

AUSTRALIAN RAIL TRACK CORPORATION LTD

2007 ARTC INTERSTATE ACCESS  
UNDERTAKING

EXPLANATORY GUIDE



JUNE 2007

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# TABLE OF CONTENTS

<b>1. Introduction</b>	<b>3</b>
<b>2. ARTC's Role &amp; Objectives</b>	<b>7</b>
<b>3. ARTC's 2002 Access Undertaking</b>	<b>9</b>
3.1 Performance of the Network	10
3.2 Changes to ARTC's business and operating environment over the last 5 years	12
3.3 Broad elements of the 2002 ARTC Access Undertaking	13
<b>4. ARTC's Lease of certain parts of the NSW Rail Network</b>	<b>18</b>
4.1 Existing Regulatory Arrangements in NSW	19
4.2 The NSW Rail Access Undertaking	20
<b>5. 2007 ARTC Interstate Access Undertaking</b>	<b>22</b>
5.1 ARTC's approach	22
5.2 Industry Consultation	23
5.2 Summary of key variations from ARTC's 2002 Access Undertaking	24
<b>Attachments</b>	
A. Revenue Limits	35
B. Excess Network Occupancy component of Charges (ENOC)	54
C. ARTC Review of Indicative Access Charges	56
D. Mechanism for periodic variation of the Indicative Access Charge	61
E. Indicative Access Agreement – Indemnity and Insurance	62
F. Capital Expenditure	63

# 1. INTRODUCTION

This Explanatory Guide is presented as a companion to the 2007 ARTC Interstate Access Undertaking submitted by Australian Rail Track Corporation Ltd. ('ARTC') to the Australian Competition and Consumer Commission ('ACCC') to expand on the content of the undertaking and provide context where appropriate to aid understanding of the issues concerned. The undertaking stipulates the processes, responsibilities and obligations of ARTC and an applicant, seeking access to the ARTC network.

Once accepted by the ACCC the terms of the undertaking will be binding and enforceable by law on ARTC. It should be noted however, that the undertaking does not diminish existing contractual rights nor preclude parties agreeing to principles outside the scope of the undertaking.

This Guide does not comprise part of the undertaking nor does it seek to repeat the contents thereof, but rather to aid understanding through provision of supplementary information and clarification. To the extent there may be any apparent inconsistency between this Guide and the Undertaking, the Undertaking shall prevail. ARTC may, during the course of the duration of the term of the Undertaking update this Guide, without reference to the ACCC, if feedback suggests it is warranted. Terms used in this Guide are as per Undertaking definitions unless otherwise obvious from the context.

The 2007 ARTC Interstate Access Undertaking is applicable to a large part of the national interstate rail network that is currently owned or operated under lease by ARTC.

The ACCC has previously accepted an access undertaking submitted by ARTC ("2002 ARTC Access Undertaking") in relation to the rail network owned or operated under lease by ARTC outside of New South Wales in May 2002. This undertaking had a term of 5 years and expired on 31 May 2007.

In September 2004, ARTC commenced a 60 year lease of certain parts of the New South Wales rail network, including the interstate rail network in that state proposed to be covered by this undertaking. The NSW rail network was covered by the NSW Rail Access Regime<sup>1</sup> until September 2004, which was replaced at the time of commencement of ARTC's lease by the NSW Rail Access Undertaking<sup>2</sup>. Under the terms of ARTC's lease, the provisions of the NSW Rail Access Undertaking would be applicable to the network leased by ARTC until an undertaking submitted by ARTC to the ACCC is approved by the ACCC.

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<sup>1</sup> [http://www.artc.com.au/docs/nsw/network\\_access/info\\_pack/regulatory\\_framework/NSW\\_Rail\\_Access\\_Regime.pdf](http://www.artc.com.au/docs/nsw/network_access/info_pack/regulatory_framework/NSW_Rail_Access_Regime.pdf)

<sup>2</sup> [http://www.artc.com.au/docs/nsw/network\\_access/info\\_pack/regulatory\\_framework/nsw\\_rail\\_access\\_undertaking.pdf](http://www.artc.com.au/docs/nsw/network_access/info_pack/regulatory_framework/nsw_rail_access_undertaking.pdf)

A key objective of ARTC's lease in NSW has been to deliver improved performance and capacity of the rail network between Melbourne and Brisbane (via Sydney) ("North-South rail network") through strategic investment in that network to enable the performance of the network to meet market requirements in terms of reliability, transit time, availability and yield, as well as through more holistic management of that network, including delivering greater consistency in access regulation to the interstate rail network more broadly. This undertaking forms a key part of ARTC's strategy to deliver on this objective.

A substantial majority of access revenue derived by ARTC on the interstate network is sourced in competitive markets, where strong intermodal competition, primarily from road constrains both freight and access pricing in competing rail services. Similarly, for rail to effectively compete against road, rail must offer a level of service that is competitive and sustainable.

Given this, ARTC access pricing in these key markets is constrained to levels significantly less than full economic cost by intermodal competition. Pricing at above these levels in order to each greater recovery of full economic cost is likely to adversely effect network utilisation. In these key transport markets ARTC considers that it does not have a substantial degree of market power.

The competitive nature of these key markets also necessitates various elements of the industry to closely coordinate activities along supply chains. As ARTC does not control the entirety of the below rail service provision in many interstate markets, ARTC continues to coordinate its activities (such as train planning and management) with other track managers, both on the interstate network and regional networks. This cooperation and coordination has occurred because of recognition by participants that a coordinated approach is necessary either for rail to compete and sustain itself, or because it is the most efficient or effective method to arrange paths between the track managers.

ARTC recognises that rail performance in competitive markets is not just a function of the performance of the train operator, or the track manager, but is a joint effort, aided by coordination and communication between parties. To this end, ARTC recognises that its activities and those of its customers need to be coordinated to the extent that a multi-user environment will permit in order to achieve and maintain competitive rail performance levels.

ARTC's financial success and sustainability relies heavily on the recovery of long term acceptable returns from investment. ARTC is constrained from simply increasing access pricing in order to recover its cost of investment. ARTC's strategy for long term asset sustainability in its current competitive environment is, through strategic investment in, and management of, its assets to grow rail volumes, and asset utilisation, on the network through contributing to improving rail competitiveness in the longer term. As such, ARTC is bearing substantial market risk in investing in the network. ARTC has a commercial incentive to

mitigate this risk as much as possible through ensuring that its investment strategies are designed to meet market need for infrastructure performance and capacity. In the past, ARTC has sought to consult with its customers, end users and stakeholders in order to establish what the market needs are in this regard, and how best to meet these needs. ARTC's customers and the wider market has been heavily involved in the specification of market requirements in relation to ARTC's past investments in the East-West<sup>3</sup> network, and critically, in the development of its North-South Investment Strategy. During these consultative processes, ARTC has considered it important to establish a balance of outcomes sought by a number of competing interests in the use of the network, so as not to allow its activities to create inefficient competitive outcomes on the network.

ARTC is a vertically separated track manager. As such, the structural incentives normally present in a vertically integrated access environment do not exist on the network managed by ARTC, and subject to the 2007 ARTC Interstate Access Undertaking.

In the next section, ARTC will provide evidence of strong rail performance on the East-West network largely covered by the 2002 ARTC Access Undertaking. Whilst it is accepted that the application of access regulation and the 2002 ARTC Access Undertaking in East-West markets are only one of many reasons for the improvement in rail competitive position, ARTC considers that the application of the 2002 ARTC Access Undertaking has not impeded the development and, as best as possible, preservation of above rail competition and positive competitive outcomes for rail in East-West markets.

With many of the above objectives and circumstances in mind, ARTC has sought, in its development of the 2007 ARTC Interstate Access Undertaking, to:

1. Build upon the provisions of the 2002 ARTC Access Undertaking applicable to ARTC's network at the time, which covered a substantial portion of the East-West rail network. ARTC considers that the 2002 ARTC Access Undertaking was largely a formalised recognition of the approach to access, pricing and operations that had been applied by ARTC for several years prior to 2002, and has been applied since. ARTC sees no compelling reason to substantially adjust the 'formula' for access to the network to that created by the 2002 ARTC Access Undertaking. ARTC is seeking to extend this approach to the North-South interstate network, in order to achieve greater consistency over the bulk of the national interstate rail network as had been outlined to the industry prior to ARTC's take-up of the NSW Lease.
2. Continue to adopt a level of regulatory 'intensity' or 'heavy handedness' that is appropriate in the circumstance of vertically separated network where market power is not substantial. In particular, ARTC does not consider it necessary to regulate activities

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<sup>3</sup> The rail network serving markets between the eastern States, Adelaide and Perth.

that are already effective within the industry, and are driven by commercial incentives of participants in a competitive environment.

3. Recognise specific obligations for ARTC arising from its lease in NSW.
4. Recognise changes in the commercial, competitive and operating characteristics of the markets serviced by the interstate rail network over the last five years.

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## 2. ARTC's ROLE & OBJECTIVES

Australian Rail Track Corporation Ltd is a company under the Corporations Act, whose shares are held by the Commonwealth of Australia.

ARTC commenced operations in 1998 with the following charter:

- Improve performance and efficiency of interstate rail infrastructure
- Increase capacity utilization
- Listen, understand and respond to the market
- Operate on sound commercial principles
- Provide shareholders with a sustainable return on capital invested

ARTC currently has responsibility for the management of around 10,000 route kilometres of standard gauge track, in South Australia, Victoria, NSW and Western Australia. ARTC owns the following rail corridors:

- Adelaide – Wolseley
- Adelaide – Pt Augusta – Kalgoorlie
- Pt Augusta – Whyalla
- Broken Hill – Crystal Brook
- Tarcoola – Alice Springs (long term lease to Asia Pacific Transport, operators of the Alice Springs – Darwin Railway)
- Parts of the Adelaide metropolitan track between Dry Creek and Outer Harbour.

In Victoria, ARTC leases the two mainline interstate standard gauge corridors from the Victorian Government, being:

- Melbourne – Wolseley
- Melbourne – Albury

ARTC also manages access to the connection from the interstate mainline network to the Appleton Dock precinct in Melbourne.

ARTC has recently commenced a 60 year lease of the following parts of the NSW rail network:

- Albury – Macarthur
- Woodville Junction (Newcastle) – Queensland Border
- Cootamundra – Broken Hill
- Parkes – Werris Creek/Ulan

- Hunter Valley rail network (Newcastle ports – Werris Creek/Ulan)

Over these corridors, ARTC is responsible for:

- Selling access to train operators
- Development of new business
- Capital investment
- Operational management
- Management of infrastructure maintenance

The remainder of the interstate network is still controlled by various State Government agencies or private entities, as follows:

- Brisbane – Queensland border (Queensland Rail (QR))
- Kalgoorlie – Perth (WestNet Rail, owned by Babcock and Brown, which has a long term lease arrangement with the West Australian Government)
- Those parts of the interstate network within the Sydney Metropolitan Commuter Network (Macarthur – Chullora – Woodville Junction (Newcastle) (RailCorp))

ARTC also manages, on behalf of the NSW Government, the remainder of the regional rail network in NSW outside of the Sydney Metropolitan Commuter Network.

