus among submissions on how to address expected changes in prices. Telstra, citing a number of reasons, submitted that a price trend would not be appropriate with the data available.<sup>67</sup> Nextgen suggested that the ACCC should consider a mid-term review rather than attempt to factor expected changes in price into the FAD on an ex-ante basis.<sup>68</sup> NBN Co submitted that the ACCC should either consider econometric techniques to model expected price changes or empirically test a suitable approach to incorporate price trends over the life of the FAD.<sup>69</sup>

In consideration of the issue, Economic Insights decided to use econometric techniques to investigate whether introducing a dynamic pricing trend was possible given the available data.

---

<sup>63</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.9.

<sup>64</sup> Economic Insights final report, p.13.

<sup>65</sup> Economic Insights final report, p.31.

<sup>66</sup> VHA, *FAD: the DTCS Primary prices - Response to the ACCC* (public version), 26 September 2014, p.29.

<sup>67</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.32.

<sup>68</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.9.

<sup>69</sup> NBN Co, *Submission to the ACCC's Domestic Transmission Capacity Service Final Access Determination Discussion paper – Primary Prices* (public version), September 2014, p.5.

Economic Insights considered two approaches to capturing price trends. One approach was to examine the differences between the 2012 and 2014 dataset, and the other was to examine whether contract's start date (as a proxy for changes over time) had any statistically significant effect on price. These approaches are discussed below.

The first approach taken was to combine the 2012 and 2014 datasets and construct a variable that identified to which dataset an observation belonged. This variable was found to be highly significant.<sup>70</sup> However, the experts engaged by industry raised a number of concerns with this approach. Firstly, the experts noted that by combining the 2012 and 2014 datasets, the econometric analysis was unable to consider any variables not collected for the 2012 FAD. This could restrict the final model's applicability and predictive prices. Secondly, the experts noted that this methodology could capture any difference between the datasets, such as different data collection methods, and not just technology change. They noted that this was compounded by the significant changes that had occurred in the DTCS market between 2012 and 2014.

The second approach Economic Insights used to consider a dynamic pricing trend was to estimate what effect a contract's start date had on prices. If contract start date was to have a negative effect on price, this would indicate that negotiated prices had fallen over time. However, as noted above, concerns were raised by some stakeholders regarding how different service providers recorded and kept data on contract start dates.

Given the inherent limitations with the data available, Economic Insights were unable to develop an appropriate method to introduce dynamic pricing. The ACCC notes that one option to address these data limitations going forward would be to collect data from service providers more regularly by introducing a Record Keeping Rule under section 151BU of the CCA or collecting data via its mandatory information gathering powers, under section 155 of the CCA. Both options would increase the regulatory burden on transmission service providers. The ACCC at this stage does not favour this option but seeks stakeholder feedback on such a proposal.

### *Discounts and rebates*

The ACCC's July 2014 discussion paper noted that the 2012 FAD dataset contained a variety of discounts that the ACCC was unable to identify. In response to a number of submissions from stakeholders regarding the effect that discounts and rebates have on price – including Optus<sup>71</sup> and VHA<sup>72</sup> – the ACCC sought greater clarity on the issue for the 2015 FAD process. As noted above in section 4.2, the ACCC asked service providers to provide information on the actual price charged for each service, whether any discounts had been applied and the extent of any discounts.

However, the majority of service providers were unable to provide detailed information on which discounts applied to each contract. For example, some stakeholders noted in their data submissions to the ACCC that certain discounts are applied on a whole-of-business or whole-of-deal basis. These discounts can be quite complex and are contingent on a number of factors. They further submitted that associating these discounts to a specific transmission service would not be appropriate.

### *Request to consider further pricing information*

On 27 July 2015 the ACCC received a request to consider additional pricing information that had not been included in the original benchmarking data provided to Economic Insights and industry experts. Specifically Optus and VHA jointly wrote to the ACCC advising that they became aware of further pricing information for services that meet the service description for

---

<sup>70</sup> Economic Insights final report, p.33.

<sup>71</sup> Optus, *Submission in response to DTCS FAD – Primary Prices Discussion Paper* (public version), September 2014 p.28.

<sup>72</sup> VHA, *FAD: the DTCS Primary prices - Response to the ACCC* (public version), 26 September 2014, pp.21-22.



DTCS but had not been included in the benchmarking data provided to the ACCC. Optus and VHA requested that this additional data be considered for inclusion in the regression analysis used to determining regulated DTCS prices.

Due to the timing of this request, the ACCC has not been able to assess whether this information (or certain parts of it) should be included in the regression analysis. For this reason, the additional data has not yet been incorporated into the benchmarking dataset, or factored into Economic Insights' analysis.

The ACCC will work with Economic Insights and stakeholders (including experts engaged by industry) on whether it would be appropriate to include the additional information in the benchmarking dataset and any subsequent changes to the benchmarking analysis and pricing model.

## 4.4 DTCS pricing model

### *Economic Insights' pricing model*

As discussed in section 4.3, Economic Insights found seven variables to have a significant impact on price. These included: capacity, distance, route throughput, ESA throughput, route type, interface type and provider. Based on its findings of the statistical relationship between the price and the significant explanatory variables, Economic Insights present two preferred pricing models in section 6.2 of its final report,<sup>73</sup> including the model presented below in equation 4.1.

#### Equation 4.1

$$\begin{aligned} \text{Monthly charge} = & 1.1536 \cdot \exp\{a + 0.492\ln C + 0.095\ln D \\ & - 0.035(\ln C)^2/2 + 0.014(\ln D)^2/2 \\ & - 0.004(\ln C \ln D) + 0.243I\} \end{aligned}$$

Where:

- C is capacity
- D is Distance
- If inter-capital route  $a = 5.0635$
- If metropolitan route  $a = 5.1738$
- If regional route  $a = 5.3170$
- If metropolitan tail-end  $a = 5.1404$
- If regional tail-end  $a = 5.2815$
- If the interface type is SDH  $I = 1$

In addition to some of the key differences already discussed between Economic Insights' preferred model and the DAA model used in the 2012 FAD—Economic Insights' model sets the regulated price on monthly basis, rather than an annual basis.

Economic Insights in developing its preferred pricing model has treated a number of explanatory variables as constant. For simplicity and ease of application Economic Insights proposes<sup>74</sup> holding route throughput, ESA throughput and provider constant by:

- fixing the pricing model at the median provider to reflect competitively negotiated prices and to control for atypical characteristics associated with some of the small providers who are represented as outliers either side of the median

<sup>73</sup> Economic Insights presents three models in section 5.3 of its final report, however model 1 of table 5.1 is not considered in section 6.2 because it includes the contract start date variable which was identified by stakeholders to be problematic (as discussed in section 4.3.3.2 of this document).

<sup>74</sup> Economic Insights final report, p. 54.

- combining the average regulated route throughput and ESA throughput for each route-type with the regression constant. These variables need to be averaged and set as constants because route and ESA throughput were calculated by the ACCC using confidential data and as such are not available on a disaggregated basis.

When using the draft DTCS pricing model developed by Economic Insights to calculate the regulated price, the user will be required to enter into equation 4.1 the capacity, distance, route type and interface type for the relevant service being provided.<sup>75</sup> The pricing model is intended to apply to regulated routes declared in the ACCC's 2014 domestic transmission capacity service declaration.

### ***ACCC draft decision***

The ACCC's draft decision is to adopt equation 4.1<sup>76</sup> for the purpose of setting prices for regulated routes. The other preferred model proposed by Economic Insights is similar to equation 4.1 but with route throughput and ESA throughput dropped from the model.<sup>77</sup> The ACCC considers equation 4.1 the most appropriate model for setting regulated prices as it recognises that regulated routes typically have lower throughput than competitive routes. The model accounts for the different economies of scale in regulated routes through the route throughput and ESA throughput variables.

As noted in section 3.2 and 4.1, the ACCC is of the view that a domestic benchmarking approach will promote efficiency in supplying transmission services and provide incentives for dynamic efficiency improvements over time by setting the price of regulated routes according to competitive routes that reflect the cost of supplying efficient services. The regulated price, which has taken into account all the cost drivers of price in competitive markets, will:

- promote competition in the regulated markets by ensuring that new entrants are able to make an efficient return on their investment
- ensure that, after adjusting for lower demand in regulated areas, the access providers are able to recover the cost of maintenances and supply for the long term integrity of the infrastructure
- ensure that access seekers are able to access transmission services
- encourage the economically efficient use of infrastructure, and
- and promote competition in the downstream markets.

Economic Insights in developing their preferred regression model has taken into account all relevant information on cost drivers, demand and how prices are set on competitive routes, as well as feedback provided by stakeholders and their statistical experts. The regression model reflects the fact that both deregulated and regulated routes have a mix of high and low levels of demand. However, on regulated routes, low levels of demand occur together with limited or, in some cases no, competition, which in turn leads to potential monopoly pricing. The domestic benchmarking approach seeks to promote the LTIE by developing a regression model that adjusts for differences in economies of scale and mimics the cost efficiency achieved on competitive routes to ensure that access seekers are able to access the infrastructure on uncompetitive routes at a price comparable to a competitively negotiated price. The regression model is appropriate because regulated and deregulated routes use common elements of the transmission network. The price calculated by the regression model will reflect efficient costs in deregulated areas and encourage efficient use by end-users, promote competition in downstream markets and provide access providers with sufficient incentive to invest.

---

<sup>75</sup> To aid in applying the pricing model, the ACCC has made a draft DTCS pricing calculator available on the ACCC website.

<sup>76</sup> Labelled Model 2 in Economic Insights final report, p. 53.

<sup>77</sup> Labelled Model 3 in Economic Insights final report, p. 55.

Economic Insights' preferred regression model which takes into account more up to date pricing information than the 2012 FAD reflects productivity gains in the last three years and predicts generally lower prices than the previous model. This will continue to put downward pressure on prices in the wholesale transmission and downstream markets.

The ACCC's view is that that Economic Insights' preferred model, developed for the purpose of pricing DTCS services, fits the available 2014 data on deregulated routes better than the model developed in 2012 (as discussed in section 4.3). Economic Insights preferred model better captures the underlying non-linear relationship between the characteristics of the DTCS service and the price of the services. In particular, the preferred model performs better when predicting at the higher price range.

In Economic Insights' final report they note that there is no statistical basis for adjusting the regulated price from the mean predicted value as calculated by Economic Insights preferred pricing model. The ACCC supports this view and considers it appropriate to set regulated prices according to the mean predicted value as calculated by equation 4.1. The ACCC considers that the mean predicted value balances the risk of setting prices too high or too low. The ACCC is not persuaded that there is sufficient evidence from stakeholders in support of adjusting the price from the mean predicted value.

The ACCC also propose that, similar to the 2012 DTCS FAD, equation 4.1 will be used to set the regulated price for a 12 month contract on a regulated route according to the ACCC's 2014 domestic transmission capacity service declaration. The ACCC considers that the 12 month contract will provide adequate certainty to both the access seeker and the access provider. Stakeholders (including Telstra<sup>78</sup> and Nextgen<sup>79</sup>), in response to the 2015 DTCS FAD discussion paper, were generally supportive of the pricing model setting prices for a 12 month contract period. We note that access seekers may be able to negotiate prices that are lower than the regulated price by seeking a longer term contract or by bundling services.

The ACCC is seeking stakeholders' views on the simplification of the pricing model and the proposed treatment of the route throughput, ESA throughput and provider variables. The ACCC acknowledges that these simplifications enable easier application of the pricing model. The ACCC would also like stakeholders' views on whether interface type should be allowed to vary or whether to fix interface type at Ethernet (zero). There may be some merit in setting the regulated price on the basis of Ethernet as the interface type as Ethernet is the newer technology and is increasingly used in preference to SDH. Ethernet may also be more efficient and cost effective than SDH.

### ***Price impact of Economic Insights' draft pricing model***

Charts 1 to 4 below provides a comparison of the predicted annual charge using the 2012 FAD model (DAA's 2012 model) and the draft 2015 pricing model (Economic Insights' 2015 model) for a number of indicative services. The protection variable in the 2012 model was entered into the model as the population average on regulated routes.<sup>80</sup>

Charts 1 to 4 show that the draft 2015 model generally predicts lower prices than the 2012 FAD model. The difference between predicted prices for the 2012 model and the draft 2015 model increases for higher distances and higher capacities.

The ACCC notes that caution must be used when interpreting the price impact for a number of reasons. Firstly, the 2012 prices are derived from a different set of deregulated routes than the 2014 prices.<sup>81</sup> Secondly, the 2012 model and the 2014 model are estimated from a different set

<sup>78</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.12.

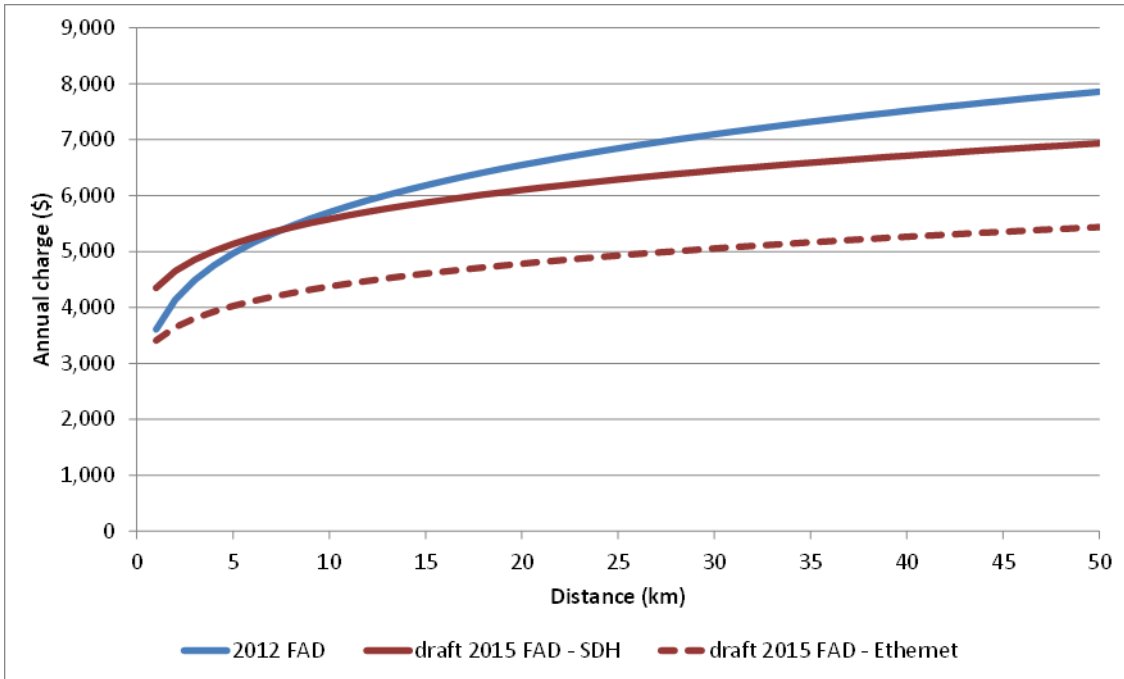
<sup>79</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.12.

<sup>80</sup> Protection = 0.804 in the 2012 model.

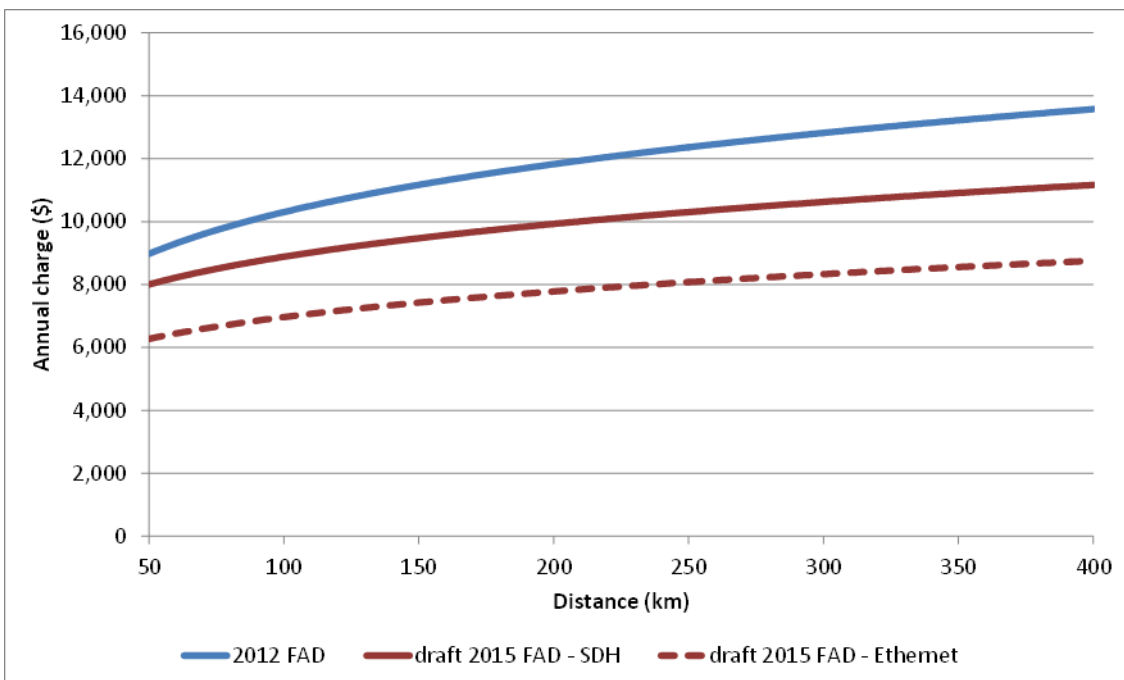
<sup>81</sup> The 2014 DTCS declaration deregulated an additional 88 metropolitan ESAs and eight regional routes while it reregulated three regional routes.

of variables. The 2012 model includes a variable for protection which was found to be insignificant in 2014. The 2014 model includes a variable for interface type which was not included in 2012.

