



**Australian  
Competition &  
Consumer  
Commission**

# **TRANSMISSION CAPACITY SERVICE**

**An ACCC *Discussion Paper* reviewing the declaration for the domestic  
transmission capacity service**

**September 2003**

# 1. Introduction

## 1.1 Background

The Australian Competition and Consumer Commission (“the Commission”) is to conduct a review of the declared transmission capacity service. The purpose of the review is to determine whether or not to extend the expiry date of the declaration, or to allow the declaration to expire. The review will also consider whether or not the declaration should be varied or revoked or replaced by a new declaration.

The ACCC is required to conduct this review pursuant to section 152ALA of the *Trade Practices Act 1974*. The review is to be conducted pursuant to Part 25 of the *Telecommunications Act 1997*.

The transmission capacity service is used for the transmission of voice, data or other communications between a point of interconnection located in different capital cities and regional centres throughout Australia. The Commission deemed various types of transmission capacity as declared services when it became the telecommunications competition regulator on 30 June 1997.<sup>1</sup>

Declaration means that an access provider supplying transmission capacity to itself or another person must also supply the service, upon request, to carriage service providers (CSPs). Declaration ensures service providers have access to the inputs they need to supply competitive communications services to end-users and in accordance with the standard access obligations in s. 152AR of the Act.

On 4 November 1998, the Commission varied the declaration of transmission capacity following a public inquiry process.<sup>2</sup> The variations involved adding to the declaration intercapital routes other than the Melbourne-Canberra-Sydney routes. In addition, the Commission established a monitoring program to assess aspects of market structure and market conduct on both the declared and non-declared intercapital routes. The monitoring program began in March 1999 and involves periodically collecting data (on a voluntary basis) from specified carriers and CSPs that provide a wholesale intercapital transmission service.

In May 2001, following a public inquiry, the Commission decided to vary the declaration to remove the remaining intercapital transmission routes, on the basis that increasing/impending entry was stimulating competition on these routes. The monitoring program was extended to monitor whether competition developed as expected on these intercapital routes.

---

<sup>1</sup> ACCC Deeming of Telecommunications Services, June 1997.

<sup>2</sup> ACCC, *Competition in data markets – Inquiry Report*, Chapter 4, November 1998.

## 1.2 Purpose

The purpose of this Discussion Paper is to:

- identify the issues which, in the Commission's opinion, are relevant to the review of the existing declaration which currently applies to specified transmission services; and
- set out background material about, and discussion of, those issues which the Commission seeks comment on from industry participants, other stakeholders (including end-users) and the public more generally.

**Section Two** outlines the timetable and inquiry process for the declaration review.

**Section Three** outlines the legislative background for the declaration review

**Section Four** provides a description of transmission services and the monitoring program.

**Section Five** sets out the main matters that the Commission would like submissions to deal with.

**Section Six** outlines the factors the Commission must have regard to when developing pricing principles for declared services.

## 2. Timetable and Inquiry Process

### 2.1 Declaration review process

In December 2002, transitional provisions associated with the new Section 152ALA of the Act came into force. Under these new provisions, the Commission was required to specify an expiry date for existing declarations within five years of the commencement of these provisions. In light of this requirement, in May 2003 the Commission outlined a timetable for the expiry of all existing declarations.<sup>3</sup>

At this time, the Commission noted that it had previously conducted two public inquiries into variations to the declaration of the transmission capacity service and that it continued to monitor competition on the non-declared intercapital transmission routes. Accordingly, the Commission deemed it appropriate to review this declaration early in the declaration review process, and decided on an expiry date of March 2004.

The Commission has now decided to hold a public inquiry to review the existing declaration on the transmission capacity service. A review of this nature will require giving consideration to whether the existing declaration should be maintained, varied or revoked. As noted above, the Commission's decision in this regard must be finalised before the declaration's expiry in March 2004.

### 2.2 Timetable for the Inquiry

Under the *Telecommunications Act 1997*, the Commission must provide a reasonable opportunity for any member of the public to make a written submission to a public inquiry. Accordingly, the Commission requests written submissions by **Friday 26 September 2003**.

At this stage, the Commission does not propose to hold a public hearing but may consider doing so in light of the written submissions. In lieu of a public hearing, it may be appropriate to hold a 'roundtable' discussion to discuss relevant issues.

The Commission expects that it will publish a draft report setting out its preliminary findings by the end of November 2003. The Commission will then provide an opportunity to comment on the draft report prior to finalising the inquiry report.

Further detail of the Commission's approach to declaration inquiries is outlined in its *Telecommunications services – Declaration provisions*, July 1999.

---

<sup>3</sup> ACCC Publication, *Expiry Dates for Declared Services*, May 2003.

## 2.3 Making submissions

As noted earlier, the Commission encourages industry participants, other stakeholders and the public more generally to consider the matters set out in Sections 5 and 6 of this Discussion Paper, and to make submissions to the Commission to assist it in determining whether to maintain, vary or revoke the existing declaration for the transmission capacity service.

It has been the Commission's experience that submissions have not always addressed the issues identified in the relevant Discussion Paper. Persons considering making a submission to the inquiry may consider discussing their proposed submission with the Commission at an early opportunity, to facilitate the provision of relevant information that meets the Commission's needs in the inquiry.

To foster an informed and robust consultative process, the Commission proposes to treat all submissions as non-confidential, unless the submissions indicate otherwise. Unless the author of a submission requests that the submission be kept confidential, written submissions given to the Commission will be made available to interested parties upon request.

Submissions can be addressed to:

Stephen Farago  
Director – Regulatory  
Telecommunications  
Australian Competition and Consumer Commission  
GPO Box 520J  
Melbourne VIC 3001

In addition to a hard copy, people making submissions are encouraged to provide an electronic copy of the submission to [stephen.farago@accc.gov.au](mailto:stephen.farago@accc.gov.au).