ARTC is intending to construct a freight route in the Sydney metropolitan area that provides dedicated freight connection between Macarthur and Chullora (Southern Sydney Freight Route (SSFR)) over the next 2 years. Following completion of the SSFR, other dedicated freight lines in the Sydney metropolitan area (including lines between Chullora and Port Botany) will be included in ARTC's leased network.

ARTC has negotiated an agreement with the West Australian Government (assigned to WestNet Rail) that gives ARTC rights to sell access for interstate operations with respect to new agreements or the novation of existing agreements. WestNet Rail controls the maintenance, investment and operations between Kalgoorlie and Perth.



### 3. 2002 ARTC ACCESS UNDERTAKING

ARTC has previously submitted a voluntary access undertaking in accordance with Part IIIA of the Trade Practices Act (1974) (“TPA”) to the ACCC in January 2001, which was approved by the ACCC in May 2002 (“2002 Access Undertaking”). The 2002 Access Undertaking applies to the interstate network controlled by ARTC at the time, and sets out the framework under which access to that network can be negotiated with ARTC in a fair and balanced way. The ACCC indicated that it saw the 2002 Access Undertaking as laying a foundation for the development of a consistent ‘national’ rail access regime in conjunction with other state based jurisdictions. The 2002 Access Undertaking has a term of 5 years and expires in May 2007.

In order to achieve a key objective of increasing utilization of the interstate rail network, ARTC has adopted a strategy of growing the use of rail for the movement of interstate freight in Australia by improving rail’s competitiveness within the broader freight transport logistics framework. Rail’s competitiveness is also a function of the activity of rail transport operators (ARTC’s customers) and the extent to which rail is able to effectively integrate and communicate with other elements of the transport and distribution supply chain within various interstate and international transport markets.

ARTC’s strategy of growing freight volume on rail also underpins ARTC’s approach to pricing as described in the 2002 ARTC Access Undertaking. ARTC has sought to set access pricing at a level that will assist rail to be competitive with road in markets served by the interstate network. With the current level of utilization of ARTC’s network, however, pricing at this level results in the amount of revenue collected by ARTC not being sufficient for the long-term economic sustainability of its network. It is ARTC’s strategy to grow volumes in the long term, such that rail can be competitive and achieve long-term sustainability of its asset.

With regard to the other aims of increasing the extent of above rail competition on its network, ARTC has adopted the principles of efficiency, equity and open-ness in its approach to facilitating access to the network. ARTC believes that the 2002 Access Undertaking largely encompasses these principles.

The 2002 Access Undertaking adopted a hybrid rail access model that incorporated certain aspects of both the traditional ex ante and ex post models for determination of access terms and conditions. The ex ante model contemplates the up-front determination of generic terms and conditions, whilst the ex post model contemplates determination of access terms and conditions in the context of an access dispute on an ex post basis (a negotiate/arbitrate model). The 2002 Access Undertaking sought to provide certainty to users and access seekers by providing for indicative terms and conditions, including pricing and pricing variation, that cover the predominant service on the interstate network, which can also act as a starting point for negotiation for non-standard services, that is underpinned by a dispute resolution

process. ARTC committed that the same pricing would be available to any train operator, regardless of ownership, operates under the substantially the same terms and conditions, and in the same end market as another train operator. To provide further certainty, the 2002 Access Undertaking also provided up-front for publishing of pricing and other information, the extent to which pricing can be differentiated for non-standard services, capacity management processes, and performance reporting.

ARTC sees these principles as providing confidence and encouragement to potential access seekers that they will be able to use the network on an even playing field with other access users and seekers.

### **3.1 Performance of the Network**

The 2002 ARTC Access Undertaking covered ARTC's network at the time, which primarily covered a substantial part of the East-West network. On these corridors, ARTC had greater control over infrastructure performance, and has strategically invested in infrastructure improvements designed to reduce rail transit times and increase service reliability (longer crossing loops, capability for heavier axle load operations) as well as enable more efficient above rail operations (see Figure 1). Operators have been able to improve above rail productivity (running longer heavier trains) which has resulted, in combination with real reductions in access pricing since 1998/99 of around 25% (see Figure 2).

The combined effect of improved reliability and transit times and lower cost of access has, together with the effect of above rail competition on the east-west corridors (including greater above rail efficiency, service levels and product differentiation), enabled rail to increase its share of the land transport market from the eastern states to WA by an average of 15% (from 65% in 1995/96 to over 80% currently (see Figure 3). This has meant a reduction in the use of road by around 350 journeys per week across the country than otherwise might have been the case.

Figure 1

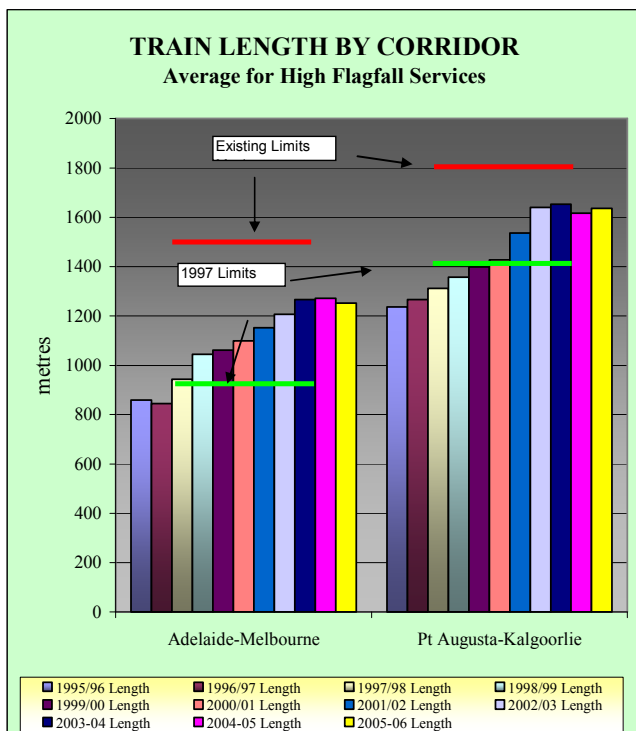
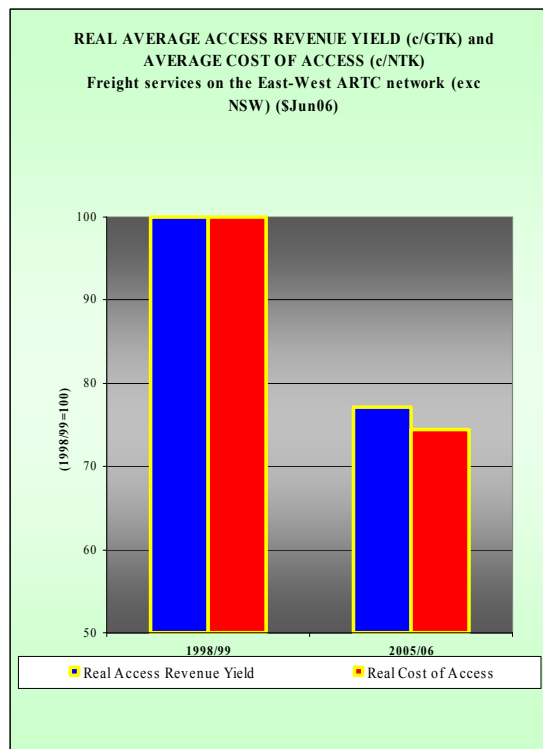


Figure 2



Since the introduction of competition reforms in the rail industry in the mid 1990's that competition for rail freight services has taken hold on most on the east-west interstate network. ARTC considers that this has occurred for a number of reasons including:

- horizontal and vertical structural arrangements on the bulk of this network that promoted above rail competition
- rail natural competitive advantage and the relative economics of intermodal freight transport on this network
- the improvement in quality and capability of the infrastructure that has led to improved rail efficiency and competitiveness.
- infrastructure pricing that rewards rail users for improved operating efficiency

The outcomes of this competition on the east-west interstate have been described above, and have resulted in improved transport outcomes for business and communities utilizing this network.

ARTC considers that the 2002 ARTC Access Undertaking was largely a formalised recognition of the approach to access, pricing and operations that had been applied by

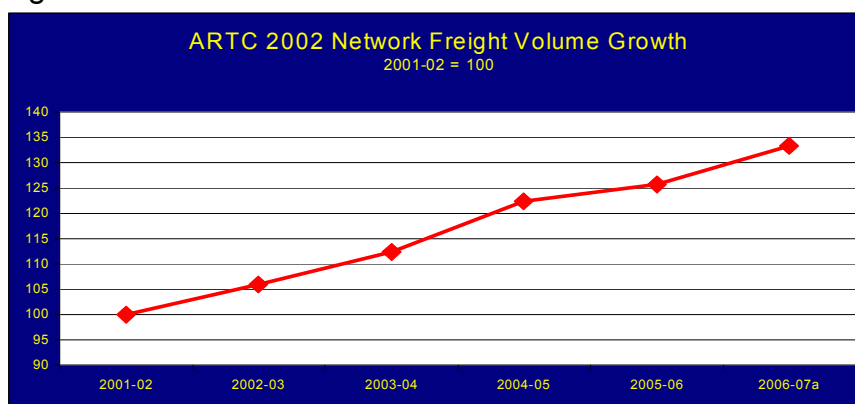
ARTC for several years prior to 2002. ARTC believes that this approach has assisted in delivering the successful outcomes for rail seen on the East-West network. Given this, ARTC sees no compelling reason to substantially adjust the 'formula' for access to the network to that incorporated in the 2002 ARTC Access Undertaking,

### 3.2 Changes to ARTC's business and operating environment over the last 5 years

The approach taken by ARTC in the 2002 ARTC Access Undertaking, and also in the indicative access terms and conditions provided for by the undertaking, was based on the experience and outcomes of negotiations with interstate rail operators over a number of prior years. As such, ARTC considered that much of the undertaking reflected the market for access on ARTC's part of the interstate network that existed in the period leading up to the undertaking, and at the time of commencement of the undertaking. Over the 5 year term of the 2002 ARTC Access Undertaking there have been several changes in ARTC's business and operating environment, which it has considered during development of the 2007 ARTC Interstate in its 2007, as follows:

- Since the commencement of the undertaking, the network to which it has applied has seen substantial volume growth, continuing from that in prior years, as well as a continuation, or at least maintenance, of substantial efficiency improvements made by both above and below rail service providers that, through competition, have manifested in benefits to both the industry, end users, and the wider community. Figure 3 below shows the growth in volume on the relevant ARTC network since 2002.

Figure 3



- Also in the period since commencement of the undertaking, the above rail market, in terms of structure and degree of competition, has altered.