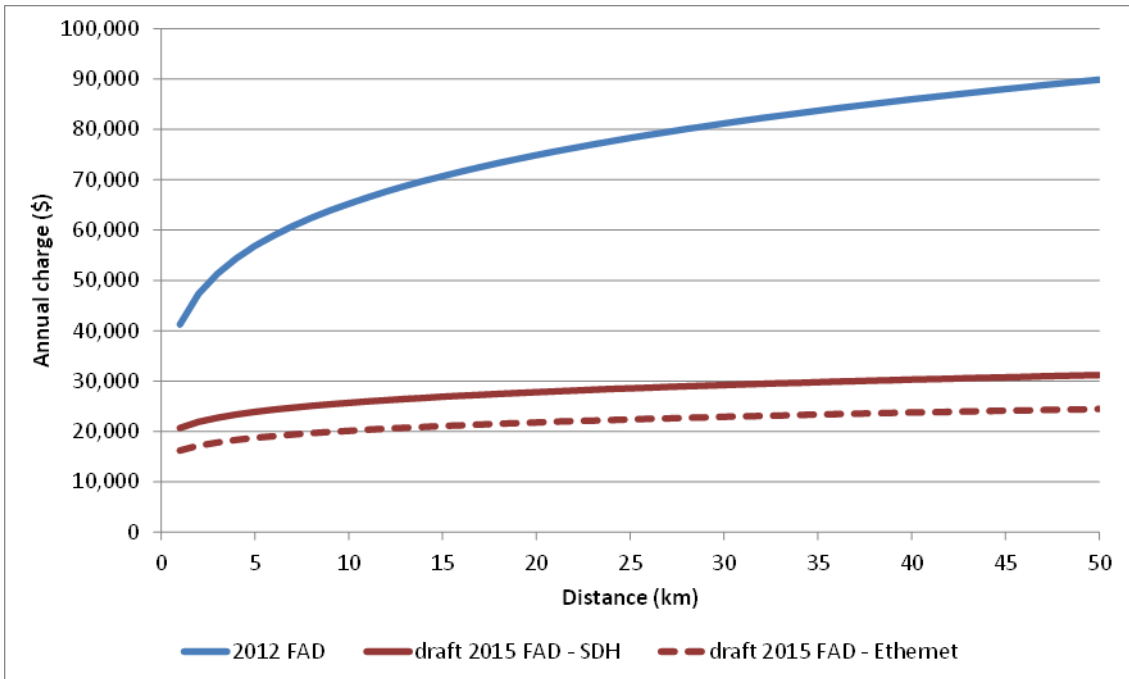
**Chart 1 – Comparison of 2012 FAD and draft 2015 FAD regulated price – Metropolitan 2Mbps**



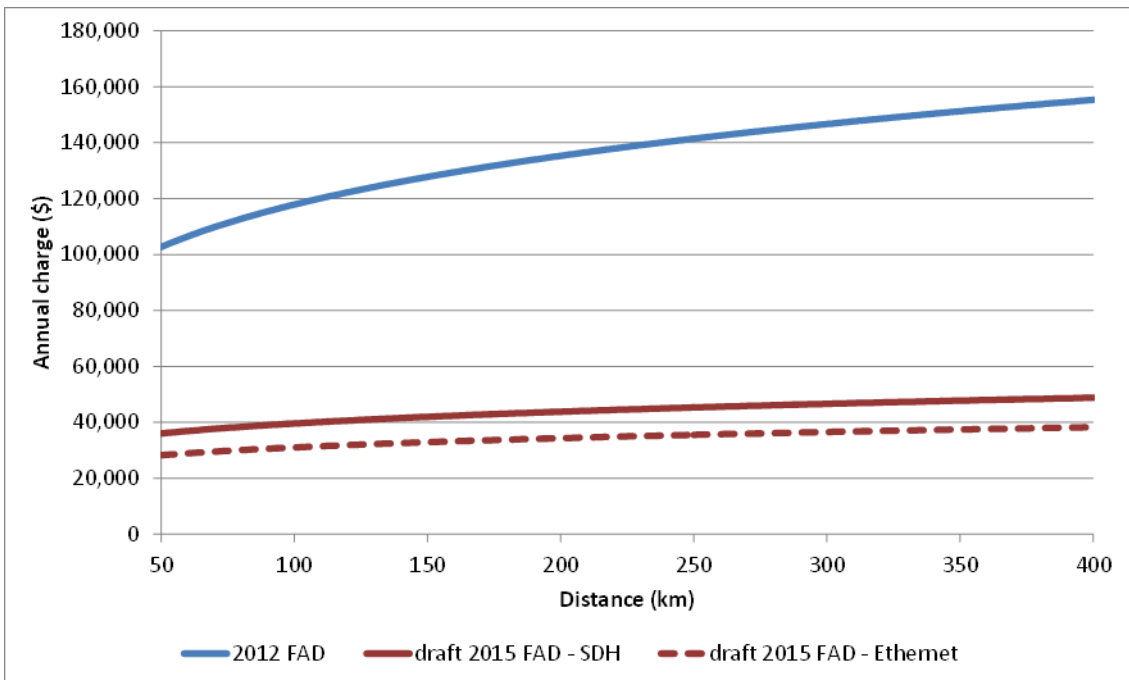
**Chart 2 – Comparison of 2012 FAD and draft 2015 FAD regulated price – Regional 2Mbps**



**Chart 3 – Comparison of 2012 FAD and draft 2015 FAD regulated price – Metropolitan 100Mbps**



**Chart 4 – Comparison of 2012 FAD and draft 2015 FAD regulated price – Regional 100Mbps**



## 5 Other price considerations

### **Key points**

- The ACCC has made a number of other draft pricing decisions relating to the DTCS which were not considered in detail by ACCC's consultant during its development of the regression analysis. These other pricing matters relate to the Bass Strait link, tail-end services and connection charges. In the absence of specific alternatives the ACCC has decided to retain its 2012 approach to pricing specifically, the ACCC draft decision is to:
  - Maintain a 40 per cent uplift on the pricing models regional route output for Bass Strait. However, this uplift is only applicable to the undersea proportion of the link between the mainland and Tasmania to account for the higher costs in provisioning and maintaining the undersea cable link.
  - Regulate connection charges depending on data rate and interface type. These regulated charges only apply to connection made for 12 month contracts for the DTCS. The ACCC has set connection charges based on the charges observed in the benchmarking dataset.
  - Set the regulated charge for standalone tail-end services based on a notional 2km distance for both regional and metropolitan tail-end routes. The ACCC notes that tail-end services exhibit similar cost drivers to other transmission services and as such regulated prices for standalone tail-end services will be determined using the benchmarking pricing model, for regional and metropolitan routes. For tail-end services bundled with an inter-exchange route, either regulated or deregulated, the regulated price for the service is calculated as if the route is an inter-exchange route only. That is, the stand-alone tail-end price is not added on to the inter-exchange price.
- The ACCC considers that special linkage charges (SLCs) are not predictable for DTCS products and are unable to be priced for the purposes of the FAD.
- The ACCC has proposed an NPTC for SLCs to improve transparency of costs (outlined in Chapter 7).
- The ACCC does not propose to set price and non-price terms and conditions for ancillary facility access services in the draft DTCS FAD.
- The ACCC has retained its 2014 declaration decision that Telstra's Managed Leased Line product meets the requirements of the DTCS service description and is covered by the DTCS declaration.

This chapter sets out the ACCC draft decision on a number of other pricing considerations for the DTCS which were not considered in detail by ACCC's consultant during its development of the regression analysis as discussed in Chapter 4.

### 5.1 Bass Strait pricing

#### **2012 FAD**

The ACCC has determined that transmission services to Tasmania are regulated, regional services due to their location, traffic density, demand and the need for submarine cable connection. For the 2012 DTCS FAD model, services between the mainland and Tasmania are assumed to incorporate a submarine cable route of approximately 300km in length.

ACCC analysis as part of the 2012 FAD inquiry found that the average price of submarine routes was 40 per cent higher than deregulated mainland routes. The basic price comparison used in 2012 did not account for differences due to variables such as data rate or distance. In general, the undersea routes were shorter and had lower capacities than the mainland routes in the comparison.

The 2012 DTCS FAD provided an uplift factor of 40 per cent (on the undersea cable component only) for transmission services to Tasmania to account for the higher costs in provisioning and maintaining the undersea cable link.

## **Submissions**

The ACCC, as part of its July 2014 discussion paper, sought responses to the approach used to price the DTCS routes between Tasmania and the mainland in 2012. Telstra, Basslink and VHA each provided comments on the 2012 approach suggesting that the ACCC should re-examine the uplift applicable to Bass Strait services in 2015.

Telstra submitted that the level of 40 per cent uplift adopted in 2012 was lower than what is required to ensure continued investment in the route. Telstra submitted that the ACCC should re-examine the uplift based on an analysis of access providers' specific costs of supplying the submarine cable, and also take into account the geographically diverse path offered by Telstra. Telstra noted that a 40 per cent uplift adjustment is not high enough to provide incentive for continued investment in the route.<sup>82</sup>

Basslink submitted that it is appropriate that an adjustment be made for Bass Strait routes due to the higher costs associated with deploying and maintaining the submarine cable as well as the unique market characteristics of that route. Basslink submitted that the ACCC should re-examine the uplift and that an uplift of 40 per cent should be the minimum adjustment.<sup>83</sup>

VHA submitted that the ACCC should re-examine the uplift adjustment with current data however noted that Bass Strait route prices may not be reflective of competitive market outcomes. VHA noted that the uplift should not be higher than 40 per cent.<sup>84</sup>

## **ACCC draft decision**

The ACCC has considered the information provided by Telstra and Basslink regarding the need for an uplift to cover the extra costs of supplying the submarine cable between Tasmania and the mainland. The ACCC has also considered the submission of VHA regarding the price of transmission on this route.

The ACCC considers that retaining an uplift for the undersea component on Bass Strait transmission routes is appropriate. The ACCC recognises that the costs of the undersea component on these routes will be higher than routes of similar distance and capacity in regional areas, due to the specialised nature of submarine cables, the associated transmission equipment and higher maintenance costs.

However, the ACCC does not consider that there is sufficient evidence to change the size of the uplift from the current level of 40 per cent. The ACCC notes that although submissions suggested reconsidering the current approach, most did not provide a practical alternative. The exception was Telstra, which suggested that the uplift be based on the access providers' (that is, Telstra's and Basslink's) costs.

---

<sup>82</sup> Telstra, *Submission to the ACCC's DTCS FAD – Primary Prices: Response to ACCC Discussion paper* (public version), 26 September 2014, p.24.

<sup>83</sup> Basslink, *ACCC DTCS Final Access Determination (FAD) Inquiry 2014: Discussion Paper – Primary Prices*, 19 September 2014, p.4.

<sup>84</sup> VHA, *FAD: the primary prices: Response to ACCC* (public version), 26 September 2014, p.32.



On cost based approaches, the ACCC considers that using the costs of a benchmark efficient provider of undersea transmission services would provide the most robust approach to determining the size of the uplift. The ACCC sought information on costs and prices for undersea transmission links in other countries, but this information was not available or could not be accessed because of its commercially sensitive nature.

The ACCC considers that using Telstra's and Basslink's actual costs as a basis for determining the uplift would represent a less robust approach and would be an information intensive exercise. Further, the current approach is intended to capture the additional costs incurred by Telstra and Basslink for the undersea component by looking at differences in prices charged by Telstra and Basslink and prices for terrestrial routes with similar characteristics. Although a cost based approach would reflect these costs differences more directly, the ACCC is not yet convinced that it will result in a more accurate estimate of efficient costs nor a better outcome than achieved under the current approach, unless a significant cost study is undertaken.

The ACCC's draft decision is therefore to maintain the 40 per cent uplift on routes to Tasmania. The ACCC considers that the uplift factor of 40 per cent provides a reasonable estimate of the additional costs of the undersea transmission component based on available information. This will ensure that customers in Tasmania pay cost reflective prices for telecommunication services and ensure that the telecommunication providers are compensated for the extra cost of delivering services over the submarine link.

The uplift factor of 40 per cent will apply to the notional length of 300km for the subsea component for mainland-to-Tasmania services to account for the higher maintenance and repair costs of undersea cables.

The DTCS draft determines prices for routes between the mainland and Tasmania using the following calculation:

#### Equation 5.1

$$\text{total route price}_{A-B} = \text{regional price}_{A-B} + \text{uplift}$$

where

$$\text{regional price}_{A-B} = \text{price of a regional service of radial distance}(A,B)$$

$$\text{uplift} = \text{price}_{300} \times 40\%$$

## 5.2 Tail-end service pricing

Tail-end services were declared as part of the DTCS when it was first deemed a declared service in 1997. The ACCC defines a tail-end service as a transmission service where both the beginning and end of the route are within the same ESA. A tail-end is provided within an ESA either:

- between an exchange and an end customer location, or
- between an exchange and an access seeker's point of presence (POP) (a POP-to-end-user service).

An access seeker's POP can be located within a Telstra exchange or outside a Telstra exchange (but still within the ESA).

Tail-end services are typically sold as part of a bundle with either an inter-capital, metropolitan or regional transmission (the inter-exchange component) service. However, they can also be sold as a standalone product within an ESA. The tail-end service is not separately priced when sold as a bundle.



While the ACCC defines tail-end services as being provided within an ESA, the tail component of a transmission link can vary in terms of distance depending on the ESA and the customer location.

## **2012 FAD**

The ACCC, as part of the 2012 DTCS FAD, observed that most tail-end services were generally less than 2 km in length and not provided with geographic path protection (although this could be provided at additional cost to the access seeker).

The ACCC's final decision noted that while it was not possible to determine prices for tail-end services directly using a benchmarking approach (as all tail-end services were regulated and hence there was no benchmarking data for deregulated services) tail-end services did share some of the same price drivers as other DTCS services (particularly route category, distance, capacity, quality of service) and as such, it was appropriate to use the regression model to set regulated prices for services.

The 2012 FAD set prices for tail-end services in both metropolitan and regional areas using the 2012 regression model for unprotected services of 2 km in length.

In regards to an inter-capital, regional or metropolitan transmission service bundled with a tail-end component, the 2012 FAD did not set a separate charge for the tail component of these services. Rather, the FAD incorporated a tail-end component into the price of an inter-capital, regional or metropolitan service because:

- it was standard industry practice to bundle the tail-end component,
- the average length of the tail component was relatively short and
- for bundled services the distance of the route was calculated on an exchange-to-exchange basis.

Specifically, the 2012 DTCS FAD noted that the regulated price for a standalone tail-end service should not be added onto an inter-capital, metropolitan or regional route which includes a bundled tail-end service.

## **2014 Declaration Decision**

The ACCC, as part of its final declaration decision for the DTCS, maintained the declaration of tail-end services on the basis that these services continued to exhibit bottleneck characteristics.

The ACCC's final decision sought to clarify the service description to make it clear that all tail-end services, whether bundled or unbundled were subject to regulation. The ACCC did this by modifying the service description to confirm that where a bundled product consists of a deregulated inter-capital, regional or metropolitan route and a tail-end component, these services are considered regulated.<sup>85</sup>

Further the ACCC's final decision noted that the variations to the service description were intended to:

- recognise that the deregulation only apply to the inter-exchange component of a deregulated metropolitan, regional or inter-capital route (i.e. if the route includes a bundled tail-end component then the route is subject to regulation), and
- explicitly recognise stand-alone tails, should access seekers wish to purchase them independently of a metropolitan, regional or inter-capital route.