Enquiries can be made to Stephen Farago on (03) 9290 1832.

## 3. Legislative Background

### 3.1 The access regime

Part XIC of the Act establishes a regime for regulated access to carriage services and services which facilitate the supply of carriage services. Access obligations in relation to a particular service are established following the declaration of that service by the Commission. Once a service is declared, access seekers must be provided with that service and specified ancillary services, on request, by any access provider supplying, or proposing to supply, those services to any person (including to themselves). The access regime thus enables access seekers to supply carriage or content services to their customers without the (potentially anti-competitive) restriction of key services by access providers.

The terms and conditions of supply can be agreed through commercial negotiations. If the access provider or access seeker cannot agree on the terms and conditions of supply, either party can seek Commission arbitration of disputes over access terms and conditions to declared services. Where a relevant access undertaking (accepted by the Commission) exists, an arbitration determination made by the Commission on access by the access seeker to the declared service must not be inconsistent with that undertaking.

### 3.2 Maintaining, varying or revoking an existing declaration

Section 152ALA of the *Trade Practices Act 1974* ('the Act') requires the Commission to review each declaration within the year preceding its expiry date.

The purpose of the review, as set out in section 152ALA(7) of the Act, is to determine whether or not the expiry date of the declaration should be extended, or whether a declaration should be allowed to expire. The review is also to determine whether or not a declaration should be varied or revoked or a new declaration made. An extension to an expiry date, or the expiry date for a new declaration, may not be for a period exceeding five years.

The purpose of holding a public inquiry is to assist the Commission to determine whether it is satisfied that maintaining, varying or revoking the existing declaration would promote the LTIE of carriage services and services provided by means of carriage services. In this regard, the Commission must:

- hold a public inquiry in accordance with Part 25 of the *Telecommunications Act 1997* on whether to maintain, vary or revoke the existing service declaration;
- prepare and publish a report setting out the Commission's findings as a result of that public inquiry; and
- be satisfied that maintaining, varying or revoking the service declaration or will promote the LTIE of carriage services or of services provided by means of carriage services.

The Commission's power to make a new declaration, to extend an expiry date for a

declaration or to vary or revoke the current declaration, is set out in section 152AL, 152ALA and 152AO of the Act respectively. However, should the Commission determine to make a new declaration or vary or revoke the existing declaration as a result of the current inquiry, it will not be required to conduct a separate inquiry pursuant to those sections of the Act (provided that the declaration, variation or revocation is made within 180 days of the report that is to be issued as a result of the current inquiry).

### **3.3 The Commission's approach to the LTIE test**

Section 152AB(2) of the Act provides that, in determining whether something promotes the LTIE, regard must be had to the extent to which maintaining, varying or revoking the existing service declaration is likely to achieve the following objectives:

- promoting competition in markets for listed (that is, telecommunications) 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.

These matters are interrelated. In many cases, the LTIE may be promoted through the achievement of two or all of these criteria simultaneously. In other cases, the achievement of one of these criteria may involve some trade-off in terms of another criteria, and the Commission will need to weigh up the different effects to determine whether maintaining, varying or revoking the declaration promotes the LTIE. In this regard, the Commission will interpret long-term to mean a balancing of the flow of costs and benefits to end-users over time in relation to the criteria. Thus, it may be in the LTIE to receive a benefit for even a short period of time if its effect is not outweighed by any longer term costs.

#### **3.3.1 Promoting competition**

The first criterion requires the Commission to make an assessment as to whether maintaining, varying or revoking the service declaration would be likely to promote competition in the markets for telecommunications services.

Section 152AB(4) of the Act requires that, in interpreting this criterion, regard must be had to, but is not limited to, the extent to which the arrangements will remove obstacles to end-users gaining access to carriage services. The Explanatory Memorandum to Part XIC of the Act states that:

...it is intended that particular regard be had to the extent to which the [declaration] would enable end-users to gain access to an increased range or choice of services.<sup>4</sup>

The concept of competition is of fundamental importance to the Act and has been discussed many times in connection with the operation of Part IIIA, Part IV, Part XIB and Part XIC of the Act.

---

<sup>4</sup> *Trade Practices (Telecommunications) Amendment Act 1997*, Explanatory Memorandum, p 41.

In general terms, competition is the process of rivalry between firms, where each market participant is constrained in its price and output decisions by the activity of other market participants. The Trade Practices Tribunal (now the Australian Competition Tribunal) stated that:

In our view effective competition requires both that prices should be flexible, reflecting the forces of demand and supply, and that there should be independent rivalry in all dimensions of the price-product-service packages offered to consumers and customers.

Competition is a process rather than a situation. Nevertheless, whether firms compete is very much a matter of the structure of the markets in which they operate.<sup>5</sup>

Competition can provide benefits to end-users including lower prices, better quality and a better range of services over time. Competition may be inhibited where the structure of the market gives rise to market power. Market power is the ability of a firm or firms profitably to constrain or manipulate the supply of products from the levels and quality that would be observed in a competitive market for a significant period of time.

The establishment of a right for third parties to negotiate access to certain services on reasonable terms and conditions can operate to constrain the use of market power that could be derived from the control of these services. Accordingly, an access regime such as Part IIIA or Part XIC attempts to *limit* or reduce the sources of market power and consequent anti-competitive *conduct*, rather than directly regulating conduct which may flow from its use, which is the role of Part IV and Part XIB of the Act. Nonetheless, in any given challenge to competition, both Parts XIB (or IV) and XIC may be necessary to address anti-competitive behaviour.

To assist in determining the impact of potential variation or revocation of the declaration on downstream markets, the Commission will need to identify the relevant market(s) and assess the likely effect of the variation or revocation on competition in each market.