Significantly, operations and assets of the major government owned interstate rail operator (National Rail) and the NSW Government owned above rail freight operator

(FreightCorp) have been combined and privatized. This resulted in a substantial increase in the degree of above rail market concentration, where the vast majority of above rail assets serving the interstate market, including rollingstock and terminals are now controlled by a single entity (Pacific National). Pacific National was initially owned by freight forwarding company Toll Holdings and port operator and forwarder Patrick. Toll Holding has since acquired Patrick subject to it meeting undertakings given to the ACCC to address competition concerns in several markets, including the East-West interstate rail and forwarding markets. To address competition concerns, a Toll proposal to restructure into separate forwarding and infrastructure companies has been accepted by the ACCC subject to further undertakings seeking independence between the companies. Pacific National, together with Toll's previous port holdings, will now be wholly owned by an infrastructure company, Asciano, where its rail operations will now be no longer integrated with forwarding activities.

Other significant changes that have occurred since 2002 include the purchase of rail operators ATN and Freight Australia (operating primarily in Victoria) by Pacific National, and the acquisition by QR of Northern Rivers Railroad (NSW), CRT (NSW/Victoria) and ARG above rail operations in WA, as part of its expansion into interstate and other markets outside Queensland.

As a result of these industry and market changes, there has been a concentration in the above rail markets. ARTC does not consider that this market concentration has resulted in any way from the model adopted by ARTC in its 2002 Access Undertaking.

### **3.3 Broad elements of the 2002 ARTC Access Undertaking**

Broad elements and treatments in the 2002 ARTC Access Undertaking include:

- The Undertaking codifies underlying principles:
  - The majority of ARTC revenue is earned through the transport of interstate freight, in markets which are subject to a substantial degree of competition from other modes of transport
  - ARTC is not vertically integrated. The vast majority of its revenue is derived through providing access to its network for operations by other parties.
  - Charges set by ARTC in the marketplace result in revenues that fall significantly below a level that would allow for the business to earn an

adequate long-term economic rate of return. To mitigate against this, ARTC seeks to grow volumes on the network.

- ARTC has adopted the concepts of equity and transparency as key elements of its pricing policy, in order to stimulate market confidence and growth in the rail industry.

- **Scope and Administration**

- Applies only to the network owned or leased by ARTC. ARTC would submit an undertaking with respect to any other existing track leased by ARTC in the future.
- The undertaking had a term of five years.
- The undertaking does not effect existing agreements.
- ARTC will publish comprehensive information on its website to assist access seekers in the access negotiation process. This includes:
  - Network description
  - Prices
  - Terms and Conditions
  - Network Management Principles
  - Capacity and Usage
  - Performance Indicators

- **Negotiation and Dispute Resolution**

- Both parties to negotiate in good faith.
- Framework includes preliminary meetings & information exchange, access application, indicative access proposal, negotiation to develop and agreement for execution, and dispute resolution procedures.
- Timeframes apply to all steps in the process.
- Confidentiality provisions apply.
- Either party make seek dispute resolution at any time during negotiation.
  - The dispute resolution process:

- follows a negotiate/mediate/arbitrate model
- provides for the ACCC to act as arbitrator
- provides for utilisation of a conflict manager
- has time constraints on all steps
- allows for the publishing of arbitration outcomes
- requires the arbitrator to consider matters consistent with Part IIIA and the CPA.

- **Pricing Principles**

- ARTC pricing must be such that revenue collected on any segment from all users falls between Floor and Ceiling revenue limits.
- The Floor revenue limit is the incremental cost of a segment, being the costs which would have been avoided if the segment were (theoretically) removed. Incremental cost includes segment specific costs and an allocation of non-segment specific costs but excludes depreciation and a return on assets.
- The Ceiling revenue limit is the economic cost of a segment, which includes all segment specific costs, an allocation of non-segment specific costs, depreciation of relevant assets and a return on relevant assets.
- The rate of return is ARTC Weighted Average Cost of Capital. The rate accepted by the ACCC is 10.16% (nominal, pre-tax).
- Assets are valued using the Depreciated Optimised Replacement Cost methodology. Valuations are annually adjusted for CPI and relevant depreciation.
- Charges comprise a variable component (\$/gtkm) and a flagfall component (\$/km).
- Indicative access charges are available for any seeker wishing to operate indicative services (110kph, 21TT a/l, 1500m length east of Adelaide, 1800m west of Adelaide) under the indicative terms and conditions. Intended to provide certainty in pricing.
- Indicative access charges for the indicative service may be varied annually by the greater of 2/3rds CPI and CPI-2%. Intended to provide pricing certainty going forward and result in real ongoing price reduction
- Pricing for other than indicative services will be based on:

- Indicative access charges
  - Service characteristics
  - Commercial impacts on ARTC
  - Logistical impacts on ARTC
  - Cost of any additional capacity required.
- Pricing will not be differentiated based on the identity of the applicant, nor where the service characteristics are alike and the services are operating in the same end market. Intended to deliver equitable pricing.
- **Capacity Management**
    - ARTC will undertake capacity analysis in preparing and indicative access proposal.
    - Where two or more applicants seek mutually exclusive capacity, ARTC will seek to satisfy both requirements. If this is not achievable, access will be given to the applicant agreeing to terms and conditions most favourable to ARTC (normally an NPV test).
    - ARTC has the right to reclaim under-utilised capacity.
    - Capacity may be assigned by one user to another with ARTC's approval.
- **Network Connections and Additional Capacity**
    - ARTC will consent to connection to the network provided certain conditions are met (approvals, standards, will not reduce capacity, costs met by proponent).
    - ARTC will consent to the provision of additional capacity if it is safe, meets standards, is commercially viable to ARTC or the costs are met by the proponent.
    - ARTC's costs could be met by reimbursement as incurred, or through increased charges.
- **Network Transit Management**
    - Objective is to exit trains from the network according to their contracted exit time.

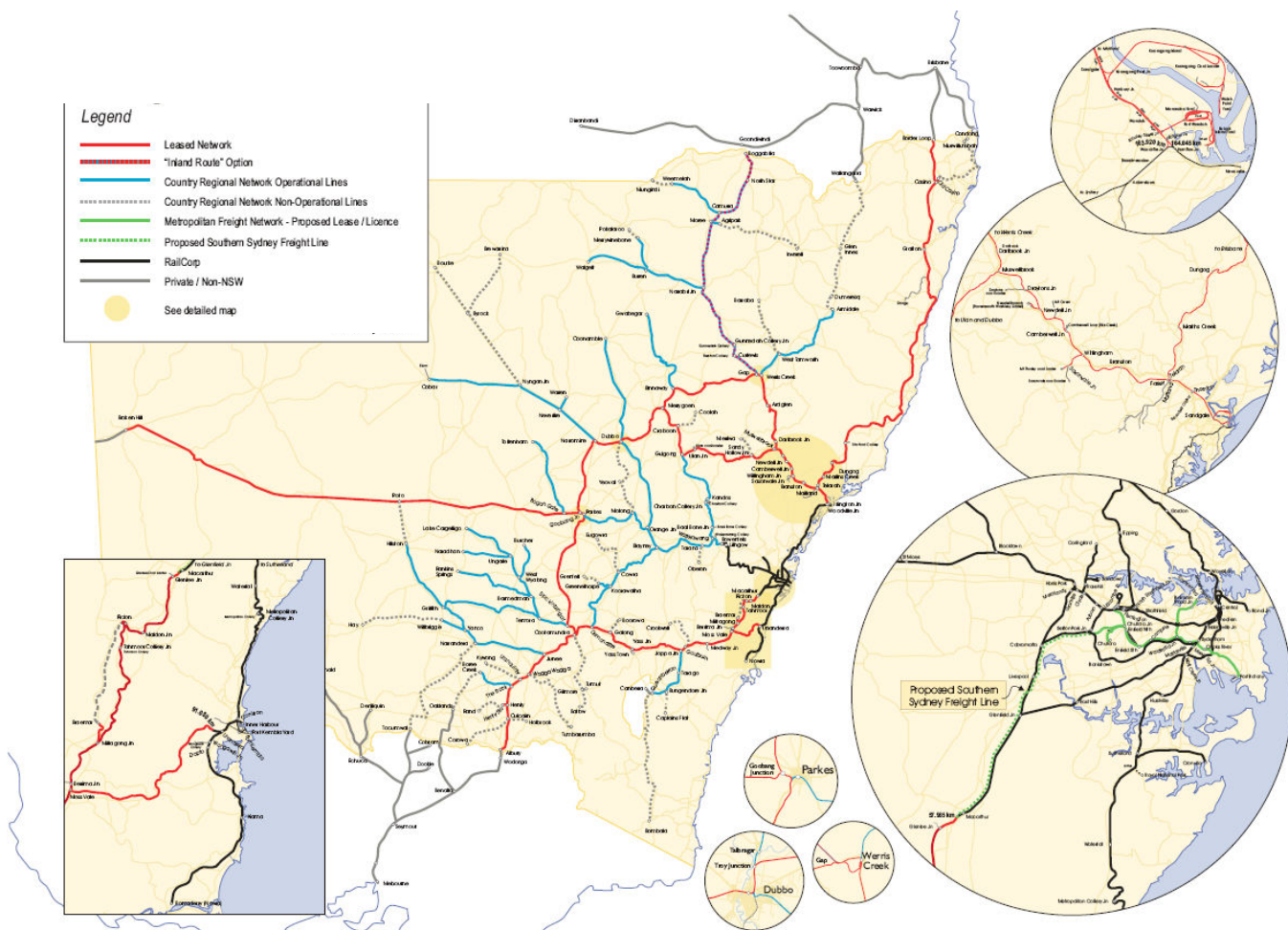


- Where conflicts arise, trains will be managed according to defined and open Network Management Principles.
- Focus is to give priority to the service running on time, where the operator has not caused any delay to the train.
- **Performance Indicators**
  - To be published quarterly (or annually where appropriate)
  - To relate to service reliability, transit time, track condition and ARTC unit costs.
  - To relate to both ARTC and operator performance
  - Reporting will be periodically and independently audited.
- **Indicative Access Agreement**
  - Forms part of the undertaking.
  - Baseline terms and conditions available to an access seeker and enforceable upon ARTC. Where a seeker operates an indicative service and agrees to the indicative terms and conditions, the indicative access charges will apply.
  - The access seeker and ARTC may agree alternative terms and conditions.
  - The undertaking includes those elements which are essential in an access agreement.

As a result of the five years of operation under the above principles, ARTC sees no reason to deviate substantially from the model adopted in the 2002 Access Undertaking, nor many of the processes and treatments provided for. ARTC has, wherever possible, adopt substantially the same approach in the development of 2007 ARTC Interstate Access Undertaking, but recognises that a number of specific requirements (needing alternative or additional treatments in an undertaking) exist to satisfactorily address the market and legislative circumstances on the expanded ARTC network to which the 2007 ARTC Interstate Access Undertaking will apply.