---

<sup>85</sup> ACCC, 2014 DTCS declaration, p.70.

The ACCC final decision in the declaration inquiry concluded that these variations to the service description may encourage DTCS suppliers to unbundle and price the tail-end component separately to the inter-exchange component.<sup>86</sup>

## **Submissions**

The 2014 DTCS primary prices discussion paper, sought submissions on whether the ACCC should revise the pricing of tail-end services as a stand-alone product to reflect the market practice of bundling.

Nextgen and Optus submitted that stand-alone tail-end services were priced too high in the 2012 FAD and that the ACCC should reconsider its approach to pricing these services in the 2015 FAD. In particular, Nextgen expressed concerns that the 2012 prices appeared to have little relation to the underlying costs, and on a per kilometre basis can be an order of magnitude above the prices observable in other parts of the market.<sup>87</sup>

Optus questioned the ACCC's approach to pricing tail-end services in the 2012 FAD, noting that there was (and still is) no competitive tail-end pricing which could form the basis of the regression analysis.<sup>88</sup>

Nextgen urged the ACCC to refocus its attention on tail-end services in the 2015 FAD. Nextgen argued that as tail-end services continue to be an enduring bottleneck, there was a need to unbundle these services and adopt a price structure which reflected the underlying costs incurred.<sup>89</sup>

Telstra was the only submitter to support the 2012 FAD pricing approach for stand-alone tail-end services. Telstra, in principle also agreed with the ACCC's approach and considered it to be reasonable and pragmatic.<sup>90</sup>

Stakeholders and their experts, during the development of Economic Insights' pricing model, echoed similar concerns to those noted above. Some experts engaged by stakeholders endorsed the previous pricing approach for tail-end services while others suggested that setting tail-end services to a 2 km distance was arbitrary and that an alternative approach was required. Concerns were also raised regarding the implication of changes to the DTCS service description arising from the 2014 declaration decision and the failure to remove bundled tail-end services from the underlying benchmarking data.

## **ACCC draft decision**

The ACCC acknowledges that there are key differences between tail-end services and other transmission services. Tail-end services are services typically offered over short (but variable) distances, for which there is limited competition. Further, tail-end services are typically sold as bundles with inter-exchange transmission services. The ACCC considers that these are key factors that must be considered in the regulation and pricing of tail end services.

However, the ACCC also notes the important similarities between tail-end services and other transmission services. Like other transmission services, tail-end services provide point-to-point connectivity on a symmetric basis. The ACCC has recognised this in its previously stated views that tail-end services are captured by the DTCS services description. Further, the ACCC has previously indicated its view that tail-end services are likely to exhibit similar cost drivers to other transmission services. This is a view the ACCC still holds.

---

<sup>86</sup> ACCC, 2014 DTCS declaration, pp.71-72.

<sup>87</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper—Primary Prices*, September 2014, p. 13.

<sup>88</sup> Optus, *Submission in response to DTCS FAD—Primary Prices* (public version), September 2014, p.27.

<sup>89</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper—Primary Prices*, September 2014, p. 3.

<sup>90</sup> Telstra, *DTCS FAD Inquiry—Primary Prices: Response to ACCC Discussion Paper* (public version), September 2014, p.24.

The ACCC draft decision is to maintain the current approach to setting prices for stand-alone tail-end services from the benchmarking model. Although, as Optus notes, there are no competitive tail-end services on which to benchmark prices. The ACCC considers that determining prices based on the benchmarking of other competitive transmission routes remains the most appropriate method for estimating the price of stand-alone tail-end routes, notwithstanding the key differences identified above. The ACCC also notes that although some submissions did not agree with the current approach to setting prices for stand-alone tail-end services (for the reasons discussed above), they did not propose any specific alternatives that could be adopted in place of the proposed approach.

The ACCC also proposes to set tail-end prices based on a notional 2 km distance for both regional and metropolitan tail-end routes in line with the 2012 FAD. Based on the available information, which indicates that a large majority of tail-end services are less than 2 km, the ACCC considers this to be a reasonable position to maintain for the 2015 FAD. This conclusion is also supported by Economic Insights, which found that 2 km was a reasonable assumption to make based on the 2014 dataset.

The current DTCS declaration makes a distinction between inter-exchange services and tail-end services. Inter-exchange services may be regulated or deregulated. All tail-end services are regulated. For services that have an inter-exchange component bundled with a tail-end component that service is considered regulated as the tail-end is unable to be acquired commercially without the corresponding inter-exchange component. The regulation of bundled transmission services consisting of these two components is intended to ensure that, if a service incorporates a deregulated inter-exchange route and a regulated tail-end component, the price for the service is calculated as if the route is a regulated inter-exchange route only (that is, the cost element of the tail-end is included in the inter-exchange component price).

The relevant charging point for determining the distance of the route is the exchange so the tail-end component is not considered separately in calculating the price of a bundled service. That is, the stand-alone tail-end price is not added on to the inter-exchange price. Similarly, the prices for regulated inter-exchange routes that are bundled with a regulated tail-end service are determined on the basis of the inter-exchange link alone and the stand-alone tail-end price is not added.

### *Encouraging unbundling*

While tail-end services are almost always acquired with an inter-exchange component the ACCC considers that unbundling the tail component would likely promote competition among inter-exchange services. This would be most beneficial where access seekers are able to acquire competitive inter-exchange transmission from one access provider and connect it with a (regulated) tail-end service from another access provider. This unbundling is likely to increase competition in the inter-exchange component.

The ACCC considers that setting prices for stand-alone tail-end services is likely to remain the most appropriate and practical method to encourage unbundling. However it notes concerns raised in this inquiry that limitations on commercial access to interconnection with alternative transmission providers within exchanges may limit the unbundling of tail-end services. The ACCC would welcome any comments on pricing of stand-alone tail-end services and the practical difficulties in acquiring and connecting stand-alone tails.

### *Including bundled services in the dataset*

The ACCC does not agree with concerns raised by stakeholders about the inclusion of bundled services within the dataset used in the regression modelling. This position is based on the fact that it is standard industry practice that tail-ends are bundled with inter-exchange services. These bundles are present in the dataset on which the regression is based. If all bundled services were to be removed from the dataset, this would mean that an important element (the otherwise competitive inter-exchange service) would be removed. Given the relatively short length of the tail component compared to the inter-exchange component we consider it

appropriate to include those services that comprise a deregulated inter-exchange component and a tail-end service in the dataset. This reflects and takes into account the competitive element of the link.

The ACCC considers that its proposed treatment and pricing of bundled tail-end services promotes the long-term interests of end-users by promoting the unbundling of the tail-end component largely through commercial agreement between an access seeker and an access provider.

## 5.3 Connection charges

Connection charges are non-recurring charges imposed by transmission providers to recover their up-front costs associated with the establishment of a service for a particular access seeker. The ACCC understands that these up front fixed costs relate to the provisioning of new ports, internal cabling and the back end services used to support these direct costs.

### 2012 FAD

As part of the 2012 FAD, the ACCC found that there was no significant relationship between one off connection charges and the recurring annual prices for transmission services. As such, the ACCC did not set connection charges using the 2012 regression model. Rather, connection charges were set separately and based on the connection charges observed in the benchmarking dataset.

The 2012 FAD regulated connection charges, as set out in table 5.1 below, only applied to connections made for a 12 month contract for the DTCS. Regulated prices also varied depending on the data rate and network interface of the service acquired. The ACCC's 2012 final decision noted that where connection charges apply to contracts in excess of 12 months or the 2012 FAD does not specify a charge for a particular data rate or interface, connection charges were to be determined via commercial negotiation.

**Table 5.1 2012 FAD prices for connection charges**

Data	SDH	Ethernet
2 Mbps	\$3 100	\$2 500
10 Mbps	\$6 500	\$2 500
34/45 Mbps	\$19 000	-
100 Mbps	-	\$5 000
155 Mbps	\$36 000	-
62 Mbps	\$40 000	-
1 Gbps	-	\$5 000

### Submissions

The ACCC's 2014 NPTC and supplementary prices position paper, sought submissions on whether the ACCC's approach to setting connection charges for the DTCS and other fixed line connection charges remained appropriate.

Nextgen and Telstra both supported the ACCC's approach to setting connection charges for the DTCS in the 2012 FAD.<sup>91</sup> Telstra noted that the 2012 approach was pragmatic and allowed parties to have flexibility to negotiate appropriate connection charges and discounts.<sup>92</sup>

Optus and Macquarie Telecom noted concerns with the ACCC's current approach. Optus stated that it was not clear how the ACCC's approach of averaging prices reflected efficient costs or promotes efficient investment decisions. Optus suggested that the use of average pricing is likely to favour access providers with market power as a result of its scale and cost advantages. Optus recommended that the ACCC analyse the costs incurred in providing a connection<sup>93</sup> whereas Macquarie Telecom suggested that Telstra should be required to demonstrate that its charges are cost-based and reasonable.<sup>94</sup>

NBN Co and VHA noted that while connection charges are specified, they are inextricably linked to the annual access charge for the DTCS.<sup>95</sup> VHA in its submission to the July discussion paper noted that in its 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 providers do not levy an explicit connection charge for the connection service. VHA suggested that this demonstrates that access providers do not make a clear distinction between connection costs and recurring costs in their pricing structures.<sup>96</sup> NBN Co [c-i-c starts] [c-i-c ends].<sup>97</sup>

VHA suggested that the ACCC should consider preventing transmission providers from imposing connection charges completely in the 2015 FAD.<sup>98</sup> In support of its recommendation VHA noted that connection charges have the capacity to operate as a barrier to entry for new market participants, who are unable to enter into long term contracts due to uncertainty around their revenue stream.<sup>99</sup>

Stakeholders and experts, during the development of Economic Insights' benchmarking model, questioned what costs connection charges were seeking to recover and whether these charges are better characterised as a fee for service which could be dealt with through principles or business rules.

### **ACCC draft decision**

Economic Insights, in its draft report tested the relationship between connection charges and the variables provided by the ACCC. It found that while the majority of variables had no significant relationship with the connection charge a few variables did have a low but statistically significant relationship with connection charge. However, given the large dataset and the relatively low statistical significance of this variable it was not given further consideration by Economic Insights.

---

<sup>91</sup> Nextgen, *Submission on the Telecommunications Final Access Determination (FAD) inquiries — non-price terms and conditions (NPTCs) and supplementary prices, Position Paper*, July 2014, p. 7.

<sup>92</sup> Telstra, *Final Access Determination (FAD) inquiries on supplementary pricing - Response to ACCC position paper* (public version), 15 July 2014, p.7.

<sup>93</sup> SingTel Optus Pty Ltd (Optus), *Submission in response to ACCC Position Paper, Non-price terms and conditions and supplementary prices (NPTCs) Final Access Determination* (public version), July 2014, pp 15 -16.

<sup>94</sup> Macquarie Telecom, *Submission to the Telecommunications Final Access Determination (FAD) inquiries — non-price terms and conditions (NPTCs) and supplementary prices*, 23 July 2014, p 6.

<sup>95</sup> NBN Co, *Telecommunication Final Access Determination (FAD) inquiries—Non-price terms and conditions (NPTCs) and supplementary prices*, 15 July 2014, p.3

<sup>96</sup> VHA, *FAD: the DTCS, Primary Prices: Response to ACCC* (public version), 26 September 2014, p. 22.

<sup>97</sup> NBN Co, *Submission to the ACCC's DTCS FAD Discussion Paper—Primary Prices* (confidential version), September 2014, p 6.

<sup>98</sup> VHA, *Final Access Determination (FAD): Non-price and supplementary Prices position paper, Response to the ACCC Position Paper*, 15 July 2015, p.16.

<sup>99</sup> VHA, *FAD: Non-price and supplementary Prices position paper, Response to the ACCC Position Paper*, 15 July 2015, p.16.

The ACCC notes that a number of submissions to the July 2014 discussion paper raised concerns with the approach adopted in 2012 (discussed below).

The ACCC draft decision is to set connection charges separately to the price model derived from the regression analysis. The ACCC draft decision is to retain the approach used in the 2012 FAD, of setting the regulated charge based on the connection charges observed in the benchmarking dataset. The ACCC has set a number of different prices which depend on the data rate of a service acquired and the technology interface used.

The ACCC draft decision is to only set a regulated connection charge imposed on DTCS contracts of 12 months—connection made in relation to contracts in excess of 12 months will continue to be determined by commercial negotiation. The ACCC understands that it is common practice for providers to offer discounts on connection charges for contracts in excess of 12 months. For example **[c-i-c starts] [c-i-c ends]**.<sup>100</sup> Additionally, setting connection charges for a 12 month contract aligns with the approach discussed in section 4.4 of setting the price for the DTCS for a 12 month period.

The ACCC notes that the approach of setting regulated prices based on the connection charges observed in the benchmarking dataset provides the opportunity to recover the efficient costs for connecting a customer, while giving certainty to access seekers wanting to acquire the DTCS on a 12 month contract. The ACCC's draft connection charges are set out in table 5.2 below. Unlike the 2012 FAD, the ACCC draft decision is to group connection charges into data rate bands to give access seekers greater clarity over the regulated connection charges for a particular service. The ACCC has created these bands based on the most commonly acquired data rates observed in the 2015 benchmarking data.

The ACCC notes that while some stakeholders suggested that the ACCC should adopt an alternative approach to setting the regulated price for connection charges, submissions stopped short of making specific recommendations as to the approach the ACCC should adopt. The ACCC invites comments on what alternative approach the ACCC should consider adopting in pricing connection charges. The ACCC also invites comments on whether there are any other factors the ACCC should consider in setting the regulated charge for connections. For example, the ACCC understands that connections made on an optical fibre service can vary significantly and are influenced by the distance between the POI and the access seeker's POP. While the infrastructure and process making these connections can look identical, the costs of the laser used in the line card can vary significantly; the greater the distance between the POI and the access seeker's POP, the more precise and costly the laser needs to be.

---

<sup>100</sup> NBN Co, *Submission to the ACCC's DTCS FAD Discussion Paper—Primary Prices* (confidential version), September 2014, p 6.

**Table 5.2 Draft 2015 FAD prices for connection charges using SDH**

<b>Data</b>	<b>SDH</b>
2 Mbps*	\$1 500
3-8 Mbps	\$2 000
9-34 Mbps	\$5 000
35-45 Mbps	\$5 000
46-155 Mbps	\$10 000
156-622 Mbps	\$21 500
623-2 500 Mbps	\$25 000
2 501-10 000 Mbps	\$25 000

\*The 2Mbps band includes services provided at speeds of 2.048Mbps

**Table 5.3 Draft 2015 FAD prices for connection charges using Ethernet**

<b>Data</b>	<b>Ethernet</b>
2-10 Mbps	\$1,000
11-100 Mbps	\$1 500
101-1 000 Mbps	\$5 000
1 001-10 000 Mbps	\$13 500

## 5.4 Special linkage charges

### *NPTC and supplementary pricing position paper*

In the 2012 DTCS FAD the ACCC noted that special linkage charges (SLCs) were not predictable for DTCS products and that their nature and quantum varied considerably depending on each individual connection and could not be predicted in advance.<sup>101</sup> Therefore, the ACCC decided not to address the non-recurring SLCs in the 2012 DTCS FAD. In the ACCC's DTCS declaration decision in 2014, the ACCC reiterated the point that an SLC is not readily quantifiable at the time of purchasing a DTCS service.<sup>102</sup>

The NPTC and supplementary pricing position paper sought comments on whether the DTCS FAD should address the issue of SLCs in relation to non-price terms and conditions.

<sup>101</sup> ACCC, 2012 FAD, p.40, 46.

<sup>102</sup> ACCC, 2014 DTCS declaration, p.54.



## **Submissions**

Several submitters to the NPTC and supplementary pricing position paper noted the ACCC's previous view that SLCs are not able to be priced in the FAD due to their unpredictable nature.<sup>103</sup>

Access seekers set out a clear preference for SLCs to be addressed with non-price terms and conditions in the DTCS FAD to provide more transparency regarding the nature of the charges.<sup>104</sup>

## **ACCC draft decision**

The ACCC's draft decision maintains the view that special linkage charges are not predictable for DTCS products and are unable to be priced for the purposes of the FAD.

The ACCC has decided to address issues relating to special linkage charges dealing with non-price terms and conditions as outlined in chapter 7.

## **5.5 Facilities access**

Under the CCA the ACCC may set terms and conditions, including price terms for access to facilities, via an access determination for a currently declared service where the service facilitates the supply of a listed carriage service, or an access determination for a new declared service.