Section 4E of the Act provides that the term “market” includes a market for the goods or services under consideration and any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The Commission’s approach to market definition is discussed in its *Merger guidelines*, June 1999 and is canvassed in its information paper, *Anti-competitive conduct in telecommunications markets*, August 1999.

It should be noted, however, that the Commission’s approach to market definition in relation to service declaration does not require the determination of a definitive or determinative market definition as is the case in a Part IV or Part XIB case.<sup>6</sup> This approach was also recently endorsed by Wilcox J in his recent decision to uphold the validity of certain broadcasting access declarations by the Commission.<sup>7</sup>

---

<sup>5</sup> Re Queensland Co-operative Milling Association Ltd and Defiance Holdings Ltd (1976), *Australian Trade Practices Reporter* 40-012, at 17,245.

<sup>6</sup> See the Commission’s *Telecommunications services – Declaration provisions*, July 1999, report.

<sup>7</sup> Refer to Federal Court of Australia transcript of *Foxtel Management Pty Ltd v Australian Competition and Consumer Commission* [2000] FCA 589 at p. 65.



The second step is to assess the likely effect of the proposal on competition in each relevant market. As noted above, section 152AB(4) requires that regard must be had to the extent to which the proposal will remove obstacles to end-users gaining access to carriage services.

The term “obstacles” is best read, in the Commission’s view, as a reference to barriers facing new entrants in the markets for services arising from the need to use the network infrastructure services to be able to compete. In this regard, an access regime can remove those obstacles by facilitating entry and therefore providing end-users with a choice of suppliers from which to obtain services. For example, access to intercapital transmission capacity may enable more service providers to request capacity to provide voice and data transmission between capital cities to end-users. This gives end-users more choice of service providers.

Where existing market conditions already, or are likely to, provide for the competitive supply of services, the access regime should not impose regulated access.<sup>8</sup> This recognises the costs of providing access, such as administration and compliance, as well as potential disincentives to investment. Regulated provision of services will only be desirable where it leads to benefits in terms of lower prices, better services or improved service quality for end-users which outweigh any costs of regulation.

In the context of considering whether a variation to, or revocation of, a service declaration will promote competition, it is therefore appropriate to examine the impact of the (alternative) service description on each relevant market, and compare the state of competition in that market before and after the proposed variation or revocation. In examining the market structure, the Commission considers that competition is promoted when market structures are altered such that the exercise of market power becomes more difficult; for example, because barriers to entry have been lowered (permitting more efficient competitors to enter a market and thereby constrain the pricing behaviour of the incumbents) or because the ability of firms to raise rival’s costs is restricted.

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

The second criterion requires the Commission to make an assessment as to whether maintaining, varying or revoking the service declaration would be likely to achieve any-to-any connectivity in relation to carriage services that involve communication between end-users.

Section 152AB(8) provides that the criterion of any-to-any connectivity is achieved if, and 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, or a similar service, with each other whether or not they are connected to the same network.

The reference to “similar” services in the Act enables this criterion to apply to services with analogous, but not identical, functional characteristics, such as fixed and mobile voice telephony services or Internet services which may have differing characteristics.

---

<sup>8</sup> *Trade Practices (Telecommunications) Amendment Act 1997*, Explanatory Memorandum.

The any-to-any connectivity criterion is particularly relevant when considering services that involve communications between end-users.<sup>9</sup> When considering other types of services (such as carriage services which are inputs to an end-to-end service or distribution services such as the carriage of pay television), the Commission considers that this criterion will be given less weight compared to the other two criteria.

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

The third criterion requires the Commission to make an assessment as to whether maintaining, varying or revoking the service declaration would be likely to encourage the economically efficient use of, and economically efficient investment in, the infrastructure by which telecommunications services are supplied.

Economic efficiency has three components:

- *productive efficiency* refers to the efficient use of resources within each firm such that all goods and services are produced using the least cost combination of inputs;
- *allocative efficiency* refers to the efficient allocation of resources across the economy such that the goods and services that are produced in the economy are the ones most valued by consumers. It also refers to the distribution of production costs amongst firms within an industry to minimise industry-wide costs; and
- *dynamic efficiency* refers to the efficient deployment of resources between present and future uses such that the welfare of society is maximised over time. Dynamic efficiency incorporates efficiencies flowing from innovation leading to the development of new services, or improvements in production techniques.

The Commission will need to ensure that the access regime does not discourage investment in networks or network elements where it is efficient. However, where it is inefficient to require investment in a number of networks or network elements, the access regime may play an important role in ensuring that existing infrastructure is used efficiently. For instance, even where a higher utilisation of a network may be more efficient, a network owner with market power may deny access, in the absence of an access regime.

Section 152AB(6) provides that, in interpreting this criterion, regard must be had to, but is not limited to, the following:

- whether it is technically feasible for the services to be supplied and charged for, having regard to:
  - the technology that is in use or available;
  - whether the costs that would be involved in supplying, and charging for, the services are 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 service, including the ability of the supplier or suppliers to exploit economies of scale and scope; and

---

<sup>9</sup> *Trade Practices (Telecommunications) Amendment Act 1997*, Explanatory Memorandum.

- the incentives for investment in the infrastructure by which the services are supplied.

These matters are discussed in turn below.

### ***The technical feasibility of supplying and charging for particular services***

This incorporates a number of elements, including the technology that is in use or available, the costs of supplying, and charging for, the services and the effects on the operation of telecommunications networks.

In many cases, the technical feasibility of supplying and charging for particular services given the current state of technology may be clear, particularly where there is a history of providing access. The question will be more difficult where there is no prior access, or where conditions have changed. Experience in other jurisdictions, taking account of relevant differences in technology or network configuration, will be helpful. Generally the onus will be on the potential access provider to demonstrate that supply is not technically feasible.