# 4. ARTC'S LEASE OF CERTAIN PARTS OF THE NSW RAIL NETWORK

On 5 September 2004, ARTC commenced operations in NSW under a 60 year lease with the NSW Government of certain parts of the NSW rail network. The lease essentially includes the interstate rail network outside of the Sydney metropolitan commuter network from Macarthur to Newcastle, the Hunter Valley coal network, and some parts of the regional rail network that may form part of a future Melbourne – Brisbane inland route. Figure 4 below shows those parts of the network that are covered by the lease, as well as those parts of the NSW Country Regional Network ("CRN") that are not included in the lease, but are managed by ARTC on behalf of the NSW Government.



ARTC proposes to include in the 2007 ARTC Interstate Access Undertaking, the following parts of the leased interstate network.

- Albury – Macarthur
- Islington Junction (Newcastle main lines) – Queensland Border
- Broken Hill – Parkes (Goobang Junction) – Cootamundra

ARTC has commenced a significant investment program of works on this network in the order of \$2bn to be completed over the next 3 years. ARTC is making this investment in the rail network primarily with the aim of improving the competitiveness of the rail offering in north-south interstate markets in terms of reliability, transit time, capacity and above and below rail yield. Improving rail service levels is expected, together with more holistic corridor management, and complementary investment in above rail infrastructure including rollingstock and terminals, to result in an improvement of rail's modal share in these markets from current levels of around 15% to more than 30% following the investment. ARTC has undertaken significant consultation with the industry since 1999 in order to develop an optimal investment strategy on the corridors in the context of the desired market outcomes to be achieved.

ARTC has also commenced an investment program of around \$385m in the Hunter Valley rail network, which predominantly serves the Hunter Valley export coal industry through the port on Newcastle. ARTC has not proposed to include this network in the 2007 ARTC Interstate Access Undertaking.

The investment program is detailed in ARTC's 2006-11 Hunter Valley Coal Network Capacity Improvement Strategy<sup>4</sup> on ARTC's website.

#### **4.1 Existing Regulatory Arrangements in NSW**

The NSW rail network was covered by the NSW Rail Access Regime<sup>5</sup> until September 2004, which was replaced at the time of commencement of ARTC's lease by the NSW Rail Access Undertaking<sup>6</sup>.

Under the terms of ARTC's lease in NSW, ARTC is required to submit draft access undertaking or undertakings to the ACCC in relation to the leased network. Until undertakings are approved by the ACCC, ARTC will comply with the NSW Rail Access Undertaking in force from time to time.

The Lease also specifically provides for acknowledgement by the lessors, State Rail Corporation of NSW and Rail Infrastructure Corporation that ARTC intends to seek, as part of its pricing principles that may apply to the leased network from time to time, the

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<sup>4</sup> [http://www.artc.com.au/docs/news/pdf/060406\\_HV\\_Coal\\_Network\\_Strategy.pdf](http://www.artc.com.au/docs/news/pdf/060406_HV_Coal_Network_Strategy.pdf)

<sup>5</sup> [http://www.artc.com.au/docs/nsw/network\\_access/info\\_pack/regulatory\\_framework/NSW\\_Rail\\_Access\\_Regime.pdf](http://www.artc.com.au/docs/nsw/network_access/info_pack/regulatory_framework/NSW_Rail_Access_Regime.pdf)

<sup>6</sup> [http://www.artc.com.au/docs/nsw/network\\_access/info\\_pack/regulatory\\_framework/nsw\\_rail\\_access\\_undertaking.pdf](http://www.artc.com.au/docs/nsw/network_access/info_pack/regulatory_framework/nsw_rail_access_undertaking.pdf)

right to recover reasonable additional costs of any change in law effective after 5 September 2004 relating to passenger priority in NSW through access prices of any beneficiary of that change in law.

## 4.2 The NSW Rail Access Undertaking

The NSW Rail Access Undertaking commenced in September 2004. It replaced the NSW Rail Access Regime previously in place, which changes largely to reflect the different operating arrangements in NSW resulting from ARTC's lease, and to relieve the access provider from certain compliance obligations outside the Hunter Valley Coal Network, where access revenue was demonstrably less than 80% of the applicable ceiling limit.

It is generally recognised that whilst the NSW Rail Access Undertaking applies to the NSW rail network in its entirety, its application in terms of most compliance obligations and constraint on access pricing primarily focuses around the Hunter Valley Coal network. This network presently includes the following parts of the ARTC leased network.

- Islington – Maitland (coal lines only)
- Maitland – Dartbrook mine.
- Muswellbrook – Ulan mine.
- Maitland - Craven mine (forming part of the Sydney to Brisbane interstate corridor)

At this time, access revenue related to coal usage only falls well short of full economic cost on the Maitland – Craven mine segment. Access revenue is less than, but near, full economic cost on the Muswellbrook – Ulan mine segment.

With the exception of the Maitland – Craven mine segment, which forms part of the interstate network, ARTC has excluded the Hunter Valley coal network from the scope of the 2007 ARTC Interstate Access Undertaking.

The NSW Rail Access Undertaking, whilst a single document, seeks to recognise the different commercial characteristics of the Hunter Valley Coal Network from other parts of the NSW rail network. Regulatory application, in practice, with respect to the Hunter Valley Coal Network is far greater than that applying on the interstate rail network in NSW. The NSW Rail Access Undertaking, both in terms of its level of prescription and its practical application has lesser overall requirements than that incorporated in the proposed 2007 ARTC Interstate Access Undertaking.

In the 2007 ARTC Interstate Access Undertaking, ARTC is broadly seeking to improve on certain areas, where appropriate, of the 2002 ARTC Access Undertaking, and expand the scope to the interstate network in NSW.

## 5. 2007 ARTC INTERSTATE ACCESS UNDERTAKING

### 5.1 ARTC Approach

As described in Section 3 above, ARTC considers that the 2002 Access Undertaking was largely a formalised recognition of the approach to access, pricing and operations that had been applied by ARTC for several years prior to 2002. ARTC believes that this approach has assisted in delivering the successful outcomes for rail seen on the East-West network. Given this, ARTC sees no compelling reason to substantially adjust the 'formula' for access to the network to that incorporated in the 2002 ARTC Access Undertaking.

ARTC has, wherever possible, adopt substantially the same approach in the development of 2007 ARTC Interstate Access Undertaking, but recognises that a number of specific requirements (needing alternative or additional treatments in an undertaking) exist to satisfactorily address the market and legislative circumstances on the expanded ARTC network to which the 2007 ARTC Interstate Access Undertaking will apply, including,

- enabling competition on the network, in a market that has a different ownership and structure to that which previously existed;
- legislative requirements in NSW, including the delivery of reasonable priority and certainty of access for rail passenger services; and,
- the different economic, commercial and operational circumstances that exist in the Hunter Valley coal supply chain, to that which applies on the interstate network and in other regional markets.

ARTC believes that the model adopted in the 2002 Access Undertaking can successfully be applied to indicative services in NSW. ARTC recognises that there are a few traffics operated in NSW that may operate differently to the standard type of operation on the ARTC network elsewhere. ARTC has in the past had to deal with network usages outside of the standard 'scheduled' template on its own network. In the past, such services have been successfully through a negotiation process, where it is in ARTC interests to maximise network utilisation through increased usage. In this circumstance, such negotiated terms and conditions, including pricing, would be published and made available to substantially similar competing services.

In taking this approach, ARTC is seeking to achieve greater consistency, in terms and conditions, under which access is provided to the interstate network.

## **5.2 Industry Consultation**

As part of the development of the 2007 ARTC Interstate Access Undertaking, ARTC has conducted a process of consultation with industry stakeholders, including primarily ARTC customers, as well as industry representative groups, governments and other rail infrastructure managers.

A consultation draft undertaking was initially provided to stakeholders, and published, for comment through submission. The consultation draft undertaking incorporated a range of new provisions and alternative treatments for comment. To further promote informed consultation, all participating stakeholders were invited to an information session with ARTC. The purpose of the information session was to provide more detailed explanation of the more significant proposed changes to the undertaking and ARTC's reasons for the change. The session also provided participants with an opportunity to seek further explanation of proposals and elaborate on any comments made in submissions.

Following this first round of submissions, ARTC reviewed its proposed variations and, where considered appropriate, either revised or removed proposed changes based on the balance of stakeholder views and ARTC's position. This resulted in substantial changes to many of ARTC's initial proposals.

A second draft undertaking, incorporating mark-ups of changes to the first draft, as well as further explanation of more substantial changes, was provided to stakeholders, and published for a second round of industry consultation. Further submissions received have been considered by ARTC in developing the draft undertaking incorporated in this application.

The purpose of the consultation undertaken by ARTC has been to obtain and take into consideration the views of industry stakeholders in the development of new or varied aspects of the 2002 ARTC Access Undertaking to develop the 2007 ARTC Interstate Access Undertaking.

This has been done in order to develop an undertaking that is ARTC considers is representative of the balance of industry views, as well as seeking to minimise those areas of difference prior to commencing a more formal public consultation on its application.

### 5.3 Summary of key variations from ARTC's 2002 Access Undertaking

Table 1 below shows a summary of key variations between the 2007 ARTC Interstate Access Undertaking and that ARTC has made to the 2002 Access Undertaking. Through these variations, ARTC has sought to recognise changes to market and legislative circumstances that have occurred on the expanded ARTC network during the operation of the 2002 ARTC Access Undertaking as described earlier.

Table 1

REFERENCE	VARIATION	COMMENT
<b>1. Preamble &amp; Objectives</b>		
1.1(d) Introduction	Increased focus on stimulating competition in the rail industry.	ARTC has a commercial interest in promoting competition in the rail industry because ARTC's investment return from the North-South Corridor Improvement Strategy is predicated upon modal shift to rail.
1.1(e) Introduction	Specific recognition of the management and maintenance of the Network on an efficient basis, where maintenance services may or may not be outsourced under maintenance contracts entered into as a result of a competitive tender process.	ARTC shall undertake maintenance on an efficient basis. An assessment of ARTC maintenance costs relative to efficient practice shall be made to the ACCC.
1.2(c)(ii)(B)	Specific recognition of the promotion of economically efficient investment, use and operation of, the Network, as being a public interest.	In the 2007 ARTC Interstate Access Undertaking, ARTC is seeking to recognise a requirement of all access regimes provided under the Competition and Infrastructure Reform Agreement <sup>7</sup> which states:  2.4 <i>All third party access regimes for services provided by means of significant infrastructure facilities will include the following consistent regulatory principles.</i> a. <i>Objects clauses that promote the economically efficient use of, operation and investment in, significant infrastructure thereby promoting effective competition in upstream or downstream markets.</i>
<b>2. Scope &amp; Administration</b>		
2.1(b) Scope	The Undertaking will extend to include the Southern Sydney Freight Line when completed and commissioned.	ARTC expects the new \$245m Southern Sydney Freight Line (SSFL) to be commissioned in 2009-10, which is during the Term of the 2007 ARTC Interstate Access Undertaking. The provide certainty, ARTC has committed to recognise the SSFL as part of the Network when it is commissioned. At that time, ARTC intends to provide the ACCC with any necessary