Section 152AR(5) provides that access providers of the declared service, that also own or control one or more facilities, must permit interconnection of those facilities for the purpose of enabling the supply of active declared services. That is, there is an obligation to supply ancillary facilities access services. As such, the ACCC can make terms and conditions in a FAD that relate to facilities access services that are ancillary to obtaining access to a declared service.

The ACCC may also declare facilities access services under Part XIC if the service facilitates the supply of a listed carriage service (within the meaning of the Telco Act<sup>105</sup>). Once a service is declared, a carrier or CSP that provides the service must meet the standard access obligations (SAOs) set out in section 152AR of the CCA. Declaring such services would allow the ACCC to set prices and NPTCs relating to the declared facilities access service through a FAD.

## **NPTC and supplementary pricing position paper**

In the [NPTC and supplementary pricing position paper](#)<sup>106</sup>, the ACCC sought submissions on the facilities access services which are ancillary to current declared services and which submitters consider should be regulated through the FADs for those services. The ACCC also sought submissions as to whether other facilities access services (that are not ancillary to a declared service) should be the subject of a declaration inquiry into facilities access services.

---

<sup>103</sup> Optus, *Non-price terms and conditions (NPTCs) and supplementary prices, Final Access Determination (FAD)* (public version), July 2014, pp. 17-18; Telstra, *FAD inquiry on supplementary pricing – response to ACCC position paper*, 15 July 2014, p. 8.

<sup>104</sup> Optus, *NPTCs and supplementary prices, FAD* (public version), 15 July 2014, pp. 17-18. TPG, *Submission by TPG (July 2014) to ACCC final access determinations (FAD) Non-price terms and conditions (NPTCs) and Supplementary Prices: Position Paper (May 2014)*, July 2014, p. 6. VHA, *FAD NPTCs and Supplementary Prices, Response to ACCC's Position Paper*, 15 July 2014, pp. 17-18. Nextgen, *Submission on the Telecommunications FAD inquiries – NPTCs and supplementary prices, Position Paper*, July 2014, p.7.

<sup>105</sup> Sections 7 and 16(1) of the Telco Act.

<sup>106</sup> ACCC, 2014 NPTC and supplementary prices position paper.



## Submissions

Submitters identify three facilities access services which relate to the provision of the DTCS (and other transmission services) by transmission and DTCS providers. These include Telstra Equipment Building Access (TEBA) services, external interconnect cables (EIC) and duct access services. Submitters did not identify any facilities for which access is required by access seekers for the purpose of accessing the DTCS.

### *TEBA and EIC services*

The ACCC received one submission in relation to TEBA and EIC services. In its submission, Nextgen noted that TEBA facilities encompass floor space, equipment racks and/or rack space via which interconnection could occur and that by extension, could be relevant to the provision of transmission services, including the DTCS. Nextgen also considered that by virtue of connecting ducts and exchange buildings, EIC's support interconnection, and are also relevant.<sup>107</sup>

### *Access to duct services*

Nextgen and Macquarie identified the duct access service as important for access seekers wishing to install their own fibre optic cables for the supply of transmission services.<sup>108</sup> Vocus submitted that duct access is not usually ancillary to current declared services. Vocus noted that, as a base component of all fixed line services and to a lesser degree mobile services, duct access is vital to wholesale and retail telecommunications markets.<sup>109</sup>

Most submitters supported regulation of access to ducts via declaration (and related FAD) rather than through the FADs of current declared services (such as the DTCS).<sup>110</sup> It was submitted that regulation is necessary to address:

- high access to duct prices. iiNet submitted that, compared with international prices, Telstra's prices are high and higher than they would be if they were cost based<sup>111</sup>
- a lack of substitutes to Telstra's duct access network. Vocus submitted that other alternatives, such as using a third party duct network or installing the cabling aerially, were not feasible alternatives to Telstra's duct network,<sup>112</sup> and
- the inadequacy of the negotiate/arbitrate regime under Schedule 1 of the Telco Act, highlighted by the *Telstra Corporation Limited v Vocus Fibre Pty Ltd*<sup>113</sup> Full Federal Court decision.<sup>114</sup>

---

<sup>107</sup> Nextgen, *Nextgen submission on the Telecommunication FAD inquiries - NPTC and supplementary prices position paper*, July 2014, p.8.

<sup>108</sup> Nextgen, *Nextgen submission on the Telecommunication FAD inquiries - NPTC and supplementary prices position paper*, July 2014, p.8. Macquarie Telecom (Macquarie), *Telecommunication FAD inquiries - NPTC and supplementary prices*, 23 July 2014 p.10.

<sup>109</sup> Vocus, *Submission to the ACCC in reply to the May 2014 position paper on the Telecommunications Final Access Determination (FAD) inquiries into non-price terms and conditions (NPTCs) and supplementary prices*, p.2.

<sup>110</sup> iiNet, *Telecommunication FAD inquiries - NPTC and supplementary prices position paper*, 15 July 2014, p.18. TPG, *Submission by TPG Telecom Limited (July 2014) to ACCC Telecommunications FAD inquiries – NPTC and supplementary prices: position paper* (May 2014), July 2014, p.7. Vocus, *Submission to the ACCC in reply to the May 2014 position paper on the Telecommunications FAD inquiries into NPTCs and supplementary prices*, p.2. Macquarie, *Telecommunication FAD inquiries - NPTC and supplementary prices*, 23 July 2014, p.10.

<sup>111</sup> iiNet, *Telecommunication FAD inquiries - NPTC and supplementary prices position paper*, 15 July 2014, p.18.

<sup>112</sup> Vocus, *Submission to the ACCC in reply to the May 2014 position paper on the Telecommunications FAD inquiries into NPTCs and supplementary prices*, pp. 5-6.  
[2014] FCAFC 77.

<sup>114</sup> Vocus, *Submission to the ACCC in reply to the May 2014 position paper on the Telecommunications FAD inquiries into NPTCs and supplementary prices*, p.2.

Telstra argued that duct access should not be regulated via the FADs of current declared services because the duct access service is acquired by access seekers for the supply of a range of non-declared services to retail or wholesale customers. Telstra submitted that if the ACCC were to regulate the duct access service, it should do so via declaration of a duct access service.<sup>115</sup>

### **ACCC draft decision**

The ACCC notes that it has not received any submissions on facilities access services that are required for accessing the DTCS (that is, ancillary to the DTCS), and which should be regulated through the DTCS FAD. As such, the ACCC does not propose to set price terms and conditions and NPTCs for ancillary facility access services in the draft DTCS FAD.

However, in considering the submissions made in relation to facilities access services and the DTCS, the ACCC notes that:

- the EIC is used for interconnection with access seeker fixed line equipment (located outside the exchange building) and as such, is only relevant for accessing fixed line services
- while TEBA services (in particular TEBA rack and floor space) are relevant for the supply of the DTCS<sup>116</sup> submissions have not requested regulation of TEBA facilities access services in relation to the DTCS
- as suggested by submitters, the nexus between the DTCS and duct facilities is unlikely to be sufficient to support the ACCC pricing a duct access service in the DTCS FAD, and
- the ACCC would need to undertake a declaration inquiry under Part XIC of the CCA if it were to consider regulating access to TEBA rack and floor space and/or ducts services for the purpose of supplying the DTCS.

In relation to access to ducts services, the ACCC is cognisant of the ongoing level of support, particularly amongst access seekers, for a declaration inquiry. The ACCC will give further consideration to whether conducting a declaration inquiry to determine whether declaration would be in the LTIE is appropriate and expects to make a decision by the first quarter of 2016.

## **5.6 Telstra Managed Leased Line services**

Since the 2012 FAD took effect, Telstra introduced simplified range of transmission products including the Managed Leased Line (MLL) service and the Data Carriage Service (DCS). Both services replace the numerous legacy wholesale transmission and carrier grade services with a simplified product range. The MLL service and DCS are almost identical services and both meet the DTCS service description. The MLL service has an additional service feature which provides proactive monitoring of the data link at the individual service level.

The DCS is priced according to the regulated prices determined by the 2012 DTCS FAD and are set out in the Telstra Rate Card for reference prices (along with other declared services as required under Telstra's SSU ).

The MLL service is priced on a commercial basis by Telstra using a zone and route type structure. Prices for the MLL service are negotiated between Telstra and the access seeker

---

<sup>115</sup> Telstra, *FAD on supplementary pricing, Response to ACCC position paper* (public version), 15 July 2014, p.9.

<sup>116</sup> TEBA rack and floor space is used by transmission and DTCS providers (other than Telstra) for their transmission equipment so that they are able to supply the DTCS and deregulated transmission services in competition with other service providers (including Telstra).

who then enter into an access agreement (Telstra Wholesale Agreement) which sets out the terms and conditions of access including the negotiated price for the service

While the MLL service pricing has some similar characteristics to the 2012 FAD prices it is a commercial pricing construct where access seekers may agree to terms different to those set out in the FAD. Telstra MLL services are priced on a zone and route type matrix, based on the A-end and B-end locations of the service. The ACCC understands that the MLL service pricing is based on key cost drivers such as distance and capacity and also reflect Telstra's customers pricing preferences.

As set out in Chapter 4, the ACCC's draft decision is to retain the route category used in the 2012 FAD and as specified in the service description following the ACCC's 2014 DTCS declaration decision. This section of the draft decision discusses the route type matrix used by Telstra in the supply of its MLL products and suggestions by stakeholders that the ACCC use this construct to set the regulated prices for the DTCS.

## Submissions

Due to issues raised by access seekers over Telstra's use of its MLL services the ACCC's July discussion paper sought comments on whether the ACCC should consider adopting a route type matrix, similar to that used by Telstra for its MLL service.

In response to the ACCC's July 2014 discussion paper, most submitters who provided comments on the use of route type in the 2015 FAD expressed concerns over Telstra's use of its zone matrix in pricing its MLL services. For example, VHA noted that while the ACCC has made it clear that Telstra's MLL services fall within the 2012 DTCS FAD, [c-i-c starts] [c-i-c ends].<sup>117</sup>

VHA goes on to note that [c-i-c starts] [c-i-c ends].<sup>118</sup> Optus also submitted that the route type matrix is currently used as the default pricing construct in commercial negotiations and that the 2012 FAD is of little help in these commercial negotiations.<sup>119</sup>

In light of these concerns, Nextgen and VHA both expressed a preference for the ACCC to adopt or consider adopting an alternative approach to the current geographical classification. Nextgen suggested that a route type matrix would offer benefits in terms of greater granularity in regards to the interplay between competitive dynamics in a given area and pricing outcomes.<sup>120</sup>

Optus did not express a view about which classification the ACCC should apply, but rather noted that the ACCC should focus on pricing the DTCS closer to the actual cost of supply. Optus suggested that the regulated price should be set in a manner which enables it to be applied to all price structures and services purchased.<sup>121</sup>

Telstra was the only submitter to support, in principle, the retention of the current route categories. Telstra noted that differences in route type matrices (radial distance or zone based approaches) as used by access providers for the variety of DTCS pricing will be accounted for through the regression model.<sup>122</sup>

---

<sup>117</sup> VHA, *FAD: the DTCS, Primary Prices: Response to ACCC* (confidential version), 26 September 2014, p. 22.

<sup>118</sup> VHA, *FAD: the DTCS, Primary Prices: Response to ACCC* (confidential version), 26 September 2014, p. 23.

<sup>119</sup> Optus, *Submission in response to DTCS FAD—Primary Prices* (public version), September 2014, p.25.

<sup>120</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper—Primary Prices*, September 2014, p. 6.

<sup>121</sup> Optus, *Submission in response to DTCS FAD—Primary Prices* (public version), September 2014, pp.24-25.

<sup>122</sup> Telstra, *DTCS FAD Inquiry—Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.21.

## **ACCC draft decision**

As noted above the ACCC's draft decision is to use the geographic route categories set out in the DTCS service description following the 2014 declaration decision. The ACCC considers that the broad DTCS geographic route categories provide for regulated prices upon which stakeholders can rely on when in commercial negotiations and that it is open to access seekers to have the regulated price enforced.

The ACCC notes that the broad DTCS geographic route categories developed by the ACCC are well understood by industry and are easy to apply. Whereas, Telstra's MLL route matrix is a Telstra pricing construct which the ACCC understands can be applied arbitrarily and modified by Telstra at any time. The ACCC obtained MLL data as part of the data set provided by access providers to set regulated prices. The route matrix approach to pricing was examined as an alternative to geographic routes. However, given the lack of clarity around the matrix pricing and the need for a simplified pricing model, it was considered that a change to the pricing model to incorporate a route matrix approach would not be suitable.

As previously stated in the ACCC's final declaration decision, the ACCC is of the view that the service features of the MLL product meet the requirements of the DTCS service description and is covered by the DTCS declaration.<sup>123</sup> However, Telstra provides the DCS at the regulated FAD prices. Furthermore, the ACCC notes that even if it were to adopt the MLL pricing construct (as suggested), this may be a short term solution which would have little practical effect as Telstra could subsequently vary the MLL service pricing construct or, offer a slightly different transmission service.

The ACCC understands that it is common practice for access seekers to acquire both regulated and deregulated transmission services under a single commercial agreement and that such an agreement may depart from the FAD prices. However, the ACCC notes that such a decision is made by an access seeker on a commercial basis. For instance, the access seeker may receive more favourable terms on competitive routes. The ACCC does not seek to regulate these arrangements and notes that they align with the access hierarchy set out in Part XIC of the CCA. The access hierarchy reflects that an access provider and access seeker are always free to negotiate terms and conditions of access that differ to those contained in a regulatory instrument and, where these negotiations are successful, those terms and conditions should be given precedence.

The regulated pricing in this draft decision, particularly the significant reductions in regulated prices for higher capacity regional services, should limit the ability of access providers to trade-off lower prices in deregulated areas for higher prices in regulated areas. Where access seekers require services across both regulated and deregulated areas they will continue to have access to FAD pricing in regulated areas and an access provider is obliged to offer those prices as required under Part XIC.

---

<sup>123</sup> ACCC, 2014 DTCS declaration, p.65.

## 6 Other information on transmission prices

### **Key Points**

- The ACCC has considered various sources of alternative pricing data and alternative pricing constructs in order to assess the outcome of the domestic benchmarking approach.
- The ACCC considers that the international data sources are not sufficiently comparable to the Australian data and as such, cannot provide a useful input into the ACCC's pricing decision. At a broad level however, data from international studies indicate that the 2015 DTCS FAD prices are within the lower range of international prices.
- The ACCC considers that the alternative pricing models which have been examined have limited applicability and are unlikely to be suitable for providing a useful input into the ACCC's pricing decision.

### 6.1 International benchmarking

In response to the July 2014 primary prices discussion paper Optus and the CCC's submissions suggested that reviewing international benchmarks could provide useful supplementary information to determine a standard range in which regulated prices may fall.<sup>124</sup> It was suggested that international benchmarks could be used as a cross check against regulated DTCS prices.

As noted in the ACCC's 2014 position paper on DTCS pricing methodology there are significant difficulties in applying an international benchmarking approach to the DTCS.<sup>125</sup> Such difficulties include the differing approaches to pricing in different countries<sup>126</sup>, identification of comparable services, rates for currency conversions, differing geographies and input price differences across countries.<sup>127</sup>

Despite these limitations, the ACCC has reviewed a range of international benchmark reports for pricing information that might be relevant as a high level cross check on the outputs of the domestic regression modelling results.

*OECD Digital Economy Outlook 2015*<sup>128</sup>

The OECD Digital Economy Outlook 2015 replaces the OECD Communications Outlook series and examines the various trends and policy developments in communications infrastructure and services. The 2015 report compared published monthly 2Mbps and 34Mbps leased line prices across 25 OECD economies as at August 2014. While these prices represent standard rates, a broad comparison of these prices to purchasing power parity (PPP)/USD adjusted 2012 DTCS FAD prices and draft 2015 DTCS FAD prices shows that both FAD prices are at the lower end of the OECD price range.

<sup>124</sup> CCC, *Response to DTCS FAD Primary Prices*, October 2014, p.1. Optus, *Submission to ACCC Discussion Paper on Primary Price terms* (public version), September 2014, p.19.

<sup>125</sup> ACCC, Position Paper, p.22.

<sup>126</sup> Wik-Consult GmbH, Commissioned by BT, *Ethernet leased lines: A European benchmark*, November 2014.

<sup>127</sup> T. Jamsb and M. Pollitt, 'Benchmarking and regulation: international electricity experience' in *Utilities Policy*, Volume 9, Issue 3, 2001, pp. 110.

<sup>128</sup> OECD, [OECD Digital Economy Outlook 2015](#), July 2015.