The costs of supplying and charging for the services, and potential spillover costs in terms of network integrity will also be considered by the Commission. In identifying costs involved in supplying and charging for a service, however, the Commission only needs to consider the direct costs.

### ***The legitimate commercial interests of the supplier or suppliers, including the ability of the supplier to exploit economies of scale and scope***

A supplier's legitimate commercial interests encompass its obligations to the owners of the firm, including the need to recover the cost of providing services and to earn a commercial return on the investment in infrastructure. The Commission will also consider the need for appropriate incentives for the access provider to maintain, improve and invest in the efficient provision of the service.

A significant issue relates to whether or not capacity should be made available to an access seeker. Where there is spare capacity within the network, not assigned to current or planned services, allocative efficiency would be promoted by obliging the owner to release capacity for competitors.

Section 152AB(6)(b) also requires the Commission to have regard to whether the access arrangement may affect the owner's ability to realise economies of scale or scope. Economies of scale arise from a production process in which the average (or per unit) cost of production decreases as the firm's output increases. Economies of scope arise from a production process in which it is less costly in total for one firm to produce two (or more) products than it is for two (or more) firms to each separately produce each of the products.

Potential effects from access on economies of scope are likely to be greater than on economies of scale. A limit in the capacity available to the owner may constrain the number of services that the owner is able to provide using the infrastructure and thus prevent the realisation of economies of scope associated with the production of multiple services. In contrast, economies of scale may simply result from the use of the capacity of the network and be able to be realised regardless of whether that capacity is being used by the owner or by other carriers and service providers. Nonetheless, the Commission will assess the effects of

the supplier's ability to exploit both economies of scale and scope on a case-by-case basis.

***The impact on incentives for investment in infrastructure***

Firms should have the incentive to invest efficiently in infrastructure. Various aspects of efficient investment have been discussed already. It is also important to note that while access regulation may have the potential to diminish incentives for some businesses to invest in infrastructure, it also can ensure that investment is efficient and can reduce the barriers to entry for other (competing) businesses, or barriers to expansion by competing businesses.

There is also a need to consider the effects of any expected disincentive to investment with any anticipated increases in competition to determine the overall effect on the LTIE. The Commission will be careful to ensure that services are not declared where there is a risk that incentives to invest may be dampened, such that there is little subsequent benefit to end-users from the access arrangements.

## 4. Transmission Services

### 4.1 Generic service description

Transmission capacity is a generic service that can be used for the carriage of voice, data or other communications using wide-band or broadband carriage. Carriage service providers can use transmission capacity to set up their own network for aggregated voice or data channels, or for integrated data traffic (such as voice, video, and data).

As the Commission noted in the Deeming Statement, pursuant to s. 39 of the Telecommunications (*Transitional Provisions and Consequential Amendments*) Act 1997:

‘Transmission is a service for the supply by an access provider of transmission capacity to the access seeker pursuant to a range of different requirements including transmission links to the access provider’s network, transmission links within the access seeker’s network and transmission links between an access seeker’s point of presence and the access seeker’s customer premises ... There are a number of types of transmission capacity, which have differing degrees of contestability. These are:

- tail-end transmission;
- inter-exchange local transmission;
- intercapital transmission; and
- other transmission.

From this characterisation, it should be apparent that the “end-to-end” provision of transmission capacity – that is, provision of transmission capacity between two sites being customer locations – may be broken down into the composite components of:

- a ‘tail-end’ from each site to the nearest local exchange;
- the provision of either inter-exchange transmission, inter-call charge area transmission or a combination of the two (dependent on whether the relevant exchange closest to the customer is the exchange from which inter-call charge traffic is routed on the access provider’s network); and
- functionality contributed by the access seeker (such as, switching or traffic management).

The current transmission capacity declared service does not result in the declaration of this end-to-end service. Rather the current declaration requires access providers to offer to access seekers the constituent service as an input to the provision of retail services, or who require transmission capacity to provide underlying network functionality (for example, transmission between points of presence on an access seeker’s network) with that constituent service.

The current service description for bandwidth capacity is 2Mbps. Currently, those wishing to use bandwidth of a capacity greater than 2Mbps, may combine groupings of the declared capacity of 2Mbps. For example, 17 x 2 Mbps would provide the access seeker with a 34 Mbps service.

Alternatively, access seekers may obtain a single higher bandwidth feed of, for example, 34 Mbps from an access provider. In this case, only a single 34Mbps port would be required. From an access provider's perspective, less multiplexing is required, as the bandwidth does not have to be broken

## **4.2 Declared Transmission service**

The declared transmission capacity service currently includes tail-end transmission, inter-exchange local transmission and other transmission.

Tail-end transmission refers to transmission between a point at a customer location and some point on the access seeker's network (that is, a point of interconnection). For example, in the case of a customer whose premises are located near an access provider's local exchange where there is a transmission point of interconnection, the transmission of traffic from that customer premise to the access provider's local exchange, and hence to the transmission point of interconnection, would constitute tail-end transmission.

Inter-exchange local transmission refers to transmission between points of interconnection located at or virtually co-located with an access provider's local exchange, both of which are within a single call charge area. In functional terms, these transmission links, together with switching and network management functions, constitute the inter-exchange network, which carries traffic within a call charge area, but where the transmission points are not linked to the same local exchange.

Other transmission refer to transmission between transmission point of interconnections, which are located in different call charge areas – except for those between capital cities. "Other" refers to transmission to or from a transmission point of interconnection not being a "capital" site.

The current service description for the transmission capacity declaration can be found at Appendix 1.

## **4.3 Non-declared transmission service**

The non-declared transmission capacity service currently includes intercapital transmission, or transmission between TPOIs which are located in different capital cities. "Intercapital" in this sense refers to transmission between the sites specified in the service description which are Brisbane, Sydney, Canberra, Melbourne, Adelaide and Perth.