<sup>7</sup> COAG Meeting - 10 February 2006 - Competition and Infrastructure Reform Agreement



		additional supporting documentation needed in relation to the specific treatment of the SSFL.
<b>2.6 Insurance</b>	ARTC has committed to take out and maintain a liability insurance policy with a limit of not less than \$250,000,000 providing certain indemnities.	ARTC is seeking consistent arrangements in relation to insurance (for both itself and Access seekers) over the whole Network. The quantum of cover is governed by a minimum required by the NSW Government under the Lease.
<b>3. Negotiating for Access</b>		
<b>3.3(a)(x) Provision of Information</b>	Outside of certain standard information, ARTC will provide additional information subject to ARTC having the opportunity to provide an estimate of reasonable cost, and the applicant agreeing to pay such costs.	ARTC recognises that in certain circumstances the preparation of additional information not normally held can be complex and costly. In such circumstances, ARTC is seeking to recover reasonable cost. The variation is also intended to provide some disincentive to an applicant seeking substantial information in excess of normal requirements from ARTC without consideration of the cost involved.
<b>3.4(d)(iii) Prudency test</b>	Additional prudential test for the applicant to demonstrate that it has sufficient resources to meet actual or potential liabilities under an access agreement.	In order to mitigate credit risk associated with the difficulty associated with seeking recourse against a Customer or Operator, that forms part of a more complex legal and financial entity structure, ARTC is seeking to extend its prudential test to include demonstration that an Access Seeker has sufficient resources to meet actual or potential liabilities that might meet under an access agreement.  It is intended that an agreement would further provide for warranties and guarantees from the Access Seeker to this effect. See Schedule C below.
<b>3.5 Confidentiality</b>	Confidential information is limited to only certain types of commercially sensitive information of the applicant and ARTC. Similar exclusions in relation to confidential information apply.	ARTC is seeking to relax the confidentiality arrangements associated with an access application or negotiation to only include certain information that is commercially sensitive, as opposed to an all inclusive arrangement with limited exceptions as currently applies. ARTC's intention is to remove what might be unnecessary constraint to a timely and open negotiation process.
<b>3.12.4 Conflict Manager</b>	The provision for use of a Conflict manager in the Dispute Resolution process has been removed.	ARTC sees little value in the additional and somewhat contemporary option incorporated in the 2002 ARTC Access Undertaking to the standard negotiate-mediate-arbitrate provisions already provided.
<b>4. Pricing Principles</b>		
<b>4.2 Charge Differentiation</b>	Explicit recognition that consideration of the relative consumption of Capacity of different uses of the Network in Charge Differentiation will be determined having regard to the consumption of capacity relative to Indicative Services on the Network.	As utilisation of the Network increases, ARTC is seeking to explicitly recognise in its Pricing Principles, and specifically in relation to differentiation charges in relation to different types of Network usage, the need to take into account the consumption of Network capacity.  The predominant usage of the Network, and the primary driver of investment in the Network relates to that required for rail competition in interstate intermodal markets. This usage is characterised by the Indicative Service specified in the 2007 ARTC Interstate Access Undertaking. ARTC considers that one element to be considered in differentiating prices

		in relation to network usages other than for Indicative Services should relate to the relative consumption of Network Capacity of other Network usages relative to the Indicative Service.
<b>4.4 (a), (d), (e) Revenue Limits and RAB roll-forward</b>	<p>Revenue for a Segment will be below the Ceiling Limit in a year, where RAB is less than RAB Floor Limit in that year.</p> <p>Provision and specification of separate and concurrent annual roll-forward of initial RAB to determine both RAB and RAB Floor Limit during the Term.</p> <p>Annual comparison of RAB and RAB Floor Limit to determine applicability of the Ceiling Limit to revenue.</p>	Further detail in relation to the Revenue Limits, RAB, and RAB Floor Limit determination, their application and reasons for adoption of a revised approach can be found at Attachment A.
<b>4.4(g) Cost Allocation</b>	<p>Non segment specific costs and depreciation and return on non-segment specific assets will be allocated to a corridor, corridors or identified as system wide. Where identified with a corridor or corridors, allocation will be to segments forming part of the corridor or corridors respectively. Where identified as system wide allocation will be to all segments.</p> <p>Allocation in relation to Non-Segment Specific Costs and Depreciation of, and return on, Non-Segment Specific Assets associated with infrastructure maintenance will be in proportion to GTK.</p>	<p>Non segment specific costs and depreciation and return on non segment specific assets as aggregated and allocated to all segments in the 2002 ARTC Access Undertaking. In recognising the broader geographic spread of ARTC, allocation is now proposed to be undertaken separately on the basis of segments forming an identified corridor or corridors where possible, or separately allocated to all segments where identified as system wide. As ARTC's internal management and accounting structure may change from time to time, ARTC proposes not to specifically define corridors in the undertaking.</p> <p>ARTC is seeking to clarify the basis upon which certain Non-Segment Specific Costs and Depreciation of, and return on, Non-Segment Specific Assets will be allocated. The proposed cost allocation approach is consistent with that currently used by ARTC in relation to the allocation of such costs in the Hunter Valley and endorsed by the Independent Pricing and Regulatory Tribunal of NSW. The approach has also been adopted by ARTC for the allocation of such costs between the Network and other parts of the ARTC network not forming part of the Network (such as the Hunter Valley network).</p>
<b>4.5 Structure of Charges</b>	<p>Introduction of the Excess Network Occupancy Charge (ENOC) as a new and additional component of the Charges. The charge would apply where a path sought by an access seeker required time to be scheduled for above rail requirements that was in excess of prescribed times on a corridor. The charge would be based on each excess hour or part thereof.</p>	Further detail in relation to the ENOC, its application and reasons for its introduction can be found at Attachment B.
<b>4.6(b) Indicative Access Charge</b>	<p>Indicative Access Charges have been revised by ARTC. Indicative Access Charges have been</p>	<p>In the 2002 ARTC Access Undertaking, Indicative Access Charges (primarily relating to east-west intermodal business) were predicated on charges</p>

	<p>specified for the Network (including Segments in NSW). Indicative Access Charges in NSW replace existing pricing for Indicative Services in NSW. Indicative Access Charges have been determined on a corridor rather than jurisdictional basis.</p>	<p>applied to this type usage on the ARTC network at the time. These charges had been set through a market based negotiation undertaken in 1995. At that time, charges were set to reflect the residual after above rail operating costs were removed from prevailing competitive freight charges.</p> <p>ARTC understands that charges for this type of usage were set on a similar basis in NSW at around the same time.</p> <p>In both cases, charges have in some years been varied by an amount less than CPI. As such, charges have fallen substantially in real terms of the period between 1995 and 2007. Further eroding effective revenue yield, to ARTC in particular, has been the substantial improvement in the productivity with which operators of this type of usage have been able to use capacity made available to them. This has resulted from increases in length limits and allowable axle loading resulting from ARTC investment and engineering practices over the period. The outcomes and impact of this is described at Section 3.1.</p> <p>Attachment C provides details of an assessment of rail competitiveness in intermodal markets on both the east-west and north-south interstate corridors. This analysis underpins revisions made to Indicative Access Charges.</p> <p>It should be noted that in addition to the revision to Indicative Access Charges incorporated in the 2007 ARTC Interstate Access Undertaking, ARTC has proposed a 10% rebate of the Indicative Access Charges with regard to related usage on the Melbourne – Macarthur and Newcastle – Queensland Border Segments on the Network for the two year period commencing with the introduction of Indicative Access Charges.</p>
<p><b>4.6(d) Indicative Access Charge</b></p>	<p>An Indicative Access Charge may be varied at any time during the Term. The variation may not exceed to difference in accumulated application of CPI from 1 July 2007 to the 1 July of the year in which the variation is to occur (relevant Determination Date) and the accumulation of actual variations to the Indicative Access Charge up to the relevant Determination Date. Any variation to an Indicative Access Charge may not be less than zero.</p>	<p>Further detail in relation to the pricing variation mechanism, its application and reasons for its introduction can be found at Attachment D.</p>
<p><b>5. Management of Capacity</b></p>		
<p><b>5.2 Capacity Reservation</b></p>	<p>Where an access seeker wishes to contract to capacity that will not be utilised for more than 6 months, ARTC will agree to reserve that capacity subject to there being sufficient capacity available until</p>	<p>In order to facilitate and encourage utilisation of the network, ARTC believes that an ability to secure network capacity well ahead of utilisation mitigates uncertainty in developing new business for a potential access seeker, and reduces barriers to entry.</p>

	<p>commencement of operations and the access seeker agrees to pay a reservation fee. The amount of the reservation fee will be determined by ARTC having regard to the opportunity cost foregone in reserving the capacity until its use. The fee will be reduced to the extent that the capacity is actually used during the period of reservation.</p>	<p>However, making capacity available with long lead time reduces ARTC's ability to maximise utilisation of that capacity in the ensuing period. Almost all capacity utilisation on the network is under a longer term contract. Short to medium term access rights have a significantly reduced chance of attracting utilisation. ARTC seeks to be compensated for this opportunity cost. ARTC will have regard for the extent of this opportunity cost in determining the reservation fee. ARTC also recognises that a reservation fee may, in itself, act as a barrier to a new entrant. In this regard, ARTC has a commercial incentive to accommodate the needs an access seeker and increase network utilisation.</p> <p>Where ARTC can secure utilisation of the capacity during the period of reservation, the reservation fee will be reduced accordingly.</p>
<p><b>9. Definitions &amp; Interpretation</b></p>		
<p><b>Additional Capacity / Extension</b></p>	<p>Introduction of a definition of 'Extension'.</p>	<p>The 2002 ARTC Access Undertaking provided for different treatments of network capacity expansions, and extensions to the network. To improve clarity of the 2007 ARTC Interstate Access Undertaking, ARTC has sought to clarify the distinction between an expansion of network capacity and an extension to the network. An extension is additional infrastructure that is not part of the Network when proposed to ARTC. An expansion (Additional Capacity) refers to the capability of the Network and so relates to the infrastructure that is part of the Network.</p> <p>By way of examples, an increase in the length of an existing crossing loop would normally be considered an expansion of capacity. Construction of a new crossing loop would normally be considered an expansion of capacity, as mainline crossing loops are defined as part of the Network. On the other hand, a siding or spur line would normally be considered to be an extension of the network as it would not form part of the Network when proposed.</p>
<p><b>Capital Expenditure</b></p>	<p>Capital Expenditure has been defined for the purposes of annual RAB roll forward and annual RAB Floor Limit roll forward contemplated in cl 4.4(d). Capital Expenditure is specified for each year of the Term and each Segment in Schedule H. Circumstances that may result in a variation to specified Capital Expenditure during the Term are prescribed. A definition of Prudent in relation to Capital Expenditure has been included.</p>	<p>To increase certainty for ARTC and the industry, ARTC has estimated its major works program for the Term of the 2007 ARTC Interstate Access Undertaking. ARTC is proposing to incorporate Capital Expenditure in each years RAB roll forward and RAB Floor Limit roll forward, once approved.</p> <p>ARTC is proposing that Capital Expenditure as estimated in Schedule H is considered to be Prudent for the purpose of roll forwards, where consideration of whether Capital Expenditure is Prudent is to have regard to whether the Capital Expenditure:</p> <ul style="list-style-type: none"> <li>▪ Is needed to meet market demand for capacity and performance of the Network, or needed to extend the economic life of Network;</li> <li>▪ results from what is considered to represent an</li> </ul>