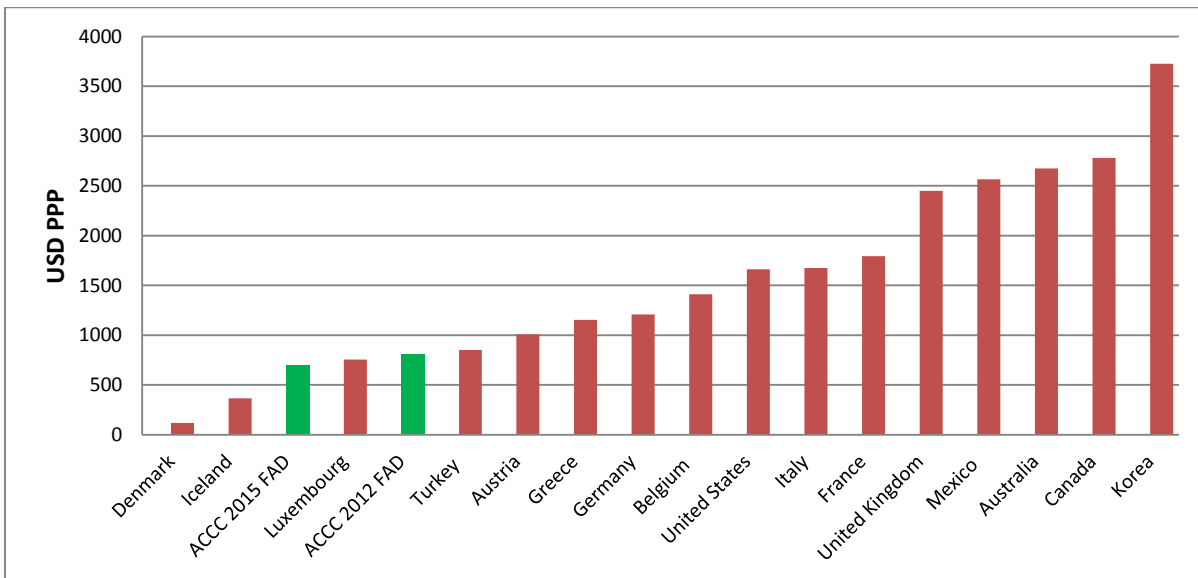
*WIK-Consult Ethernet leased lines benchmarking*<sup>129</sup>

WIK-Consult was engaged by British Telecom to undertake a benchmark study on European Ethernet leased lines. The WIK European benchmarking study looked at business-grade<sup>130</sup> symmetric, uncontended 100Mbps leased lines in 10 countries in 2014 and found that for 5km services, the average monthly advertised price (including installation) for a 24 month contract ranged from €271 in the United Kingdom to €3 115 in Italy per month. While the inclusion of installation charges and different service characteristics makes direct comparison difficult, the AUD converted prices<sup>131</sup> range from \$397 to \$4 561. This shows that the range of prices in the benchmarked countries is wide but the average is similar to the draft 2015 DTCS FAD price.

*OECD pricing comparison*

As noted above, a direct comparison of the OECD leased line prices to Australian regulated DTCS prices is difficult. However, the ACCC has used the 2012 DTCS FAD calculator and the draft 2015 DTCS FAD calculator to form the basis of a weighted average USD/PPP price for Australian 2Mbps and 34 Mbps DTCS services against the pricing of a 2Mbps and 34 Mbps services in OECD countries. The comparison is illustrated in the charts below, with the calculated FAD prices highlighted. These prices are shown in Chart 5 for 2Mbps services and Chart 6 for 34Mbps services below:

**Chart 5 - Monthly tariff comparison of OECD 2014 leased lines and DTCS FAD prices - 2Mbps**<sup>132</sup>



<sup>129</sup> Wik- Consult GmbH, Commissioned by BT, *Ethernet leased lines: A European benchmark*, November 2014.

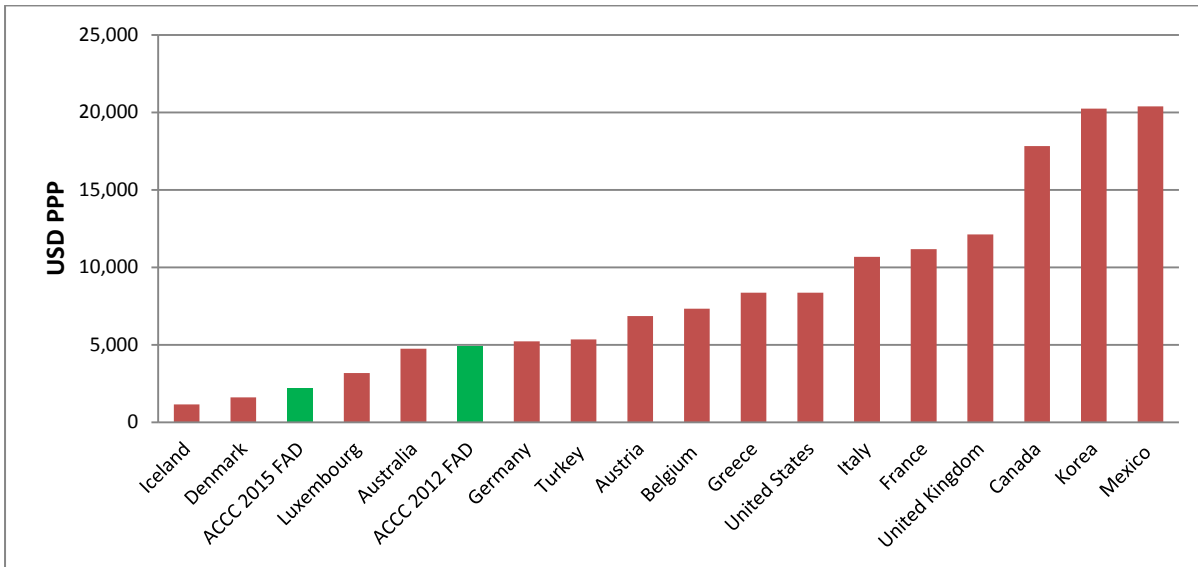
<sup>130</sup> Business-grade services are likely to have lower levels of service guarantees and availability characteristics when compared to the services benchmarked for the DTCS FAD.

<sup>131</sup> RBA, [Exchange Rates - Monthly - January 2010 to latest complete month of current year](#), October 2014 rate used, accessed August 2015.

<sup>132</sup> OECD, *OECD Digital Economy Outlook 2015*, [Table 2.70. OECD basket of national leased line charges, monthly price, VAT excluded, Aug. 2014](#) July 2015.



**Chart 6 - Monthly tariff comparison of OECD 2014 leased lines and DTCS FAD prices - 34Mbps<sup>133</sup>**



While these charts suggest that Australian regulated DTCS prices are at the lower end of international pricing data, the ACCC acknowledges that the available international data is not easily comparable and a number of complex assumptions would have to be made to further interpret the information for the Australian context. The data does however, provide an indicative assessment of how pricing compares between the ACCC’s DTCS FAD models. As illustrated in both charts, the proposed pricing of DTCS in the 2015 model is at the lower end of the benchmarked countries. However, the ACCC notes that the comparison does not take account of geographical differences (such as area and population density) that are likely to be more relevant to the Australian transmission market.

## 6.2 Consideration of other available costs models

Optus, VHA, and the CCC<sup>134</sup> in their submissions to the July 2014 discussion paper suggested that the ACCC should use a range of other pricing approaches in addition to the domestic benchmarking approach to inform the setting of regulated DTCS prices. Optus noted that the ACCC could develop a cost model based on the ACCC’s Fixed Line Service Model (FLSM) that has been used to develop pricing for the regulated fixed line services. The ACCC accepted that there would be merit in considering other relevant sources of information as a cross-check on the outputs of the benchmarking analysis.

The ACCC sought additional information from Telstra as to the suitability of the FLSM as a check on DTCS pricing. Telstra submitted that the FLSM would not be an appropriate cross-check because:

- using depreciated historic asset values would be inappropriate for application in the DTCS market where participants clearly face a build/buy choice and there is ongoing investment in, and competitive bypass of, existing infrastructure
- the FLSM is insufficiently dis-aggregated to provide meaningful estimates of DTCS costs for individual routes and cannot therefore be used as a cross check of estimated DTCS prices, and

<sup>133</sup> OECD, *OECD Digital Economy Outlook 2015*, [Table 2.70. OECD basket of national leased line charges, monthly price, VAT excluded, Aug. 2014](#) July 2015.

<sup>134</sup> CCC, *Response to DTCS FAD Primary Price terms*, p.1. Optus, *Submission in response to DTCS FAD - Primary Prices* (public version), September 2014, p.5. VHA, *FAD: DTCS, Primary Prices: Response to ACCC* (public version), 26 September 2014, p.25.

- the FLSM does not reflect the range of factors that influence prices in competitive markets. The wholesale fixed line services market is not a highly competitive market like the DTCS market.

The ACCC has considered the points raised by Telstra. For the reasons outlined by Telstra, the ACCC accepts that the FLSM is unlikely to provide a useful cross-check on the domestic benchmarking outputs.

The ACCC has also consulted with Telstra as to the merits of using the Telstra Economic Model (TEM) as a cross-check on DTCS revenue outcomes. The TEM is a fully allocated cost model used internally by Telstra to assess profitability of services within Telstra's domestic core business. Telstra also provides TEM reports to the ACCC for reportable services under Telstra's SSU obligations.

Telstra notes that the wholesale transmission products line item in the TEM includes DTCS services as well as other transmission products not captured within the scope of DTCS (that is, they do not meet the technical requirements of the DTCS). The revenue for wholesale transmission products reported by Telstra in the TEM aggregates DTCS revenue as well as revenue from the sale of other wholesale transmission products. The ACCC analysed the TEM data provided by Telstra and found direct comparison with the DTCS dataset difficult for the reasons stated above. The ACCC was unable to isolate the DTCS revenue from the other wholesale transmission products within the TEM. On this basis, the ACCC considers that the TEM is not a useful cross-check on the domestic benchmarking outputs.

### ***ACCC draft conclusion***

The ACCC accepts the submissions of the CCC and Optus that a cross check on the DTCS pricing model would be useful. However, the data that is available publicly from other jurisdictions is not presented in a way that would allow a direct comparison to Australian benchmarking results. While at a high level, the data available suggests that the outputs of the 2015 domestic benchmarking models are at the lower end of international prices, the ACCC accepts that the comparison is not sufficiently detailed to be a useful cross check. However, at a high level, the comparison against international benchmarking studies (particularly the OECD Digital Economy Outlook 2015) shows that DTCS benchmark prices are within the lower range for a number of key service types.

Due to the limitations in existing Telstra related cost models, as discussed above, the ACCC does not propose to use them as a cross check for regulated DTCS prices.



## 7 Non-price terms and conditions

### ***Key Points***

- The common NPTCs for the DTCS in this draft decision reflect the views set out in the separate NPTCs consultation which concluded on 24 August 2015.
- In relation to NPTCs specific to the DTCS, the ACCC's draft decision is to include a NPTC for SLCs which set out an access provider's responsibility to provide cost itemisation for SLC quotes. The ACCC considers that it is important for access seekers to have this level of transparency to understand how costs are calculated by an access provider.
- The ACCC seeks views from stakeholders on whether the level of specificity proposed by the draft NPTC term on cost itemisation is sufficient for an access seeker to be able to assess an SLC quote.
- The ACCC's draft decision is not to include NPTCs for apportioning SLC costs, equivalence measures and cost orientation for SLCs.

The ACCC has consulted separately on the common non-price terms and conditions for the FADs for the DTCS and other declared services, via a joint consultation process. The ACCC considered there to be benefits in conducting a combined consultation process for NPTCs given that a number of these terms are similar (or the same) across the declared services and there may be benefits in maintaining consistency in certain terms across the FADs.

On 24 August 2015, the ACCC released a report setting out its final decision on NPTCs for the MTAS and views on the NPTC for fixed line services and the DTCS (the NPTC report). In respect of the DTCS, the ACCC has not finalised its decision on NPTCs. Rather the NPTC report sets out its views on the common NPTCs that should be included in the DTCS FAD.

For the purpose of this draft decision for primary price terms, the ACCC provides a draft FAD instrument on the [ACCC website](#). This draft instrument contains the common NPTCs for the DTCS based on the reasoning in the NPTC report released in August 2015. NPTCs specific to the DTCS are considered further below.

For the assessment of the legislative criteria for the common NPTCs which apply to the DTCS, the ACCC refers to its views in the NPTC report. The ACCC's final decision and assessment against section 152BCA criteria can be found on the [ACCC website](#).

### ***NPTC and Supplementary Pricing discussion paper***

Following submissions to the 2014 NPTCs Discussion Paper the ACCC decided it would consider DTCS specific price and NPTCs alongside the primary prices in this DTCS FAD inquiry. As discussed at section 5.4, the ACCC will not be pricing SLCs but rather proposes to make NPTCs for the SLCs. This chapter provides the ACCC's draft decision on specific DTCS NPTCs for the SLCs.

## 7.1 Special linkage charges

A SLC is a non-recurring charge levied by an access provider where it is requested by an access seeker to extend its transmission infrastructure beyond its existing network boundary point (NPB) to a particular site such as a customer building, mobile tower or datacentre.

The work required for a special linkage may include trenching, ducting or cabling work not normally required for ordinary transmission provisioning for the DTCS. The charge is determined on a case-by-case basis and is based on the actual work undertaken by an access

provider which will vary depending on the location, length and other access seeker requirements.

Issues surrounding the approach to pricing of SLCs were raised in the 2012 DTCS FAD inquiry and again in the 2014 DTCS declaration inquiry. Stakeholders expressed concern about the process for determining the charge such as lack of transparency as to how the charge is calculated and wait times for quotes. Issues also related to the level of the charges imposed such as whether charges were cost-based.

The ACCC did not consider it practical to set SLCs in the 2012 DTCS FAD noting that these types of charges varied considerably and are difficult to predict in advance.<sup>135</sup> Similar issues were again raised by stakeholders in the 2014 DTCS declaration inquiry. Telstra indicated during the declaration inquiry that it was simplifying its pricing of SLCs by introducing better quote tools that was intended to also improve price certainty.<sup>136</sup> The ACCC considered that the issue of SLCs warranted further consideration in the context of the current DTCS FAD inquiry.

## Submissions

In the 2014 NPTC and supplementary prices position paper the ACCC sought stakeholder views on SLCs.<sup>137</sup> The ACCC received submissions from Telstra, Optus, Nextgen, Macquarie, TPG and iiNet on SLCs. Stakeholders again raised concerns around the transparency of the quoting process, when it should apply and the basis of the charges.<sup>138</sup> VHA noted that the lack of transparency meant that access seekers could not meaningfully estimate the likely charge, which created difficulties in terms of network investment planning and increases the risk of inefficient investments.<sup>139</sup> TPG considered that transparency around the basis of charges is required to ensure the charges are linked to underlying costs and are not arbitrarily imposed.<sup>140</sup>

Most stakeholders submitted that the DTCS FAD should address SLCs in relation to NPTCs<sup>141</sup> and proposed that consideration be given to:

- introducing better quote tools to provide greater price certainty. Submissions suggested for upfront cost quotes without cancellation penalties being imposed if the final cost is higher than the quoted cost,<sup>142</sup> an access provider be required to obtain three quotes<sup>143</sup> or an access provider be required to provide itemised breakdown of costs<sup>144</sup>

---

<sup>135</sup> ACCC, 2012 DTCS FAD, p 40.

<sup>136</sup> Telstra, *Submission to the Commission's Draft Report on the review of the declaration for the DTCS*, 14 February 2014, (public Version), p. 6.

<sup>137</sup> ACCC, 2014 NPTC and supplementary prices position paper, p. 17.

<sup>138</sup> Optus, *Submission in response to ACCC Position Paper, NPTC and supplementary prices, FAD* (public version), July 2014, p.18. VHA, *FAD: Non-Price Terms and Supplementary Prices, Response to the ACCC's Position Paper*, 15 July 2014, p. 17.

<sup>139</sup> VHA, *FAD: Non-Price Terms and Supplementary Prices: Response to ACCC's Position Paper*, 15 July 2014, p.17.

<sup>140</sup> TPG, *Submission by TPG (July 2014) to ACCC Telecommunications FAD inquiries – NPTCs and supplementary prices: Position paper (May 2014)*, July 2014, p.6.

<sup>141</sup> Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8. TPG, *Submission by TPG (July 2014) to ACCC Telecommunications FAD inquiries - NPTCs and supplementary prices: Position Paper (May 2014)*, July 2014, p.6. Nextgen Group (Nextgen), *Nextgen submission on the Telecommunications FAD inquiries – non-price terms and conditions (NPTCs) and supplementary prices Position Paper*, July 2014, p.7. VHA, *FAD: Non-Price Terms and Supplementary Prices: Response to ACCC's Position Paper*, 15 July 2014, p. 17.