## **4.4 Monitoring Program**

As noted in Section 1.1, when the Commission first varied the declaration of the transmission capacity service to include intercapital routes except the Melbourne – Canberra – Sydney routes, it established a monitoring program to assess aspects of market structure and market conduct on both the declared and non-declared intercapital routes. The objectives of the

monitoring program were to:

1. monitor whether the expected benefits from new entry and maturation of the market did, in fact, materialise; and
2. obtain information that would assist the Commission to decide whether to review the declaration decision if the structure of the market and the conduct of market participants changed.

The Monitoring program began in March 1999 and initially involved the Commission collecting six-monthly information from Telstra and Optus. This information included data on:

- revenue;
- price;
- capacity utilisation; and
- customer numbers.

In 2001, following a public inquiry into the intercapital elements of the service declaration, the Commission decided to vary the declaration description to exempt transmission on all intercapital routes. In addition, the Commission extended the monitoring program to monitor whether competition developed as expected on the non-declared intercapital routes by requesting that other providers of a wholesale intercapital transmission service, provide data to the Commission.<sup>10</sup> These providers included:

- Macrocom
- SPI Powernet (formerly known as GPU Powernet);
- Transgrid;
- Soul Pattinson Telecommunications;
- IPI Australia; and
- Powertel.

The first report concluded that competition appeared to be generally healthy on most routes, with the possible exception of the Melbourne-Adelaide and Adelaide-Perth. The Commission noted that there appeared to have been moderate price decreases on the Sydney-Melbourne, Sydney-Brisbane, Sydney-Canberra and Melbourne-Canberra routes.<sup>11</sup>

In preparing this report however, the Commission observed that the information collected only provided a partial view of movements in the market and did not provide sufficient scope for a full assessment of competition to be undertaken. In particular, there were some

---

<sup>10</sup> In addition, the Commission considered that the monitoring program would provide important information for comparison purposes with the declared routes.

<sup>11</sup> The first report was based on data received over two reporting periods; the six months ended 30 June 2001 and the six months ended 31 December 2001.

concerns about the usefulness of the price data collected (list prices and lowest negotiated prices) for accurately identifying price changes over time. Further inquiries by the Commission suggested that the “list price” is generally considered merely a starting point for negotiating a lower price while the “lowest negotiated price” can be a misleading measure of the price actually paid in the market if one or a small number of customers pay a much lower price than other customers for a given service.

To rectify this problem, for subsequent reports, the Commission requested that operators provide annual capacity information, in particular, data on the number of links of each bandwidth on each route. Links data can be combined with revenue data to calculate the average revenue earned per link, or an “average price”.

Subsequent reports have indicated that average prices appear to have generally declined on most routes over the course of the monitoring program. Notably, until the latest monitoring report, Telstra’s average prices per link appeared to have fallen significantly on many routes where it offers a wholesale intercapital transmission service. The latest monitoring report however suggests that the growth in competition seen since the monitoring program began has begun to plateau on high traffic routes, with average prices per link increasing on both low traffic routes and across the board for 140 – 155 Mbps bandwidth.

Despite this analysis, the Commission recognises that although the average price is considered the most accurate reflection of the price paid in intercapital transmission markets, there are limitations with using this measure to assess competition. For example, it does not take into account that some of the links may not have been active for the full reporting period and therefore the calculated average price may be distorted, particularly on routes where the number of links is small.

In addition, average prices often vary significantly between carriers. Further inquiries by the Commission have suggested that these variances may be attributable to two particular factors. Firstly, contracts for intercapital transmission tend to be of a long-term nature which may not be readily changed during contract periods. Secondly, the negotiated prices may take into account the anticipated data transmission volumes of each customer. For example, a carrier may be able to offer a lower price per link if its customers are transmitting very high volumes of data.



## **5. Main matters submissions should address**

In reviewing the existing declaration for transmission service capacity, the Commission must decide whether to maintain, vary or revoke this service declaration having regard to the legislative criteria outlined in section 152AB of the Act (discussed in Section 3).

Submissions should, therefore, address the legislative criteria, where possible, to assist the Commission.

Outlined below are more specific issues that the Commission considers may be pertinent to a review of the existing service declaration, in order to assist it to determine what outcome is in the LTIE.

### **5.1 Market definition**

Identifying markets relevant to transmission services will allow the Commission to meaningfully analyse the effectiveness of competition and the likely effect of maintaining, varying or revoking the existing service declaration. The markets identified may be for declared transmission, non-declared transmission, or any relevant downstream markets.

The Act directs the Commission's attention to the markets in which competition may be promoted. In most cases, this is likely to be the markets for downstream services rather than the market in which the eligible service is supplied (where these markets are separate). That said, the Act does not prohibit the Commission considering the markets in which the service is supplied where this will assist in examining the impact of maintaining, varying or revoking the existing service declaration on competition in the relevant markets.

The Commission's focus in its 1998 inquiry report was on the impact of declaring the wholesale transmission services on the downstream market, as well as on the wholesale market. The Commission considered that competition at the wholesale level would affect a number of downstream markets, including long distance and international call services, data related services and IP-based services.

The process of market definition involves determining the market boundaries of transmission or any downstream markets, which can be described in product, geographic and functional terms. A discussion of these elements can be found in the Commission's *Merger guidelines*, June 1999.