		<p>efficient means to achieve that demand or extend that economic life;</p> <ul style="list-style-type: none"> <li>▪ is incurred efficiently in implementing the capital or renewals project, in the context of prevailing access and operating requirements, and input costs.</li> <li>▪ Is related to a capital or renewals project by ARTC that is supported by the industry.</li> </ul> <p>ARTC is proposing that Capital Expenditure as estimated in Schedule H may vary from time to time as a result of changes in the above circumstances or from adjustments relating to timing of the commencement and/or commissioning of projects.</p>
<b>Schedule C – Essential Elements of Access Agreement</b>		
<b>NSW lease obligations</b>	Agreements must include provisions that allow ARTC to meet its obligations under its NSW lease have been included.	As part of the NSW Lease, ARTC is required to meet certain obligations in NSW relating to Passenger priority, and requires all agreements to permit it to meet those obligations.
<b>Environmental Licence</b>	Agreements must include provisions requiring the access seeker to comply with ARTC's Environmental Licence and environmental management system manual.	In particular, ARTC's licence under the NSW Protection of the Environment Operations Act requires ARTC to take appropriate steps to ensure the activities of Operators do not contravene the Act.
<b>Third party rights</b>	Agreements must include provisions that allow ARTC to meet its obligations in relation to third party rights to conduct works on the Network.	ARTC is required to permit certain third parties to conduct works on the Network. ARTC requires all agreements to acknowledge its obligations in this regard and relieve ARTC of any Operator obligations it is unable to meet as a result of those third party works.
<b>Payment of costs</b>	Agreements must provide for payment of legal costs of execution (such as stamp duty and fees) in all relevant jurisdictions on the access agreement and any document contemplated or allowed by the access agreement.	Applies to costs associated with execution of an access agreement and related documents only. Such costs should be recovered from the specific access seeker as opposed to forming part of general overheads.
<b>Warranties</b>	Agreements must include warranties and guarantees from Operators sufficient to meet obligations or potential obligations under the Access Agreement.	ARTC is seeking to mitigate credit risk that can arise in relation to an access seeker entity existing in a more complex and opaque company structure.
<b>Schedule D – Indicative Access Agreement (IAA)</b>		
<b>Scope</b>	The application of the IAA is limited to Indicative Services.	The IAA is available to any access seeker wishing to operate an Indicative Service on the Network. Should the access seeker agree to the terms and conditions of the IAA, then the Indicative Access Charges, as varied from time to time in accordance with the IAA, would apply. An access seeker, including those wishing to operate a service other than an Indicative Service may negotiate terms and conditions other than those specified in the IAA, subject to Schedule C of the 2007 ARTC Interstate Access Undertaking.

<p><b>2.3 Passenger Priority in New South Wales</b></p>	<p>A provision has been included seeking the Operator to acknowledge ARTC's obligation with respect to Passenger Priority in relation to the Network in NSW.</p>	<p>Under its lease in NSW, ARTC is required to ensure that all access agreements incorporate provision for the application of passenger priority in NSW insofar as relates to service planning, train programming for daily operations, and train control in accordance with the Network Management Principles.</p>
<p><b>2.9 Re-negotiation of Scheduled Train Paths</b></p>	<p>The Operator may give ARTC notice, not less than 120 days prior to expiry of an access agreement that it wishes to re-new the agreement in relation to its Scheduled Train Paths. ARTC may consent to the renewal of Scheduled Train Paths and enter into a new agreement with the Operator on terms and conditions (including Charges) in accordance with an Access Undertaking in force at the time.</p>	<p>The previous indicative agreement enabled an Operator to 'lock in' paths indefinitely (known colloquially as 'grandfathering rights'). As a result of the amendment, paths entitlements will not exceed the term of the access agreement.</p>
<p><b>4.3 Excess Network Occupancy Charge</b></p>	<p>The Operator must pay, where applicable, all Excess Network Occupancy Charges (ENOC)</p>	<p>Refer 4. above.</p>
<p><b>4.5 Variation of Charges – Consumer Price Index</b></p>	<p>An Indicative Access Charge may be varied at any time during the Term. The variation may not exceed to difference in accumulated application of CPI from the Commencement Date to the 1 July of the year in which the variation is to occur (relevant Determination Date) and the accumulation of actual variations to the Indicative Access Charge up to the relevant Determination Date. Any variation to an Indicative Access Charge may not be less than zero.</p>	<p>Refer 4. above.</p>
<p><b>4.7 Track Extensions and Additional Capacity</b></p>	<p>Extensions and Additional Capacity are more clearly defined. An Operator will not be required to pay any additional fee or charge in relation to a varied Train Path that includes utilisation of any Additional Capacity provided by ARTC.</p>	<p>Improved clarity in definition. A Track Extension is normally additional infrastructure not currently defined as forming part of the Network. Additional Capacity relates to additional capability of the Network to carry additional task arising from an enhancement or improvement of the infrastructure associated with the Network.</p> <p>Greater certainty is also provided in relation to charges for use of Additional Capacity provided by ARTC, where the Operator is not able to choose whether or not to use the Additional Capacity.</p>
<p><b>4.12 Costs</b></p>	<p>Provision for Operator agreement to pay legal costs of execution (such as stamp duty and fees) in all relevant jurisdictions on the access agreement and any document contemplated or allowed by the access agreement.</p>	<p>Refer Schedule C above.</p>

<b>5.5 (g) &amp; (h) Operator's Obligations</b>	Separation of obligation not to 'damage' the network from other obligations.	Dispute resolution over costs for damage caused by incidents has focussed on this clause and the proper meaning of 'damage'. On legal advice, ARTC has separated the obligation not to damage the network to focus attention on it as a cause of action for breach.
<b>5.6 ARTC Conduct</b>	In formulating Indicative Access Charges, ARTC will not differentiate where service characteristics are alike and the same end market is involved.	ARTC is seeking to better align its commitment to that made in the 2007 ARTC Interstate Access Undertaking.
<b>5.7 Removal of Rolling Stock from Network</b>	ARTC has the right to direct that rollingstock obstructing the network be moved, and if it is not moved in accordance with the notice, to arrange for it to be moved.	ARTC will be in a better position to satisfy its contracted obligations to provide access if it is in a position to serve notice on Operators who obstruct the network.
<b>9.4 Third Party Works</b>	The Operator acknowledges the third parties may, and ARTC can permit, carry out works on the network. The Operator agrees that ARTC has no liability, nor will it make a claim against ARTC in relation to such works.	Refer Schedule C above.
<b>9.9 Cancellation of Scheduled Train Paths</b>	The ability to transfer cancellation entitlements between like paths is no longer available.	
<b>10.3 Monitoring Equipment</b>	Provisions in relation to Monitoring Equipment are no longer dealt with in the IAA.	Arrangements in relation to monitoring equipment are now dealt with under separate specific agreements.
<b>13.6 ARTC's Environmental Licence</b>	The Operator is required to implement and comply with the conditions of ARTC's Environmental Licence in South Australia and NSW. To comply, trains must comply with licence conditions, EPA approval for a train and compliance with that approval is required in NSW. The Operator must implement and comply with ARTC's environmental management system manual, and implement, maintain and comply with its own manual, consistent with ARTC's.	Refer Schedule C above.
<b>15. Indemnities and Liabilities</b>	Refer Attachment E below.	Refer Attachment E below.
<b>16. Insurance</b>	Refer Attachment E below.	Refer Attachment E below.
<b>17. Resolution of Disputes</b>	Provision for arbitration has been removed from the IAA.	The requirement for arbitration represents a potential inhibition on prompt resolution of disputes and a potential cost burden on the parties. History has shown that the process of negotiation, mediation and litigation is the preferred methodology between ARTC and Operators.
<b>18. Confidentiality</b>	Refer 3. above	Refer 3. above.
<b>Schedule 4 – Network Management Principles</b>	Refer Schedule F below.	Refer Schedule F below.
<b>Schedule 5 – Key</b>	Key Performance Indicators for the	The revised definition of 'healthy' is consistent with the

<b>Performance Indicators</b>	<p>purposes of the IAA have been adjusted to:</p> <ul style="list-style-type: none"> <li>• Reflect a consistent and contemporary definition of a healthy train.</li> <li>• Reflect a consistent and contemporary definition of Track Quality Index (TQI)</li> </ul>	<p>definition applied in NSW, and which ARTC is rolling out of the Network. The primary difference is that a train that is 'unhealthy' becomes 'healthy' again if it recovers its path. Under the definition in the 2002 ARTC Access Undertaking, once a train becomes unhealthy it retains that status regardless of subsequent performance. ARTC is seeking to implement a single definition and measurement of KPI across the Network.</p>
<b>Schedule 7 – Code of Practice</b>	<p>Network Rules and Interface Requirements for each jurisdiction provided separately.</p>	<p>Reworded Schedule clarifies different arrangements in each jurisdiction.</p>
<b>Schedule E – Network</b>		
<b>NSW Network</b>	<p>Maps describing the Network have been incorporated.</p>	<p>For clarity, and in addition to Network descriptions, maps highlighting that infrastructure forming part of the Network have been included. As a general rule of thumb, the Network includes those elements of infrastructure need to enable mainline operations to be conducted.</p>
<b>Schedule F – Network Management Principles</b>		
<b>Network Management Principles</b>	<p>A single set of Network Management Principles applies to the Network.</p>	<p>In order to create a single set of Network Management Principles across the whole of the Network, ARTC has sought to roll out the principles that have been in operation in NSW since 2004 to the ARTC network outside of NSW, replacing those principles forming part of the 2002 ARTC Access Undertaking.</p> <p>ARTC considers that the previous NSW principles are not substantially different to those applying on the ARTC network outside of NSW and is not likely to significantly impact on ARTC's management (or the operators use) of that network.</p> <p>Under the new principles, a train is now considered healthy when it is on path regardless of previous performance. This was not the case previously outside of NSW.</p>
<b>Schedule G – Performance Indicators</b>		
<b>Key Performance Indicators</b>	<p>New indicators have been included to report performance in relation to Transit Time for each major Segment. Measurement will be undertaken with respect to Transit Time delivered by network configuration, maintenance requirements, and network usage. Measures specified in the 2002 ARTC Access Undertaking have, in the main, been retained.</p>	<p>In order to inform the market in relation to the relative impact of network configuration, maintenance, and network usage on capability and performance of the Network, ARTC is proposing three new measures.</p> <p><i>Transit Time – Infrastructure Configuration Capability</i> A measure of transit time over the Network, delivered by the infrastructure given its configuration (alignment, grades, curves and associated permanent speed restrictions). Measured by simulated operation of a reference Indicative Service over the Network (excluding prevailing temporary speed restrictions). Reported on the basis of average speed. Intended to measure transit time achievable as a result of network configuration only and without the impact of temporary speed restrictions and network operations conflicts.</p> <p><i>Transit Time – Infrastructure Practical Capability</i></p>