<sup>142</sup> Optus, *Submission in response to ACCC Position Paper, NPTCs and supplementary prices, FAD* (public version), July 2014, p. 17.

<sup>143</sup> VHA, *FAD: Non-Price Terms and Supplementary Prices: Response to ACCC's Position Paper*, 15 July 2014, p.17.

<sup>144</sup> Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8. TPG, *Submission by TPG (July 2014) to ACCC Telecommunications FAD inquiries – NPTCs and supplementary prices: Position paper (May 2014)*, July 2014, p.6. Optus, *Submission in response to ACCC Position Paper, NPTCs and supplementary prices, FAD* (public version), July 2014, p. 18.

- providing timely cost estimates or invoices noting the desirability to have this information before any orders for network extension are placed,<sup>145</sup> or
- a process for an equivalence requirement whereby Telstra's retail business units are subject to the same SLC that would apply to Telstra's wholesale customers.<sup>146</sup>

Some submitters argued that SLCs should be calculated reasonably and on an 'open book' direct cost recovery basis and that the ACCC should impose a cost orientation obligation on SLCs and other non-recurring charges.<sup>147</sup> Macquarie suggested that the ACCC could undertake an ad hoc review to confirm this has been done.<sup>148</sup> VHA submitted that an access provider should be required to offer to recover SLCs as an increment to the recurring charge for the DTCS link in question.<sup>149</sup>

Telstra submitted that the ACCC should not address SLCs in the DTCS FAD because as previously noted by the ACCC, SLCs are impractical to set due to the nature of these charges which may vary considerably and cannot be predicted in advance.<sup>150</sup> Telstra further submitted that its SLCs are cost-based charges and are set at levels that are directly proportionate to the cost of extending its network.<sup>151</sup>

### **Telstra's Site Enabled Pricing Framework**

The ACCC notes that Telstra introduced the Site Enabled Pricing (SEP) framework in December 2014 following a trial with nine customers during May to August 2014 which saw improvements in transparency and certainty in relation to the quoting process for SLCs.<sup>152</sup> The ACCC understands that the new SEP framework provides greater clarity and certainty for customers through the introduction of:

- **[c-i-c starts] [c-i-c ends].**

Telstra indicates on its wholesale website that since the introduction of the SEP framework in December 2014, the majority of Telstra wholesale customers have taken up the necessary contractual variation and are using the new SEP framework.<sup>153</sup> The framework applies to Telstra wholesale data services such as Ethernet Access and Telstra Business Data Access Solution products, which are competitive products, as well as regulated DTCS products.

### **ACCC consultation with stakeholders**

The ACCC has consulted with stakeholders to gain a better understanding of whether Telstra's SEP framework has addressed the SLC issues previously raised by stakeholders. Stakeholders claim that while the SEP framework has provided clarity and certainty under the

<sup>145</sup> Nextgen, *Nextgen submission on the Telecommunications FAD inquiries – NPTCs and supplementary prices Position Paper*, July 2014, p.7.

<sup>146</sup> Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8.

<sup>147</sup> TPG, *Submission by TPG (July 2014) to ACCC Telecommunications FAD inquiries – NPTCs and supplementary prices: Position paper (May 2014)*, July 2014, p.6. Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8. VHA, *FAD: Non-Price Terms and Supplementary Prices: Response to ACCC's Position Paper*, 15 July 2014, pp.17-18. Optus, *Submission in response to ACCC Position Paper, NPTCs and supplementary prices FAD* (public version), July 2014, p.18.

<sup>148</sup> Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8.

<sup>149</sup> VHA, *FAD: Non-Price Terms and Supplementary Prices: Response to ACCC's Position Paper*, 15 July 2014, p.18.

<sup>150</sup> Telstra, *FAD inquiry on supplementary pricing, Response to ACCC position paper*, 15 July 2015 (public version), p. 8.

<sup>151</sup> Telstra, *FAD inquiry on supplementary pricing, Response to ACCC position paper*, 15 July 2015 (public version), p. 8.

<sup>152</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion paper*, 26 September 2014 (public version), p. 25.

<sup>153</sup> <http://www.telstrawholesale.com.au/service/customer-service/service-improvement/index.htm#.VeY0otR-9aQ>

revised quoting process, the SEP framework has not addressed cost itemisation, cost orientation, equivalence issues or apportioning issues.

### *Cost itemisation/cost orientation*

The ACCC understands that the SEP framework does not provide an itemised breakdown of the quotes for the different categories of work and therefore stakeholders have no visibility over what the quotes relate to and how the quotes are calculated. The lack of transparency means that access seekers cannot determine whether the quotes reflect the cost of providing the service. The ACCC further notes that an access seeker cannot seek alternative providers for the special linkage work if it is unsatisfied with the SLC quote since unlike the FFS and CW, the SLC is a non-contestable charge and must be delivered by Telstra.<sup>154</sup>

In response to the concerns raised, Telstra submits that the SEP framework does not provide for an itemised breakdown of the quotes to ensure that Telstra's commercial arrangements with its suppliers are not disclosed. Telstra further submits that the provision of a non-itemised quote is consistent with standard industry practice.

### *Equivalence issues*

Macquarie in its submission to the 2014 DTCS declaration inquiry noted that **[c-i-c starts] [c-i-c ends]**.<sup>155</sup>

The ACCC understands that the SEP framework only applies to Telstra wholesale customers and the Telstra retail business unit or its enterprise customers are dealt with under a different scheme called an Enterprise Contribution. Telstra states that its retail business units have an analogous process where enterprise customers are charged for network or infrastructure extensions that are required in order for Telstra to provide relevant services. Telstra refers to such processes as a capital or Enterprise contribution rather than a SLC.<sup>156</sup>

### *Apportioning of SLCs between multiple access seekers*

Several access seekers have raised concerns regarding the apportioning of costs for SLCs in situations where there may be multiple access seekers that benefit from a network extension. Macquarie noted that even though a network extension is fully funded by a single access seeker, Telstra reaps the benefit from this arrangement since the transmission link becomes Telstra's asset once the access seeker terminates its contract and the link may be used by Telstra to serve its own customers.<sup>157</sup> Nextgen recommended a process in apportioning special linkage costs between multiple end-users where relevant.<sup>158</sup>

Telstra clarifies that if a network extension is for the sole use of a wholesale customer, then the entire charge is payable by that customer.<sup>159</sup> Telstra states that where it can reasonably be assumed that the network extension will be utilised by other customers, the SLC is apportioned appropriately<sup>160</sup> or not charged, depending on expected demand.<sup>161</sup>

---

<sup>154</sup> The other types of charges under Telstra's SEP framework are the Fee for service (FFS) and Commercial Works (CW) which are both contestable.

<sup>155</sup> Macquarie, Letter to the ACCC on DTCS Declaration Inquiry 2014 Discussion Paper (confidential), July 2013, p.11.

<sup>156</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion paper* (public version), 26 September 2014, p. 25.

<sup>157</sup> Macquarie, *Telecommunications FAD inquiries – NPTCs and supplementary prices*, 23 July 2014, p.8.

<sup>158</sup> Nextgen, *Nextgen submission on the Telecommunications FAD inquiries – NPTCs and supplementary prices Position Paper*, July 2014, p.7.

<sup>159</sup> Telstra, *Submission to the Commission's Draft Report on the review of the declaration for the DTCS* (public version), 14 February 2014, p. 6.

<sup>160</sup> Telstra, *Submission to the Commission's Draft Report on the review of the declaration for the DTCS* (public version), 14 February 2014, p. 6.

<sup>161</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion paper* (public version), 26 September 2014, p. 25.

## ***ACCC draft decision***

The ACCC's draft decision is to include terms and conditions for SLCs which set out an access provider's responsibility to provide cost itemisation for SLC quotes. The ACCC is also proposing that procedures for resolving SLC disputes be introduced which include an escalation process as outlined in Schedule 5 of the draft FAD instrument. The ACCC is not proposing to make NPTCs to address equivalence, apportioning and cost orientation issues.

The reasons for the ACCC's draft decision are discussed below.

### ***Reasons for ACCC draft decision***

The ACCC considers that changes made by Telstra in the introduction of its SEP framework provide improved transparency, efficiency and clarity in the quoting of SLCs. We note that a significant number of wholesale customers have adopted the new process. However, access seekers state that issues of cost itemisation and cost orientation remain.

The ACCC acknowledges the tension between providing itemised cost information of SLCs to an access seeker and the interests of an access provider in disclosing pricing information that may identify its commercial relationships with third party suppliers. Telstra has indicated that it is industry practice not to disclose individual pricing information. However, the ACCC notes that in relation to some retail FFS works Telstra provides a rate card for labour rates for additional contestable work.<sup>162</sup>

The ACCC considers a NPTC which imposes an obligation on access providers to itemise the costs involved in providing an SLC is in the interests of those who have a right to use the service where the NPTC will provide transparency for access seekers and accountability for access providers.

### ***Apportioning of SLC costs***

The ACCC's draft decision is that it will not make terms on apportioning SLC costs. The ACCC has previously indicated that due to the variability of network extensions and therefore, the charges that apply, the ACCC is unable to set prices for SLCs in a FAD.<sup>163</sup>

The ACCC notes the difficulties in apportioning SLCs between multiple access seekers due to the nature of these types of special links being highly variable and whether the network extension is provided for the sole use of one access seeker or a number of access seekers. This means that the apportioning of SLCs cannot be predicted in advance. Therefore the ACCC considers that the apportionment of costs for SLCs remains a commercial decision for access providers to impose on access seekers in the context of each SLC request.

### ***Equivalence***

The ACCC's draft decision is that it will not make FAD terms on equivalence specific to the SLC, which either impose an overarching equivalence commitment, or which would establish service levels that reflect equivalent levels of service. In the decision for the NPTC for the MTAS, the ACCC concluded that Telstra's compliance with its equivalence commitments in the SSU appropriately and effectively addresses the issue of technical and operational equivalence.<sup>164</sup> To replicate these obligations in the DTCS FAD would be unnecessary and may result in dual regulation.<sup>165</sup>

---

<sup>162</sup> <https://www.telstra.com.au/content/dam/tcom/personal/consumer-advice/pdf/ffs.pdf>

<sup>163</sup> ACCC, 2012 DTCS FAD, p 40.

<sup>164</sup> ACCC, 2015 NPTC report, p.29.

<sup>165</sup> ACCC, NPTC Draft Decision, May 2015, pp. 41-42.



The ACCC further notes the SAOs<sup>166</sup> which include an obligation that an access provider must reasonably ensure that the technical and operational quality of the declared service supplied to a service provider is equivalent to what it provides to its retail business units. This forms an additional safeguard for access seekers which ensures equivalence.<sup>167</sup>

### *Cost itemisation*

The ACCC's draft decision is that it would be in the interests of access seekers to include a term requiring cost itemisation. The ACCC considers that it is important for access seekers to have this level of transparency to understand how costs are calculated by an access provider. The ACCC further considers that the obligation on an access provider to provide cost itemisation for SLC quotes will assist an access seeker to determine if a SLC is cost orientated and reasonable. The inclusion of the proposed term may minimise the risk that access seekers are paying for inflated SLCs which do not accurately reflect the cost of providing the special link or network extension.

The ACCC considers that the inclusion of a cost itemisation term will also be in the interest of access providers as it may minimise the risk of disputes between the parties on whether the level of the charge levied by access providers is cost reflective or excessive.

The ACCC further considers that this term is in the LTIE and promotes competition since access seekers may be more inclined to provide services in competition with an access provider if they have better visibility as to how charges are calculated. By having better visibility of an SLC quote, access seekers can use that information to inform business decisions as to whether the network extension is likely to be of commercial value to them.

Access seekers have indicated that the following types of information should be itemised as part of a SLC quote:

- estimated distance of new fibre run in metres
- if new trenching is required, estimated distance of trenching
- estimation of number of labour hours
- cost of any specified materials such as new pit infrastructure, switching equipment, power etc, and
- estimated cost of new equipment and labour hours for associated work in an exchange.

The ACCC acknowledges that the degree of specificity required in an itemised SLC quote will depend on the particular special link or network extension. As noted in the examples above, not all quotes will require the same inputs. However, the ACCC considers that an access provider should provide sufficient information in an SLC quote to allow an access seeker to be able to assess the reasonableness of the quote and determine whether it accurately reflects the cost of providing the special link. The ACCC is therefore proposing that an access provider will need to provide an itemised SLC quote which should include at a minimum, the different categories of work as identified in Schedule 2A of the draft FAD instrument. The ACCC is requesting stakeholder views on whether the level of specificity proposed by the NPTC term on cost itemisation is sufficient for assessing an SLC quote.

### *Cost orientation*

The ACCC does not propose to make a specific term on cost orientation. The ACCC considers that the proposed cost itemisation term is sufficient to address concerns about whether an SLC

---

<sup>166</sup> These are set out in sections 152AR of the CCA.

<sup>167</sup> ACCC, NPTC Draft Decision, May 2015, p. 42.

quote is cost reflective since the proposed term on cost itemisation will assist an access seeker in determining whether the quote for the SLC is reasonable and therefore cost-reflective.

## 8 Duration of the FAD

### **Key Points**

- The ACCC's draft decision is that the DTCS FAD will commence from the date of publication and expire on 31 December 2019, nine months after the 2014 DTCS declaration is due to expire.
- The ACCC considers that the proposed regulatory period balances regulatory and pricing certainty with pricing flexibility.
- While the ACCC does not propose to undertake a formal mid-term price review, it is cognisant of the dynamic nature of the transmission market. As such, the ACCC plans to monitor the transmission market during the term of the FAD and will undertake market inquiries to ensure that regulated prices remain within an expected range.

Access determinations must have an expiry date which aligns with the expiry date of the declaration for the relevant service unless there are circumstances that warrant a different expiry date.<sup>168</sup> The current declaration for the DTCS is due to expire on 31 March 2019.

### **Discussion paper**

The ACCC's July 2014 discussion paper invited comments on what the appropriate duration of the 2015 FAD should be and whether it should coincide with the expiry of the 2014 DTCS declaration. Submitters were also invited to comment on whether the ACCC should conduct a mid-term review of DTCS pricing during the FAD period and if so, when it should take place.

### **Submission**

Submissions to the discussion paper were generally supportive of aligning the expiry date of the 2015 FAD with that of the 2014 declaration (31 March 2019). Both Telstra<sup>169</sup> and Nextgen<sup>170</sup> argued against an earlier expiry date on the basis of regulatory and pricing stability. They noted that long term contracts, typically offered at a discount to access seekers, were important due to large up-front costs. Telstra also warned that setting a shorter duration for the FAD may increase uncertainty and reduce the discounts available to access seekers.

Other submissions noted the importance of balancing price stability and flexibility. VHA supported a 3-5 year duration depending on how well the FAD is able to reflect long term efficiency in DTCS markets and minimise the risk of regulatory error.<sup>171</sup> NBN Co submitted that the appropriate length depends whether the FAD takes into account expected price trends over the FAD period.<sup>172</sup> Optus was the only stakeholder which supported a shorter regulatory period (12 months). Optus also requested that the FAD be subject to frequent review to ensure its pricing remains relevant.<sup>173</sup>

No stakeholders (other than Optus) favoured a predetermined mid-term price review of the FAD, as canvassed in the July 2014 discussion paper. VHA submitted that so long as the 2015 DTCS pricing model is adequately specified, the ACCC needs to only address specific issues

<sup>168</sup> Subsection 152BCF(6) of the CCA.

<sup>169</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion paper* (public version), 26 September 2014, p.28.

<sup>170</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.13.

<sup>171</sup> VHA, *FAD: the DTCS, Primary Prices: Response to the ACCC* (public version), 26 September 2014, p.30.

<sup>172</sup> NBN Co, 2014, *Submission to the ACCC's DTCS FAD Discussion Paper – Primary Prices* (public version), September 2014, p.8.

<sup>173</sup> Optus, *Submission in response to DTCS FAD – Primary Prices* (public version), September 2014, p.28.



as they arise, either through a variation to the FAD or a Binding Rule of Conduct (BROC).<sup>174</sup> Nextgen supported a review of the FAD price terms where there is evidence of market developments that significantly deviate from the FAD or DTCS declaration.<sup>175</sup> Telstra submitted that a mid-term review may pose significant risk to incentives and regulatory stability.<sup>176</sup>

In general, stakeholders participating in the development of the statistical model used for domestic benchmarking (Optus, Telstra and VHA) were not supportive of an annual update of the regulatory model on the grounds that it would be neither practical nor feasible and would place too great a regulatory burden on industry.

### ***ACCC draft decision***

The ACCC draft decision is that the price terms and non-price terms set out in the 2015 DTCS FAD will apply from the date of publication and expire on 31 December 2019, 9 months after the DTCS declaration expires (31 March 2019).