In relation to determining the market boundaries on a geographic basis, the Commission stated in its 1998 inquiry report that it considered the geographic markets for transmission could include:

- inter-capital;
- regional to capital;
- intra-regional;
- metropolitan; and

- CBD.<sup>12</sup>

Notably, in relation to intercapital transmission, the Commission re-affirmed this view in its 2001 inquiry report, when it stated that:

The Commission does not believe there is a national market for the intercapital transmission capacity service. Rather, based on submissions to the inquiry, each intercapital route is a separate geographic market with differing characteristics. The relevant downstream market for intercapital transmission capacity includes fixed line long-distance and international call services, mobile and data-related services, and IP-based services.<sup>13</sup>

The Commission's preliminary view is that each intercapital route is still a separate geographic market for the purposes of the review. In relation to the declared transmission routes, the Commission maintains the view that the geographic markets for transmission could include regional-capital, intra-regional, metropolitan and the CBD. Submissions are encouraged to consider the issue of market definition, as it relates to all elements of the transmission capacity service.

That said, the use of market definition in declaration inquiries is not intended to provide all purpose definitions that may be applicable to other aspects of the Commission's work, such as an investigation of a potential breach of the conduct provisions of Part IV and Part XIC of the Act.

***Questions to assist those preparing submissions:***

- The Commission's view in the previous inquiry was that national long distance call and international call services, data related services and IP-based services are the relevant downstream markets for transmission capacity. Are these still the relevant downstream markets for which transmission constitute an input?
- What is the extent to which downstream services are concentrated on certain transmission routes?
- To what extent do different transmission routes constitute different markets?

## **5.2 Technologies used to provide transmission services**

The Commission is interested in views on which technologies are substitutes for the provision of transmission services.

The Commission's view in the 1998 inquiry report (and Telstra's and Optus's submissions to the monitoring program) was that substitutes to fibre optic cables for intercapital transmission include:

---

<sup>12</sup> ACCC, *Competition in data markets – Inquiry Report*, November 1998, p. 33.

<sup>13</sup> ACCC, *Domestic Transmission Capacity Service: A final report examining the possible variation of the service declaration for the domestic transmission capacity service*, May 200.

- satellite;
- electricity utilities infrastructure;
- digital microwave; and
- submarine cables.

Whether these other technologies are substitutes for fibre optic in the provision of transmission will depend upon the relative cost and performance of these alternatives. In this regard:

- submissions by access seekers to the 1998 public inquiry indicated that substitutes to fibre optic, such as microwave or satellite, are not viable because of limited application or cost;<sup>14</sup> and
- in its submission to the monitoring program in 1999, Macrocom submitted that fibre optic and microwave are the only cost effective technologies. In doing so, it acknowledged that satellite and undersea fibre cable are alternatives to fibre optic cable, but they are considered to be less cost effective.

The National Bandwidth Inquiry outlined the key advantage and disadvantages of the various technologies, and how the technologies are utilised. It found that:

- microwave is used for transmission, but to a lesser extent than fibre optic and only in selected regional and rural areas;<sup>15</sup>
- satellite technology is more cost effective when used mainly as a broadcast medium or in remote areas;<sup>16</sup>
- the economic viability of satellite technology for intercapital transmission is only marginal because its capacity is small relative to fibre optic cables;<sup>17</sup> and
- a disadvantage of using undersea fibre cables is that it is not cost effective for capacity to be increased. For this reason, capacity of undersea cables are determined at the time it is installed and remain at this capacity level for its working life.<sup>18</sup>

***Questions to assist those preparing submissions:***

- Have the alternative technologies to fibre optic cable become more or less viable in the provision of transmission capacity since the previous inquiry? Are they likely to increase or decrease in importance in the foreseeable future?

---

<sup>14</sup> ACCC, *Competition in data markets – Inquiry Report*, November 1998, p.32-33.

<sup>15</sup> *Ibid*, p.50.

<sup>16</sup> *Ibid*, p.51.

<sup>17</sup> *Ibid*, p.51.

<sup>18</sup> *Ibid*, p.64.

- Are certain types of technology more viable on certain intercapital routes?
- Are certain types of technologies more viable on certain non-intercapital routes?
- Are there other technologies that may become available in the foreseeable future that are viable technologies to provide a wholesale transmission service?

### **5.3 Market Structure**

Market structure is an important determinant of a competitive market. The Commission is particularly concerned to examine whether the market structure has changed with respect to both declared and non-declared transmission, since the original service declaration, and the subsequent variations. Both current and future indications of market structure are important. The Commission is interested, therefore, not only in the current number of participants in transmission markets, but in whether this number is likely to change via new market entry or existing players exiting the market.

The size of investment by new and existing players is also important to indicate the relative importance of market participants. Having said that, a relatively small number of market participants in a particular market may be efficient due to economies of scale or scope. In these circumstances, the Commission will need to consider whether maintaining, varying or revoking the existing transmission service declaration promotes the efficient utilisation of that infrastructure.

#### **5.3.1 Market entry**

The 2001 inquiry report, which focused on the impact of varying the service declaration on included intercapital transmission routes noted that new entry on eastern seaboard routes had occurred since 1998, and that new entry was planned on a number of other intercapital routes, including Melbourne-Adelaide and Adelaide-Perth. These developments were a primary reason for the Commission's decision to vary the transmission capacity service declaration to exclude the intercapital routes included in the declaration in 1998.

For the present review, the Commission notes that Optus and Telstra still appear to be the major suppliers of transmission services. Further, the Commission notes that although there has been entry in wholesale intercapital transmission markets in recent years there are some uncertainties about the sustainability of competition in these markets.

While evidence of market entry and new investment are important indicators of increased competition, the Commission is mindful that the magnitude of infrastructure investment in transmission infrastructure may be relatively large, due to economies of scale. This will mean that it could be efficient for only a relatively low number of access providers to enter a particular transmission market. In this sense, evidence of new entry does not necessarily equate to the market entry being efficient.

That said, it is possible that efficient market entry would have occurred but for existing barriers to entry. Therefore, in reviewing the transmission service declaration the Commission will consider whether barriers to entry (or expansion) exist in transmission

markets and any impact these may have on competition.