		<p>A measure of transit time over the Network, delivered by the infrastructure given its configuration (as measured by Transit Time – Infrastructure Configuration Capability) and maintenance requirements (including the transit time impact of temporary speed restrictions). The transit time impact of temporary speed restrictions is determined by applying the temporary speeds restrictions in place on the Network to a simulation model designed to determine the total of time lost by reference Indicative Service subject to each temporary speed restriction. Reported on the basis of average speed. Intended to measure transit time achievable as a result of network configuration and temporary speed restrictions arising from maintenance requirements only and without the impact of network operations conflicts.</p> <p><i>Transit Time – Availability to market</i></p> <p>A measure of transit time offered to the market, delivered by the infrastructure given its configuration, maintenance requirements and network usage (scheduled delays for path interactions). Measured by average scheduled transit time for Indicative Services adjusted for any Operator requirements (dwells, deviation from offered section run times). Reported on the basis of average speed. Intended to measure transit time achieved Indicative Service paths on average excluding above rail dwell and running time requirements.</p> <p>Reporting to be made in terms of average speed (inverse of transit time) to reduce measurement difficulties associated with difference path origins and destinations.</p> <p>Previous measures in the 2002 ARTC Access Undertaking have been retained for continuity, notwithstanding a change in the definition of ‘healthy’ described above.</p>
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**Schedule H - Capital Expenditure**

<p><b>Capital Expenditure</b></p>	<p>Capital Expenditure is specified for each year of the Term and each Segment.</p>	<p>ARTC is proposing that Capital Expenditure as estimated in Schedule H is considered to be Prudent for the purpose of roll forwards. See 9. above.</p> <p>Attachment F below provides further detail in relation to the Capital Expenditure as estimated in Schedule H. A substantial majority of the proposed Capital Expenditure on the Network relates to the North-South Corridor Investment Strategy. Specifically, Attachment F provides supporting details in relation to the projects forming Capital Expenditure, benefits, industry consultation and analysis undertaken by ARTC, and delivery strategy in relation to the North-South Investment Strategy. ARTC’s approach in developing and implementing the North-South Corridor Investment Strategy has been to ensure that the Capital Expenditure:</p>
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		<ul style="list-style-type: none"><li>• is needed to meet market demand for capacity and performance of the Network, or needed to extend the economic life of Network;</li><li>• results from what is considered to represent an efficient means to achieve that demand or extend that economic life;</li><li>• is incurred efficiently in implementing the capital or renewals project, in the context of prevailing access and operating requirements, and input costs.</li><li>• is related to a capital or renewals project by ARTC that is supported by the industry.</li></ul> <p>In following this approach, ARTC ensures that Capital Expenditure is Prudent.</p>
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Attachment A

## Revenue Limits

### Conventional approach to defining a ceiling revenue limit

#### 'Building Block Model'

The revenue limit is equal to the sum of the 'return on capital' (WACC times RAB) plus depreciation 'return of capital' (determined on some basis) plus operating expenditure\*.

The Regulatory Asset Base ("RAB") is rolled forward as the sum of the previous RAB inflated, less depreciation plus net capital expenditure.

The conventional 'Building Block Model' may not be suitable on all networks:

- Revenue earned may fall short of the 'Building Blocks' revenue limit. The access provider is earning below-normal returns in this period. This should be offset by allowing the access provider to earn above-normal returns from an asset in some other period so as to ensure normal returns allowed to be earned over the life of the asset.
- Demand may be variable. May be economically efficient to charge higher prices for services in years when demand is strong, and lower prices in other years, while still earning normal returns on average overall.

### The proposed approach

#### 'Capitalisation Model'

The proposed approach seeks to allow an access provider a greater degree of flexibility than is normally possible under the building block approach.

The access provider is allowed to 'capitalise' any economic losses incurred over time, provided its RAB is above a specified lower limit, so the access provider is allowed to earn a regulated return on these losses in the future.

#### *RAB annual roll-forward*

$$RAB_{t \text{ start}} = RAB_{t-1 \text{ end}} = (1 + WACC) * RAB_{t-1 \text{ start}} - \text{Out-turn Revenue}_{t-1} + \text{Out-turn Opex}_{t-1} + \text{Net Capex}_{t-1}$$

Under the proposed approach, if the access provider is earning insufficient revenue to cover operating expenditure and capital costs, the RAB will increase over time, reflecting the need to recover larger amounts of revenue in the future.

### 'The RAB Floor Limit'

If the access provider is consistently earning excess returns and is not investing at high levels, RAB must eventually decline. The proposed approach includes a floor below which the RAB is not allowed to drop – 'The RAB Floor Limit'

Once RAB drops to the RAB Floor Limit, the access provider is no longer free to choose access pricing. Instead, prices are regulated according to the conventional building block approach.

The RAB Floor Limit starts at a level at or near initial RAB, and evolves over time, according to a conventional building block approach.

### RAB Floor Limit annual roll-forward

$$\text{RAB Floor Limit}_{t \text{ start}} = \text{RAB Floor Limit}_{t-1 \text{ end}} = (1 + \text{CPI}_{t-1}) * \text{RAB Floor Limit}_{t-1 \text{ start}} + \text{Net Capex}_{t-1} - \text{Depreciation}_{t-1}$$

The initial RAB is determined on a DORC basis.

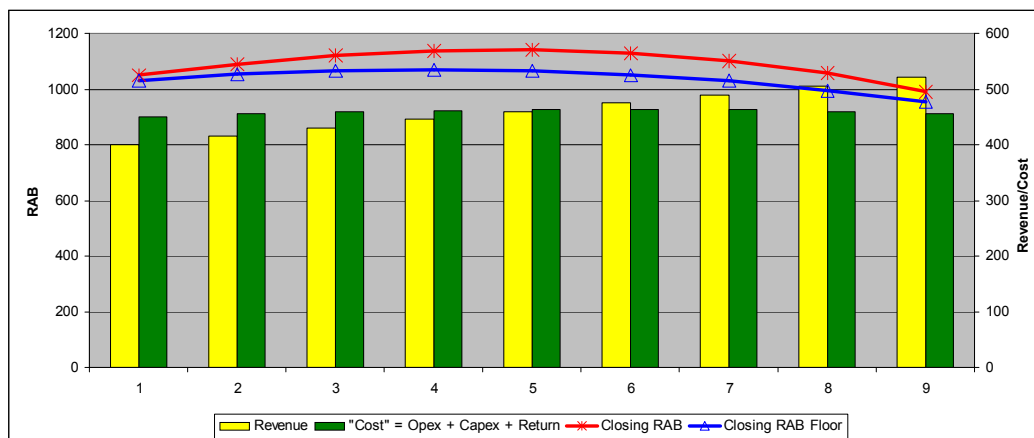
### Examples

1. RAB does not reach RAB Floor Limit. Access provider is allowed to capitalise losses in the early years.

Opening RAB = Opening RAB Floor Limit = \$1000  
Capex = \$150

Opex = \$200  
WACC = 10%

Access pricing set to achieve revenue of \$400 increasing annually by \$15. Numbers are for illustrative purposes only.



2. Revenue in excess of costs. RAB declines rapidly. When RAB reaches Floor Limit, access provider must revert to building block approach, substantially reducing revenue.

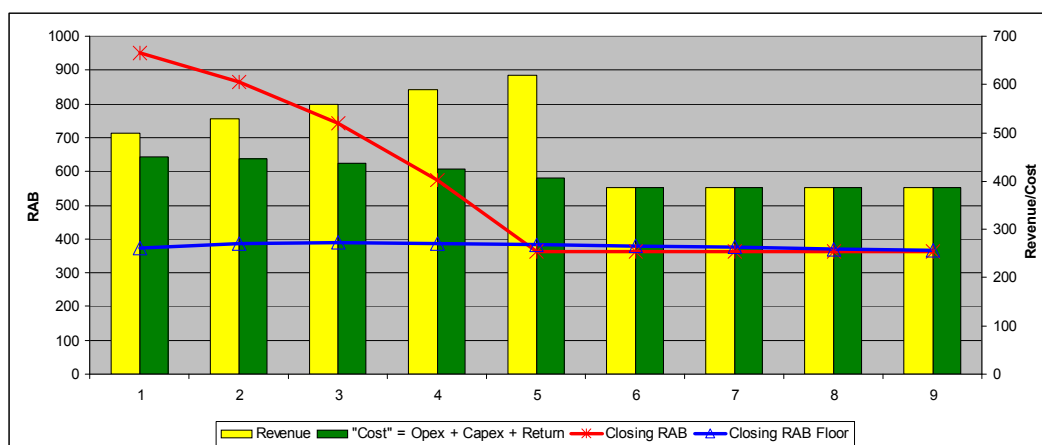
Opening RAB = \$1000, RAB Floor Limit is lower at say \$350 (reflecting earlier accumulated losses)

Opex = \$200

Capex = \$150

WACC = 10%

Access pricing set to achieve higher revenue of \$500 increasing annually by \$30. Numbers are for illustrative purposes only.



### ARTC's proposed application of the Revenue Limits

ARTC will determine RAB for each Segment for each year of the Term. The Initial RAB for each Segment will be set at DORC for that Segment as at the Commencement Date. The roll forward for each year will be based on the formula specified above, as well as:

- ARTC's WACC for the Network;
- forecast operating expenditure directly associated with that Segment or allocated to that Segment;
- forecast Capital Expenditure for that Segment as specified at Schedule H of the 2007 ARTC interstate Access Undertaking; and,
- forecast access revenue derived from all traffic on that Segment.

Concurrently, ARTC will determine the RAB Floor Limit for each Segment for each year of the Term. The Initial RAB for each Segment will be set at DORC for that Segment as at the

Commencement Date. The roll forward for each year will be based on the formula specified above, as well as:

- CPI estimate;
- forecast Capital Expenditure for that Segment as specified at Schedule H of the 2007 ARTC interstate Access Undertaking; and,
- forecast depreciation of assets on that Segment determined on a straight line basis.

Diagrams showing forecast RAB and RAB Floor Limit for each Segment on the Network during the Term are shown at Appendix 1 to this Attachment.

Any applicable Ceiling Limit is adjusted (reduced) to the extent of return on assets paid for through grant funding where there is clearly no expectation of a return for the funding.

The diagrams illustrate that, due to ARTC being unable to recover near Full Economic Costs on any Segment, RAB will lie above the RAB Floor Limit on all Segments for each year of the Term. As such, on each Segment and for each year of the Term, ARTC pricing will not be constrained to a level such that access revenue for that Segment will be less Full Economic Cost for that Segment (the conventional revenue ceiling limit).