### ***Appropriate time frame for 2015 DTCS FAD***

The ACCC considers that this duration for the DTCS FAD is sufficient to ensure pricing stability and regulatory certainty to support industry investment planning while also providing for pricing which is relevant and current. If the FAD results in unintended consequences in the DTCS market, the ACCC notes that it may consider undertaking an inquiry into varying the FAD or consider issuing a BROC.

In making its draft decision, the ACCC has had regard to current industry practice such as the duration of a typical contract (between 1 and 3 years). The ACCC is cognisant of the role long term contracts have in facilitating planning and investment decisions and the discounts which benefit access seekers. The ACCC notes that most submissions support a regulatory period of between 3-5 years and did not support a shorter regulatory period of 12 months. The ACCC notes Telstra's comments regarding a mid-term review—that is, it would pose a significant risk to incentives and regulatory stability—could apply equally to a FAD with 12 month duration. Furthermore, experts engaged by industry considered an annual update of the regulatory model would be neither practical nor feasible and, would place too great a regulatory burden on industry.

Conversely a longer FAD duration, such as 5 years, is not likely to be practical given the static and backward looking nature of the benchmarking approach used to determine FAD prices. The benchmarking model represents a snap shot of current prices at the time data was submitted to the ACCC. While introducing dynamic pricing was considered (as discussed in section 4.3.6 of this report), it was not considered to be a feasible option with the current available dataset. The ACCC considers that setting the FAD with a long duration may increase the likelihood of regulatory error as the market may shift from current conditions.

### ***Aligning the 2015 DTCS FAD with the 2014 DTCS declaration***

The ACCC draft decision is for the FAD to expire 9 months after the expiry of the DTCS declaration. In specifying an expiry date for an access determination, the ACCC must have regard to the principle that the expiry for the access determination should be the same as the expiry date for the declaration, unless the ACCC considers that there are circumstances that warrant a different expiry date (under subsection 152BCF(6) of the CCA). The ACCC considers that due to the ACCC's domestic benchmarking approach to setting regulated DTCS prices, not aligning the FAD with the declaration is required and warranted

---

<sup>174</sup> VHA, *FAD: the DTCS Primary prices: Response to the ACCC* (public version), 26 September 2014, p.30.

<sup>175</sup> Nextgen, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014, p.13.

<sup>176</sup> Telstra, *DTCS FAD Inquiry – Primary Prices: Response to ACCC Discussion Paper* (public version), 26 September 2014, p.28.

As discussed in section 4.2, the domestic benchmarking approach requires the ACCC to collect a large amount of information from transmission service providers on both regulated and deregulated routes. This is a non-trivial exercise and requires a significant amount of time for both transmission providers and the ACCC. However, if the ACCC were to maintain a domestic benchmarking approach for the next FAD, it would not be feasible for the ACCC to begin data collection for the benchmarking process before the declaration inquiry is completed.

This is because, unlike other declared services, the required information depends directly on the scope of declaration, such as the service description and the deregulated transmission routes. To commence the benchmarking process before the declaration inquiry is completed would be inappropriate as it would require the ACCC to pre-empt its final decision on the declaration of the DTCS. This would be particularly problematic if industry developments, including those related to the NBN rollout, resulted in the scope of the DTCS to be reconsidered in a material way.

For these reasons the ACCC considers that the FAD expiry date should extend beyond the expiry of the declaration. Although it is difficult at this stage to determine how long this period should be, the ACCC considers that 31 December 2019 is a reasonable period. The ACCC also notes that this period can be extended if more time is required.

### *Mid-term review*

The ACCC draft decision is to not set a mid-term price review during the 2015 DTCS FAD. The ACCC notes that submissions to the July 2014 discussion paper were generally not in favour of a mid-term review. The ACCC also considers that a mid-term review would unnecessarily increase the regulatory burden on industry. However, the ACCC notes that if the DTCS FAD leads to any unintended consequences in the DTCS market or the ACCC receives evidence of any market failure, it is able to consider its regulatory options, including a variation inquiry, during the period of the FAD. While the ACCC recognises industry's needs for regulatory stability, it is also cognisant of the dynamic nature of the transmission market and further changes resulting in growth of traffic over the NBN. The ACCC therefore plans to monitor the transmission market and may undertake market inquiries to ensure that regulated prices remain within an expected range when compared with competitive routes. The ACCC does not anticipate these market inquiries would be onerous on industry and the ACCC would seek to utilise, wherever possible, data to which it already has access. Additionally, any market inquiries undertaken would include consultation with a range of stakeholders including, services providers, access seekers and other interested parties.

# Appendices

## A - List of submissions

### Submissions to the ACCC primary pricing discussion paper

Basslink Pty Ltd, *ACCC DTCS FAD Inquiry 2014: Discussion Paper – Primary Prices*, 19 September 2014.

Competitive Carriers Coalition, *Response to Domestic Transmission Capacity Service FAD Primary Prices*, October 2014.

NBN Co, *Submission to the ACCC's DTCS Final Access Determination Inquiry Discussion Paper – Primary Prices*, (Confidential Version) September 2014.

NBN Co, *Submission to the ACCC's DTCS Final Access Determination Inquiry Discussion Paper – Primary Prices*, (Public Version) September 2014.

Nextgen Group, *Submission on the DTCS FAD Discussion Paper – Primary Prices*, September 2014.

SingTel Optus Pty Ltd, *Submission in response to Domestic Transmission Capacity Service Final Access Determination – Primary Prices* (Confidential Version), September 2014.

SingTel Optus Pty Ltd, *Submission in response to Domestic Transmission Capacity Service Final Access Determination – Primary Prices* (Public Version), September 2014.

Telstra Corporation Limited, *Domestic Transmission Capacity Service Final Access Determination Inquiry – Primary Prices: Response to ACCC Discussion Paper (Confidential Version)*, 26 September 2014.

Telstra Corporation Limited, *Domestic Transmission Capacity Service Final Access Determination Inquiry – Primary Prices: Response to ACCC Discussion Paper (Public Version)*, 26 September 2014.

Vodafone Hutchison Australia (VHA), *Final Access Determination: the Domestic Transmission Capacity Service, Primary Prices: Response to the Australian Competition and Consumer Commission* (Confidential Version), 26 September 2014.

Vodafone Hutchison Australia (VHA), *Final Access Determination: the Domestic Transmission Capacity Service, Primary Prices: Response to the Australian Competition and Consumer Commission* (Public Version), 26 September 2014.

### Submissions to Economic Insights' workshop paper

CEG & Esquant Statistical Consulting, *Benchmarking prices for DTCS* (Confidential), May 2015.

Frontier Economics Pty Ltd Australia, *Use of ACCC Dataset for DTCS Benchmarking, A report prepared for Corrs Chambers Westgarth, Author: Professor Robert Bartels*, (Confidential), April 2015.

Professor Trevor Breusch, *Report on: Economic Insights Working Paper prepared for the ACCC in relation to the 2015 DTCS FAD* (Confidential), May 2015.

Telstra Corporation Limited, *Cover Letter: Submissions in Response to Industry and Expert DTCS Workshops and Economic Insights Paper* (Confidential), 1 May 2015.

Telstra Corporation Limited, *Response to Industry and Expert Workshops and Economic Insights Paper* (Confidential), 8 May 2015.

### **Submissions to Economic Insights' Draft Report**

CEG & Esquant Statistical Consulting, *Critique of EI's approach* (Confidential), July 2015.

NBN Co, Email: *Comments on EI's Draft Report*, confidential, received 6 July 2015.

Frontier Economics Pty Ltd Australia, *Review of draft DTCS benchmarking model, A report prepared for Corrs Chambers Westgarth, Author: Professor Robert Bartels* (Confidential), July 2015.

Professor Trevor Breusch, *Report on: Economic Insights Draft Report prepared for the ACCC in relation to the 2015 DTCS FAD* (Confidential), 7 July 2015.

SingTel Optus Pty Ltd, *Comments on Economic Insights Transmission Report* (Confidential), 8 July 2015.

Telstra Corporation Limited, Cover Letter: *Submissions in Response to Economic Insights Draft Report 'Domestic Transmission Capacity Services Benchmarking Model'* (Confidential), 8 July 2015.

Telstra Corporation Limited, *Public inquiry into final access determination for DTCS - primary prices: Response to Economic Insights – DTCS Benchmarking Model – Draft Report* (Confidential), 8 July 2015.

Vodafone Hutchison Australia (VHA), *Final Access Determination: the Domestic Transmission Capacity Service, ACCC Pricing Inquiry, Submission in response to Economic Insights' Draft Report* (Confidential), 8 July 2015.

### **Submissions to the ACCC position paper on non-price terms and conditions and supplementary pricing**

NBN Co Limited, *Telecommunications Final Access Determination inquiries – Non-price terms and conditions and supplementary prices*, 15 July 2014.

Nextgen Group, *Nextgen submission on the "Telecommunications Final Access Determination inquiries – non-price terms and conditions and supplementary prices, Position Paper,"* July 2014.

Macquarie Telecom, *Telecommunications Final Access Determination inquiries – non-price terms and conditions and supplementary prices*, 23 July 2014.

SingTel Optus Pty Ltd, *Submission in response to ACCC Position Paper, Non-price terms and conditions and supplementary prices, Final Access Determination* (Confidential Version), July 2014.

SingTel Optus Pty Ltd, *Submission in response to ACCC Position Paper, Non-price terms and conditions and supplementary prices, Final Access Determination* (Public Version), July 2014.

Telstra Corporation Limited, Cover Letter: *Telecommunications Final Access Determination inquiries – non-price terms and conditions and supplementary prices: Position Paper*, 15 July 2014.

Telstra Corporation Limited, *Final Access Determination inquiry on supplementary pricing, Response to ACCC Position Paper* (Confidential Version) 15 July 2014.

Telstra Corporation Limited, *Final Access Determination inquiry on supplementary pricing, Response to ACCC Position Paper (Public Version)* 15 July 2014.

Thomson Geer Lawyers (on behalf of iiNet Limited), *Telecommunications Final Access Determination inquiries – non-price terms and conditions supplementary prices, Position Paper*, 15 July 2014.

TPG Telecom Limited, *Submission by TPG Telecom Limited (July 2014) to Australian Competition and Consumer Commission (ACCC) Telecommunications Final Access Determination inquiries – non-price terms and conditions and supplementary prices: Position Paper (May 2014)*, July 2014.

Thomson Geer Lawyers (on behalf of Vocus), *Submission to the ACCC in reply to the May 2014 position paper on the Telecommunications Final Access Determination inquiries into non-price terms and conditions and supplementary prices*.

Vodafone Hutchison Australia (VHA), *Final Access Determination: Non-price terms and supplementary prices, Response to the Australian Competition and Consumer Commission's Position Paper*, 15 July 2014.

## B - Legislative framework for access determinations

This section sets out the relevant legislative framework in relation to access determinations (ADs).

### B.1 Content of final access determinations

Section 152BC of the *Competition and Consumer Act 2010* (CCA) specifies what an AD may contain. It includes, among other things, terms and conditions which a carrier or carriage service provider (CSP) is to comply with, the standard access obligations and terms and conditions of access to a declared service.

An AD may make different provisions with respect to different access providers or access seekers.

### B.2 Fixed principles provisions

A FAD may contain a fixed principles provision, which allows a provision in an AD to have an expiry date after the expiry date of the FAD.<sup>177</sup> Such a provision allows the ACCC to 'lock-in' a term so that it would be consistent across consecutive ADs.

### B.3 Varying final access determinations

Section 152BCN allows the ACCC to vary or revoke an AD, provided that certain procedures are followed.

A fixed principles provision cannot be varied or removed unless the AD sets out the circumstances in which the provision can be varied or removed, and those circumstances are present.<sup>178</sup>

### B.4 Commencement and expiry provisions

Section 152BCF of the CCA sets out the commencement and expiry rules for ADs.

An AD must have an expiry date, which should align with the expiry of the declaration for that service unless there are circumstances that warrant a different expiry date.<sup>179</sup>

### B.5 Matters to consider when making FADs

The ACCC must have regard to the matters specified in subsection 152BCA(1) of the CCA when making an AD. These matters are:

- (a) whether the determination will promote the LTIE of carriage services or services supplied by means of carriage services
- (b) the legitimate business interests of a carrier or CSP 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

---

<sup>177</sup> Section 152BCD of the CCA.

<sup>178</sup> Subsection 152BCN(4) of the CCA.

<sup>179</sup> Subsection 152BCF(6) of the CCA.



- (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, and
- (g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

The subsection 152BCA(1) matters reflect the repealed subsection 152CR(1) matters that the ACCC was required to take into account in making a final determination (FD) in an access dispute. The ACCC interprets the subsection 152BCA(1) matters in a similar manner to the approach taken in access disputes.

Subsection 152BCA(2) sets out other matters that the ACCC may take into account in making FADs in certain circumstances.

Subsection 152BCA(3) allows the ACCC to take into account any other matters that it thinks are relevant.

The ACCC's views on how the matters in section 152BCA should be interpreted for the AD process are set out below.

## **B.6 Paragraph 152BCA(1)(a)**

The first matter for the ACCC to consider when making an AD is 'whether the determination will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services'.

The ACCC has published a guideline explaining what it understands by the phrase 'long-term interests of end-users' in the context of its declaration responsibilities.<sup>180</sup> This approach to the LTIE was also used by the ACCC in making determinations in access disputes. The ACCC considers that the same interpretation is appropriate for making the AD for the domestic transmission capacity service (DTCS).

In the ACCC's view, particular terms and conditions promote the interests of end users if they are likely to contribute towards the provision of:

- goods and services at lower prices
- goods and services of a high quality, and/or
- a greater diversity of goods and services.<sup>181</sup>

The ACCC also notes that the Australian Competition Tribunal (Tribunal) has offered guidance in its interpretation of the phrase 'long-term interests of end-users' (in the context of access to subscription television services):

Having regard to the legislation, as well as the guidance provided by the Explanatory Memorandum, it is necessary to take the following matters into account when applying the touchstone – the long-term interests of end-users:

<sup>180</sup> ACCC, *Telecommunications services – declaration provisions: a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999, in particular pp. 31–38.

<sup>181</sup> *ibid.*, p. 33.

\* End-users: "end-users" include actual and potential [users of the service]...

\* Interests: the interests of the end-users lie in obtaining lower prices (than would otherwise be the case), increased quality of service and increased diversity and scope in product offerings. ...[T]his would include access to innovations ... in a quicker timeframe than would otherwise be the case ...

\* Long-term: the long-term will be the period over which the full effects of the ... decision will be felt. This means some years, being sufficient time for all players (being existing and potential competitors at the various functional stages of the ... industry) to adjust to the outcome, make investment decisions and implement growth – as well as entry and/or exit – strategies.<sup>182</sup>

To consider the likely impact of particular terms and conditions on the LTIE, the CCA requires the ACCC to have regard to whether the terms and conditions are likely to result in:

- promoting competition in markets for carriage services and services supplied by means of carriage services
- achieving any-to-any connectivity, and
- encouraging the economically efficient use of, and economically efficient investment in:
  - the infrastructure by which listed carriage services are supplied, and
  - any other infrastructure by which listed services are, or are likely to become, capable of being supplied.<sup>183</sup>

### ***Promoting competition***

In assessing whether particular terms and conditions will promote competition, the ACCC analyses the relevant markets in which the declared services are supplied (retail and wholesale) and considers whether the terms set in those markets remove obstacles to end-users gaining access to telephony and broadband services.<sup>184</sup>

Obstacles to accessing these services include the price, quality and availability of the services and the ability of competing providers to provide telephony and broadband services.

The ACCC is not required to precisely define the scope of the relevant markets in which the declared services are supplied. The ACCC considers that it is sufficient to broadly identify the scope of the relevant markets likely to be affected by the ACCC's regulatory decisions.

The ACCC's view is that the relevant markets for the purpose of making the AD for the DTCS are wholesale transmission and the range of retail services (that use transmission services) delivered over optical fibre. This includes the national long distance, international call, data and IP-related markets.<sup>185</sup>

### ***Any-to-any connectivity***

The CCA gives guidance on how the objective of any-to-any connectivity is achieved. It is achieved only if each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, with each

---

<sup>182</sup> *Seven Network Limited (No 4)* [2004] ACompT 11 at [120].

<sup>183</sup> Subsection 152AB(2) of the CCA.

<sup>184</sup> Subsection 152AB(4) of the CCA. This approach is consistent with the approach adopted by the Tribunal in *Telstra Corporations Limited (No 3)* [2007] ACompT 3 at [92]; *Telstra Corporation Limited* [2006] ACompT at [97], [149].