Where a market is characterised by low barriers to entry, the behaviour of incumbent firms may be constrained by the threat of potential competition thereby producing behaviour that is consistent with competitive market outcomes. However, significant barriers to the entry of new suppliers to the market and high concentration levels may indicate that the threat of entry is unlikely to constrain the behaviour of incumbent firms. In this situation, actual entry may be necessary to ensure effective competition.

One barrier to entry may be the significant level of excess capacity potentially held by existing access providers in their infrastructure. This is discussed in more detail in section 5.3.2.

***Questions to assist those preparing submissions:***

- Are there likely to be new entrants in transmission markets (i.e. both declared and non-declared) in the foreseeable future?
- Would the exit of any carriers from transmission markets have ramifications for effective competition in particular intercapital transmission markets?
- Do barriers to entry exist in transmission markets? If so, what are they? Are there barriers to expanding in any intercapital transmission market? If so, what are they?
- Taking into account the scope of the existing declaration, does the Commission need to give consideration to removing any elements of wholesale transmission that are currently declared?
- Does the Commission need to give consideration to declaring elements of wholesale transmission that are currently non-declared?

### **5.3.2 Excess capacity**

The existence of significant excess capacity may provide a barrier to entry for new entrants, who may be hesitant to enter a market where the incumbents have the potential to engage in vigorous competition.

The Commission has been able to gain some limited information on excess capacity by way of the utilisation data provided under the monitoring program.

In previous submissions, carriers have argued that spare capacity is not a relevant factor when assessing the level of competition in transmission markets. Indeed, it has been suggested that taking into account the amount of capacity at any given time could be misleading. The variability and dynamic nature of transmission capacity utilisation have been cited as reasons why information on capacity would not be useful in this regard. Carriers have claimed that multiplexing technology and the possibility of lighting up pairs of fibres can expand capacity quickly. Telstra had also argued that unused capacity should not be regarded as excess capacity because it was intended for future use, while Optus has previously maintained that

giving away spare capacity at a lower cost would lead to an unacceptably low return on investment. Both carriers have stated that spare capacity is necessary to meet demand from their own customers.

In the 1998 inquiry, the Commission was not able to form a definitive view on the precise extent of excess capacity in the transmission networks due to the lack of detailed and verifiable information.

When the service declaration was varied in 2001 to exclude intercapital routes, the Commission noted that it had closely monitored the behaviour of the incumbent transmission carriers, Telstra and Optus, in response to market entry by Macrcom, PowerTel, Amcom and Soul Pattinson Telecommunications. At this time, the Commission concluded that there was no evidence before the Commission to suggest that the incumbent's had used spare capacity to deter entry, which tended to suggest that the high level of potential capacity is not necessarily a significant barrier to entry.<sup>19</sup>

***Questions to assist those preparing submissions:***

- Is there excess capacity in the incumbent and new entrants' networks? If so, is the level of excess capacity relevant for determining the level of competition in the market?
- On what routes is there considered to be a high degree of excess capacity?

## **5.4 Price movements**

In the Commission's 1998 inquiry, access seekers argued that the introduction of a second supplier of intercapital transmission capacity had little impact on price. The Commission's view was that price competition between access providers was limited at that time to main wholesale customers and corporates, as evidenced by the limited differences in the price for supply of wholesale transmission capacity to the majority of the access seekers.

Based on the pricing information obtained from the Commission's monitoring program, it appears that prices on many intercapital routes have fallen over the course of the monitoring program. Specifically, average prices per link have generally followed a downward trend over most periods, notably, with the exception of the most recent reporting period (12 months ending 31 December 2002). Data from the latest period indicated that on some routes, the pattern of substantially falling prices was beginning to plateau, whereas on others prices had actually risen.

Price fluctuations are undoubtedly attributable to a number of factors, including changes in competition (including the effect of regulation), demand, the costs of building or expanding the necessary infrastructure, and shifts in relative bargaining power.

---

<sup>19</sup> ACCC, *Domestic Transmission Capacity Service: A final report examining the possible variation of the service declaration for the domestic transmission capacity service*, May 2001, p.23.

***Questions to assist those preparing submissions:***

- As noted above, the results of the monitoring program suggest that the price of intercapital transmission capacity has generally fallen over the course of the monitoring program. Has that been your experience as an access provider/seeker? What is the reason this has/has not occurred?
- Has the price of non-intercapital transmission decreased since the entire service declaration was last reviewed? What is the reason this has/has not occurred?
- How do wholesale prices for intercapital transmission in Australia compare to those in other countries? How do wholesale prices for other types of transmission in Australia compare to those in other countries?

## **5.5 Profit margins**

The Commission generally expects that access providers' margins should reflect underlying costs, including a risk-adjusted commercial return. The Commission notes that since it conducted the two previous inquiries into the transmission capacity service declaration, there have been a number of changes in the relevant markets that may have affected the margins of transmission providers.

***Questions to assist those preparing submissions:***

- Do wholesale prices for intercapital transmission reflect underlying costs? If not, on which intercapital routes is this the case?
- Do wholesale prices for non-intercapital transmission reflect underlying costs? If not, on which routes is this the case?

## **5.6 Impact on efficient investment in infrastructure**

The potential for declaration to discourage efficient investment in infrastructure is a key concern of the Commission.

In submissions to the Commission's previous inquiries, existing suppliers of transmission capacity stated that their decision to invest is influenced by the guarantee of high returns which is required if they are to recover the high cost of investment in infrastructure. This concern stems from the uncertainty in relation to price that might result from declaration. In the past, suppliers of transmission capacity, including potential new entrants, have been worried about the impact of the Commission's arbitration powers after declaration on their expected returns. In particular, new and potential entrants were concerned that the

Commission may force transmission prices down if requested to arbitrate a transmission dispute.<sup>20</sup>

In the 1998 inquiry, Telstra submitted that it might not have the incentive to invest in infrastructure because of the potential for access seekers to "piggy back" off its investment at regulated prices. Telstra submitted that declaration would lead to under-investment in both current and new technologies.<sup>21</sup>

Declaration may also impact on investment in the upstream market by service providers. The Commission's view was that economically efficient investment in downstream markets could be achieved through market processes in routes where new entry will occur or is already occurring, or through declaration where the probability of entry is low in the short to medium term. Declaration would ensure that service providers are not forced into a decision to construct their own network facilities by a lack of competition in the upstream market.

***Questions to assist those preparing submissions:***

- Would maintaining, varying or revoking the declaration have an effect on the investment decisions of new entrants or existing suppliers in the transmission market?
- How would maintaining, varying or revoking the declaration affect decisions to invest in downstream markets?

## **5.7 Monitoring Program**

As previously noted, the Commission established a monitoring program in 1999 to monitor whether competition developed as expected on particular intercapital transmission routes. This monitoring program was further extended after the 2001 inquiry report to capture other significant operators in the wholesale transmission market. The Commission is now seeking views on the effectiveness of its monitoring program.

***Questions to assist those preparing submissions:***

- Should the monitoring program be extended or curtailed in any way?
- Would publication of data collected under the monitoring program aid competition in the relevant markets?

---

<sup>20</sup> ACCC, *Competition in data markets – Inquiry Report*, November 1998, 69.

<sup>21</sup> *Ibid*, p.45.



## **6. Developing Pricing Principles for Declared Services**

### **6.1 Legislative Requirement**

Under Section 151AQA of the Act (introduced in 2002), the Commission must, by writing, determine principles relating to the price of access to a declared service. The determination may also contain price-related terms and conditions relating to access to the declared service. In terms of timing, the Commission must make such a determination at the same time as, or as soon as practicable after:

- the Commission declares a service to be a declared service; and
- if the Commission varies a declared service – that variation.

Before making such a determination the Commission must publish a draft of the determination and invite people to make submissions to the Commission on the draft determination. Subsequently, after considering the submissions received, the Commission must publish the determination in such manner as it considers appropriate.

If the Commission is required to arbitrate an access dispute under Division 8 in relation to the declared service, the Commission must have regard to the determination.

### **6.2 Criteria for developing pricing principles**

The Commission's role in assessing price terms and conditions generally revolves around assessing undertakings and arbitrating disputes. In these circumstances, the Act requires that the terms and conditions of access are reasonable.<sup>22</sup> In determining whether terms and conditions are reasonable, regard must be had to the following matters:

- whether the terms and conditions promote the LTIE of carriage services or of services supplied by means of carriage services, which in turn are achieved by:
  - promoting competition in markets for telecommunications 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;<sup>23</sup>

---

<sup>22</sup> The Commission must also ensure that the terms and conditions in undertakings and any arbitration determination are consistent with any Ministerial pricing determination in place. See section 152CH of the Act.

<sup>23</sup> Section 152AB(2) of the Act.

- the legitimate business interests of the carrier or carriage service provider concerned, and the carrier's or provider's investment in facilities used to supply the declared service concerned;
- the interests of persons who have rights to use the declared service concerned;
- the direct costs of providing access to the declared service concerned;
- the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility; and
- the economically efficient operation of a carriage service, a telecommunications network or a facility.<sup>24</sup>

This does not, by implication, limit the matters to which regard may be had.<sup>25</sup>

The Commission determined in its July 1997 access pricing principles paper that pricing based on total service long-run incremental cost (TSLRIC) to recover the efficient costs of a 'forward-looking' network would satisfy the broad criteria, detailed above.<sup>26</sup> However the Commission considers that these broad access pricing criteria also have to be interpreted with respect to the peculiarities of different types of access services.

To date, the Commission has not specified principles it would apply for the transmission capacity service. As such, the Commission is now seeking views from interested parties on this issue.

***Questions to assist those preparing submissions:***

- What are considered to be the appropriate pricing principles for the transmission capacity service?

---

<sup>24</sup> Section 152AH(1) of the Act.

<sup>25</sup> Section 152AH(2) of the Act.

<sup>26</sup> ACCC, *Access Pricing Principles – Telecommunications – a guide*, 1997.

## Appendix 1: Current transmission capacity service description

The Domestic Transmission Capacity Service is a service for the carriage of certain communications from one transmission point to another transmission point via network interfaces at a designated rate on a permanent basis by means of guided and/or unguided electromagnetic energy, except communications between:

- a) one customer transmission point and another customer transmission point; and
- b) a transmission point in an exempt capital city and a transmission point in another exempt capital city; and
- c) one access seeker network location and another access seeker network location.

### Definitions

Where words or phrases used in this Annexure are defined in the *Trade Practices Act 1974* or the *Telecommunications Act 1997*, they have the meaning as given in the relevant Act.

In this appendix:

an ***access seeker network location*** is a point in a network operated by a service provider that is not a point of interconnection or a customer transmission point; and

an ***exempt capital city*** means Adelaide, Brisbane, Canberra, Melbourne, Perth or Sydney; and

a ***customer transmission point*** is a point located at customer equipment at a service provider's customer's premises in Australia (for the avoidance of doubt, a customer in this context may be another service provider); and

a ***designated rate*** is a transmission rate of 2.048 Megabits per second, 4.096 Megabits per second, 6.144 Megabits per second, 8.192 Megabits per second, 34 to 45 Megabits per second, 140/155 Megabits per second (or higher orders agreed between a carrier or carriage service provider and another service provider); and

a ***point of interconnection*** is a physical point of connection in Australia agreed between a network operated by a carrier or a carriage service provider and another network operated by a service provider; and

a ***transmission point*** is any of the following agreed between a carrier or carriage service provider and another service provider:

- a) a point of interconnection;
- b) a customer transmission point;
- c) an access seeker network location.