<sup>185</sup> See also the 2014 DTCS declaration, p.27 and 2012 DTCS FAD variation, p.65.

other end-user who is supplied with the same service or a similar service. This must be the case whether or not the end-users are connected to the same telecommunications network.<sup>186</sup>

The ACCC considers that this matter is relevant to ensuring that the terms and conditions contained in an AD do not create obstacles for the achievement of any-to-any connectivity.

### ***Efficient use of and investment in infrastructure***

In determining the extent to which terms and conditions are likely to encourage the economically efficient use of and investment in infrastructure, the ACCC must have regard to:

- whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:
  - the technology that is in use, available or likely to become available
  - whether the costs involved in supplying and charging for, the services are reasonable or likely to become reasonable, and
  - the effects or likely effects that supplying and charging for the services would have on the operation or performance of telecommunications networks
- the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope
- incentives for investment in the infrastructure by which services are supplied; and any other infrastructure (for example, the NBN) by which services are, or are likely to become, capable of being supplied, and
- the risks involved in making the investment.<sup>187</sup>

The objective of encouraging the 'economically efficient use of and economically efficient investment in ... infrastructure' requires an understanding of the concept of economic efficiency. Economic efficiency consists of three components:

- productive efficiency – this is achieved where individual firms produce the goods and services that they offer at least cost
- allocative efficiency – this is achieved where the prices of resources reflect their underlying costs so that resources are then allocated to their highest valued uses (i.e., those that provide the greatest benefit relative to costs), and
- dynamic efficiency – this reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

On the issue of efficient investment, the Tribunal has stated that:

An access charge should be one that just allows an access provider to recover the costs of efficient investment in the infrastructure necessary to provide the declared service.<sup>188</sup>

---

<sup>186</sup> Subsection 152AB(8) of the CCA.

<sup>187</sup> Subsections 152AB(6) and (7A) of the CCA.

<sup>188</sup> Telstra Corporation Ltd (No. 3) [2007] ACompT 3 at [159].

...efficient investment by both access providers and access seekers would be expected to be encouraged in circumstances where access charges were set to ensure recovery of the efficient costs of investment (inclusive of a normal return on investment) by the access provider in the infrastructure necessary to provide the declared service.<sup>189</sup>

...access charges can create an incentive for access providers to seek productive and dynamic efficiencies if access charges are set having regard to the efficient costs of providing access to a declared service.<sup>190</sup>

## B.7 Paragraph 152BCA(1)(b)

The second matter requires the ACCC to consider ‘the legitimate business interests’ of the carrier or CSP when making an AD.

In the context of access disputes, the ACCC considered that it was in the access provider’s legitimate business interests to earn a normal commercial return on its investment.<sup>191</sup> The ACCC is of the view that the concept of ‘legitimate business interests’ in relation to ADs should be interpreted in a similar manner, consistent with the phrase ‘legitimate commercial interests’ used elsewhere in Part XIC of the CCA.

For completeness, the ACCC notes that it would be in the access provider’s legitimate business interests to seek to recover its costs as well as a normal commercial return on investment having regard to the relevant risk involved. However, an 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.<sup>192</sup>

The Tribunal has taken a similar view of the expression ‘legitimate business interests’.<sup>193</sup>

## B.8 Paragraph 152BCA(1)(c)

The third matter requires the ACCC to consider ‘the interests of all persons who have the right to use the service’ when making an AD.

The ACCC considers that this matter requires it to have regard to the interests of access seekers. The Tribunal has also taken this approach.<sup>194</sup> The access seekers’ interests would not be served by higher access prices to declared services, as it would inhibit their ability to compete with the access provider in the provision of retail services.<sup>195</sup>

People who have rights to currently use a declared service will generally use that service as an input to supply carriage services, or a service supplied by means of carriage service, to end-users.

The ACCC considers that this class of persons has an interest in being able to compete for the custom of end-users on the basis of their relative merits. This could be prevented from occurring if terms and conditions of access favour one or more service providers over others, thereby distorting the competitive process.<sup>196</sup>

---

<sup>189</sup> *ibid.* at [164].

<sup>190</sup> *ibid.*

<sup>191</sup> ACCC, *Resolution of telecommunications access disputes – a guide*, March 2004 (revised) (Access Dispute Guidelines), p. 56.

<sup>192</sup> ACCC, *Access pricing principles—telecommunications*, July 1997 (1997 Access Pricing Principles), p. 9.

<sup>193</sup> Telstra Corporation Limited [2006] ACompT 4 at [89].

<sup>194</sup> Telstra Corporation Limited [2006] ACompT 4 at [91].

<sup>195</sup> *ibid.*

<sup>196</sup> *ibid.*

However, the ACCC does not consider that this matter calls for consideration to be given to the interests of the users of these 'downstream' services. The interests of end-users will already be considered under other matters.

## B.9 Paragraph 152BCA(1)(d)

The fourth matter requires the ACCC to consider 'the direct costs of providing access to the declared service' when making an AD.

The ACCC considers that the direct costs of providing access to a declared service are those incurred (or caused) by the provision of access.

The ACCC interprets this matter, and the use of the term 'direct costs', as allowing consideration to be given to a contribution to indirect costs. This is consistent with the Tribunal's approach in an undertaking decision.<sup>197</sup> A contribution to indirect costs can also be supported by other matters.

However, the matter does not extend to compensation for loss of any 'monopoly profit' that occurs as a result of increased competition.<sup>198</sup>

The ACCC also notes that the Tribunal (in another undertaking decision) considered that the direct costs matter 'is concerned with ensuring that the costs of providing the service are recovered.'<sup>199</sup> The Tribunal has also noted that the direct costs could conceivably be allocated (and hence recovered) in a number of ways and that adopting any of those approaches would be consistent with this matter.<sup>200</sup>

## B.10 Paragraph 152BCA(1)(e)

The fifth matter requires that the ACCC consider 'the value to a party of extensions, or enhancements of capability, whose cost is borne by someone else' when making an AD.

In the 1997 Access Pricing Principles, the ACCC stated that this matter:

...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.<sup>201</sup>

The ACCC considers that this application of paragraph 152BCA(1)(e) is relevant to making ADs.

## B.11 Paragraph 152BCA(1)(f)

The sixth matter requires the ACCC to consider 'the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility' when making an AD.

The ACCC considers that this matter requires that terms of access should not compromise the safety or reliability of carriage services and associated networks or facilities, and that this has direct relevance when specifying technical requirements or standards to be followed.

<sup>197</sup> Application by Optus Mobile Pty Limited and Optus Networks Pty Limited [2006] ACompT 8 at [137].

<sup>198</sup> See Explanatory Memorandum for the *Trade Practices Amendment (Telecommunications) Bill 1996*, p. 44: [T]he 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market.

<sup>199</sup> Telstra Corporation Limited [2006] ACompT 4 at [92].

<sup>200</sup> *ibid.* at [139].

<sup>201</sup> ACCC, 1997 Access Pricing Principles, p. 11.

The ACCC has previously stated in the context of model non-price terms and conditions, it is of the view that:

...this consideration supports the view that model terms and conditions should reflect the safe and reliable operation of a carriage service, telecommunications network or facility. For instance, the model non-price terms and conditions should not require work practices that would be likely to compromise safety or reliability.<sup>202</sup>

The ACCC considers that these views will apply in relation to paragraph 152BCA(1)(f) for the making of ADs.

## B.12 Paragraph 152BCA(1)(g)

The final matter of subsection 152BCA(1) requires the ACCC to consider 'the economically efficient operation of a carriage service, a telecommunications network facility or a facility' when making an AD.

The ACCC noted in the Access Dispute Guidelines (in the context of arbitrations) that the phrase 'economically efficient operation' embodies the concept of economic efficiency as discussed earlier under the LTIE. That is, it calls for a consideration of productive, allocative and dynamic efficiency. The Access Dispute Guidelines also note that in the context of a determination, the ACCC may consider whether particular terms and conditions enable a carriage service, telecommunications network or facility to be operated efficiently.<sup>203</sup>

Consistent with the approach adopted by the Tribunal, the ACCC considers that in applying this matter, it is relevant to consider the economically efficient operation of:

- retail services provided by access seekers using the access provider's services or by the access provider in competition with those access seekers, and
- the telecommunications networks and infrastructure used to supply these services.<sup>204</sup>

## B.13 Subsection 152BCA(2)

Subsection 152BCA(2) provides that, in making an AD that applies to a carrier or CSP who supplies, or is capable of supplying, the declared services, the ACCC may, if the carrier or provider supplies one or more eligible services,<sup>205</sup> take into account:

- the characteristics of those other eligible services
- the costs associated with those other eligible services
- the revenues associated with those other eligible services, and
- the demand for those other eligible services.

The Explanatory Memorandum states that this provision is intended to ensure that the ACCC, in making an AD, does not consider the declared service in isolation, but also considers other relevant services.<sup>206</sup> As an example, the Explanatory Memorandum states:

---

<sup>202</sup> ACCC, Final Determination – Model Non-price Terms and Conditions, November 2008, p. 8.

<sup>203</sup> ACCC, Access Dispute Guidelines, p. 57.

<sup>204</sup> *Telstra Corporation Limited* [2006] ACompT at [94]–[95].

<sup>205</sup> 'Eligible service' has the same meaning as in section 152AL of the CCA.

<sup>206</sup> Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, p. 178.

...when specifying the access price for a declared service which is supplied by an access provider over a particular network or facility, the ACCC can take into account not only the access provider's costs and revenues associated with the declared service, but also the costs and revenues associated with other services supplied over that network or facility.<sup>207</sup>

## **B.14 Subsection 152BCA(3)**

This subsection states the ACCC may take into account any other matters that it thinks are relevant when making an AD.

The ACCC is of the view that considerations of regulatory certainty and consistency will be important when setting the terms and conditions of the DTCS AD.

The ACCC also considers that it should have regard to:

- its previous decisions in relation to the DTCS
- consultation documents and submissions in response to those documents, and
- information provided to the ACCC by stakeholders.

These considerations and documents do not limit the matters that the ACCC may have regard to when making the AD for the DTCS.

---

<sup>207</sup> *ibid.*



## C - Treatment and collection of benchmarking data

The ACCC's final dataset to Economic Insights and industry experts contained 18 247 observations and the following information:

- **Customer Name**—Name of the customer acquiring the service. The customer name was removed from the final dataset provided to Economic Insights and the experts engaged by industry.
- **A-end and B-end site address**—Site address or location of where the service originates (A-end) and terminates (B-end). The ACCC engaged external consultants to convert the physical address and geographic coordinates of exchange service area (ESA) locations to ascertain the A-end ESA and B-end ESA for each observation.
- **Name of product**—The product being supplied by name and reference number (e.g. x162, Managed Leased Line Service, or BroadLink)
- **Interface type**—The technology used for at either end of the transmission link. The ACCC categorised interface types into three categories: Ethernet, SDH, Ethernet over SDH (EoSDH) or Dense Wavelength Division Multiplexing (DWDM)
- **Distance (km)**—The distance of the service in km. This information was not submitted by all the service providers. To ensure consistency, the ACCC engaged external consultants to calculate the radial distance (in km) between the A-end ESA and B-end ESA. Radial distance is the shortest path between two points and is typically shorter than the actual path of the transmission infrastructure. Economic Insights estimated a small number of missing distance observations by calculating the average relationship between ESA-to-ESA distance and other measures of distance in the dataset.
- **Capacity (Mbps)**—The capacity of the service measured in Mbps.
- **Recurring monthly charge**—Actual monthly charge for the service.
- **Connection charges**—Actual one off charges not included in monthly billing amount, what one-off charges apply to the service, including whether these charges have been waived.
- **Route category**—Geographic classification of the route determined by the ACCC in its 2014 declaration decision.<sup>208</sup> The routes were classified into one of four categories:
  - *Inter-capital*: a route from an ESA within the boundary of a capital city<sup>209</sup> to an ESA within the boundary of another capital city
  - *Regional*: a route where either or both the A-end and B-end are outside the boundary of a capital city
  - *Metropolitan*: a route where both the A-end and B-end are within the boundary of a the same capital city
  - *Tail-end*: a route where both the A-end and B-end are within the same ESA
- **Protection**—Whether the service is protected and how e.g. geographic diversity, access interface or other. Some providers were unable to provide information on whether their services provided protection as they did not hold sufficiently detailed contractual records. Where this occurred, the ACCC ascertained whether protection was provided and how by referring to supplementary documents available on the service provider's website. The

<sup>208</sup> <https://www.accc.gov.au/regulated-infrastructure/communications/transmission-services-facilities-access/domestic-transmission-capacity-service-declaration-2013-2014>

<sup>209</sup> The boundaries of each capital city are defined in the varied DTCS service description made in March 2014.

ACCC constructed two indicator variables in relation to protection—geographic and electronic protection.

- **Service Level**—Details of any service level agreement or service assurance charges that applies to the service (for example, 99.9 or 99.95 per cent service availability). Where a provider did not identify a service level agreement target, these were derived from the provider’s service documents (found on the company’s website).
- **Commencement date of contract**—The start date of the service contracts.
- **Contract term**—The duration of the contract in months and any conditions relating to this term.
- **Discounts and rebates**—Any discounts or rebates provided and if they have been included in the monthly billing amount, or when these may be applied, including whether any:
  - contract term discounts apply to this service
  - bundling discounts apply to this service, including any whole-of-business discounts and the size and extent of the bundle
  - minimum spend discounts apply to the service
  - volume discounts apply to the service
  - other discounts or rebates apply to the service
- **Quality of Service (QoS)**—To identify heterogeneity between the service providers the ACCC classified the service providers into 4 categories labelled QoS 1, 2, 3 and 4. The categories are to identify service providers with a similar geographic footprint or market presence. For example, QoS 4 identifies providers with an exclusive metro footprint, while QoS 1 and 2 identifies those with a national footprint.

#### **Possible demand metrics derived by the ACCC**

- National Broadband Network (NBN) Points of Interconnects (POIs) – whether either the A-end or B-end ESAs has an NBN POI.
- The average number of access seekers – The number of firms seeking access to Telstra’s copper fixed line services (Unconditioned Local Loop Service and Line Sharing Service or ULLS/LSS) in order to provide end-user customers with ADSL or voice services at the A-end and B-end ESAs summed and divided by 2.
- Average number of SIO – The total number of Telstra copper fixed line SIO at the A-end and B-end ESAs summed and divided by 2.
- SIO density – The average number of SIO divided by the average size of the ESA (km<sup>2</sup>).
- Route throughput (Mbps) – The total contracted capacity for each route in the dataset.
- ESA throughput (Mbps) –The total contracted DTCS capacity for each A-end and B-end ESA in the dataset.
- Route throughput (Mbps) by service provider – The total contracted DTCS capacity for each unique route in the dataset.
- Root Sum of Squares<sup>210</sup> – The total number of SIOs at each ESA is squared and summed together and then the square root is taken (Root Sum of Squares method).

---

<sup>210</sup> Telstra’s public response to the Commission’s price terms in the draft final access determination for the Domestic Transmission Capacity Service, 9 March 2012, p.18, <http://www.accc.gov.au/system/files/Telstra%20Submission%20-%20Draft%20DTCS%20FAD%20-%20Price%20Terms%20-%20March%202012.pdf>

- Adjusted SIOs using Root Sum of Squares method – The total number of SIOs by type (i.e. voice only services, ADSL services bundled with voice services, ULLS services, etc) at each ESA is squared and summed together and then the square root is taken.
- Adjusted SIOs weighted by bandwidth – The average number of SIOs is adjusted to reflect the difference in capacity required for voice only service (an average of 0.64 kbps per SIO) compared to the data rate for DSL Broadband (an average of 1088 kbps per SIO).<sup>211</sup>

#### **Possible supply metrics derived by the ACCC**

- Average number providers – The number of firms with their own transmission infrastructure within 150 meters of a Telstra exchange at the A-end and B-end ESAs summed and divided by 2.
- Total number of DTCS transmission providers at A-end or B-end – The number of DTCS transmission service providers providing services at the A-end ESA or B-end ESA.
- Number of DTCS transmission providers at A-end or B-end (not top 4) – The number of smaller DTCS transmission service providers providing services at the A-end ESA or B-end ESA.
- Number of DTCS transmission providers on route – The number of DTCS transmission providers providing services on a route.
- Number of DTCS transmission providers on route (not top 4) – The number of small DTCS transmission providers providing services on a route.
- Total unique DTCS transmission services provided from A-end and B-end – The number of DTCS transmission services being provided from the A-end ESA or B-end ESA on the route.
- Total unique DTCS transmission services provided on route – The number of DTCS transmission services being provided on the route.

---

<sup>211</sup> ABS 8153.0 - Internet Activity, Australia, June 2014.