If it is able to, ARTC could derive revenue in excess of the conventional revenue ceiling limit during the Term. In any event, and for each year of the term, the revenue ARTC could derive from a Segment would be limited to its operating costs plus depreciation of, and return on, its assets and prior capitalised losses (RAB), and any losses not previously recovered.

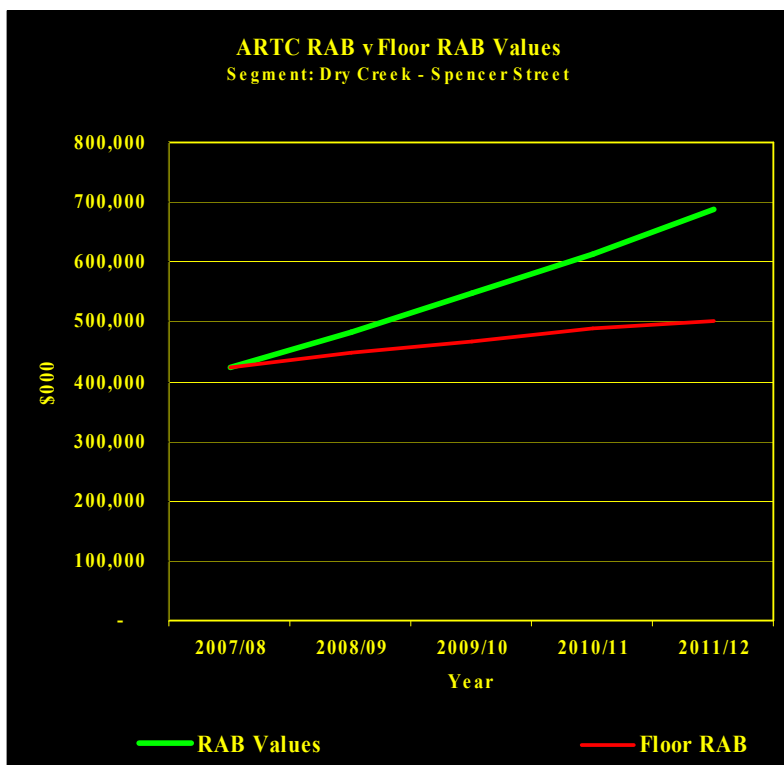
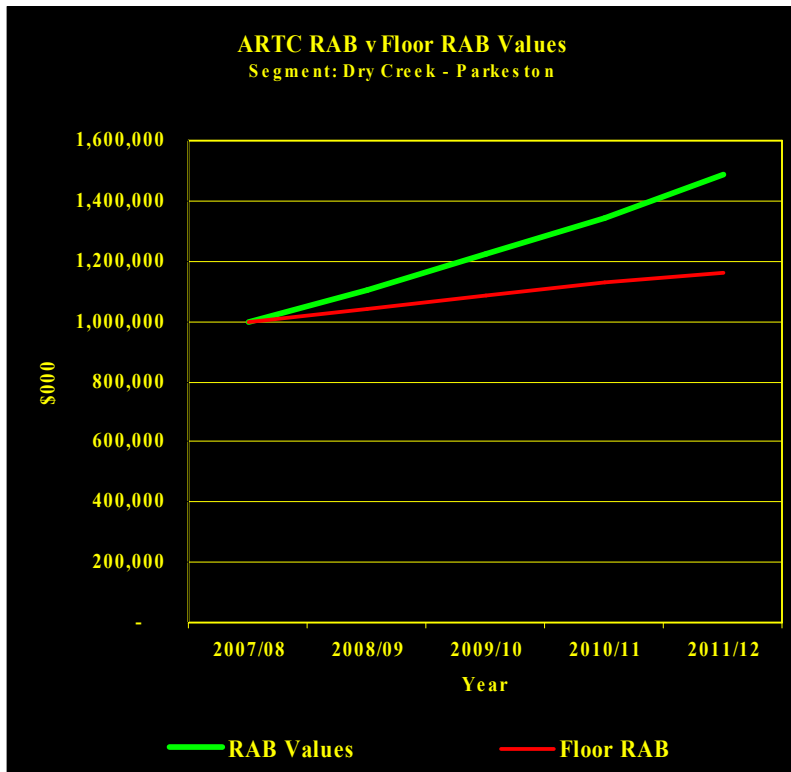
In effect, for each Segment, the full recovery of prior losses acts as a trigger to the regulatory constraint of access revenue to the conventional revenue ceiling limit.

Irrespective of the application of the Revenue Limits as described above, Indicative Access Charges for Indicative Services are capped to a maximum annual CPI linked variation provided under clause 4.5 of the 2007 ARTC Interstate Access Undertaking. As such, for ARTC to derive the higher revenues on a Segment during the Term needed to recover Full Economic Costs, substantial growth in utilisation of the Segment would be required.

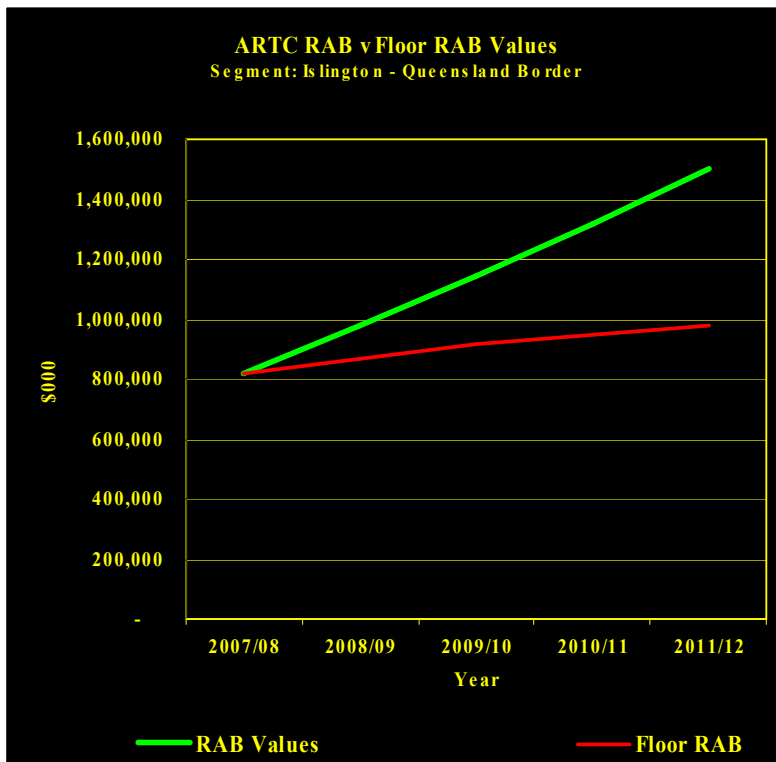
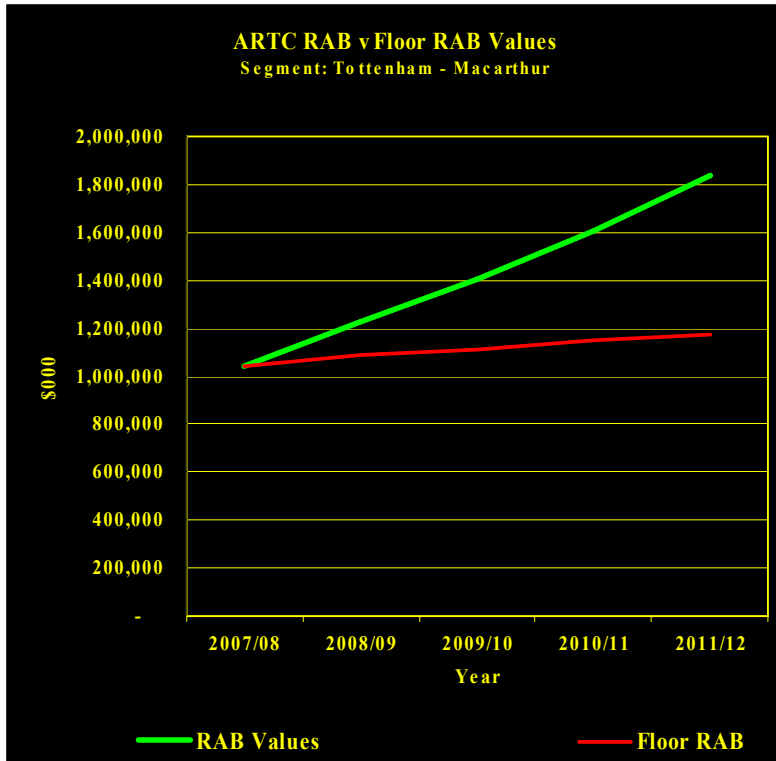
Diagrams showing ARTC access revenue, incremental cost (Floor) and full economic cost (notional Ceiling) determined under a conventional building block approach for each Segment and for each year of the Term are shown at Appendix 2 to this Attachment. It should be noted that due to the application of the RAB test above, this Ceiling Limit will not constrain access revenue for the Segment and is shown notionally only.

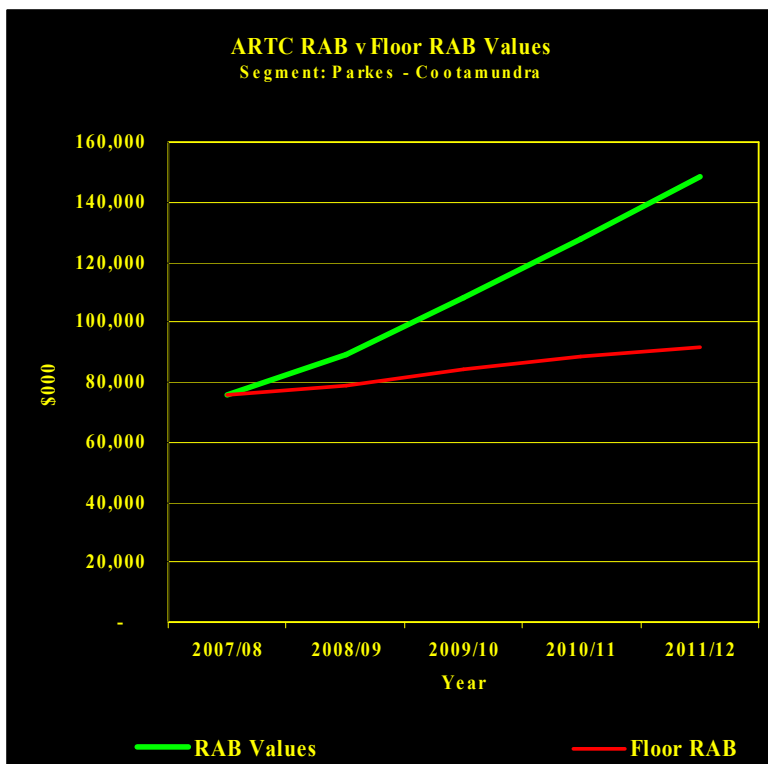
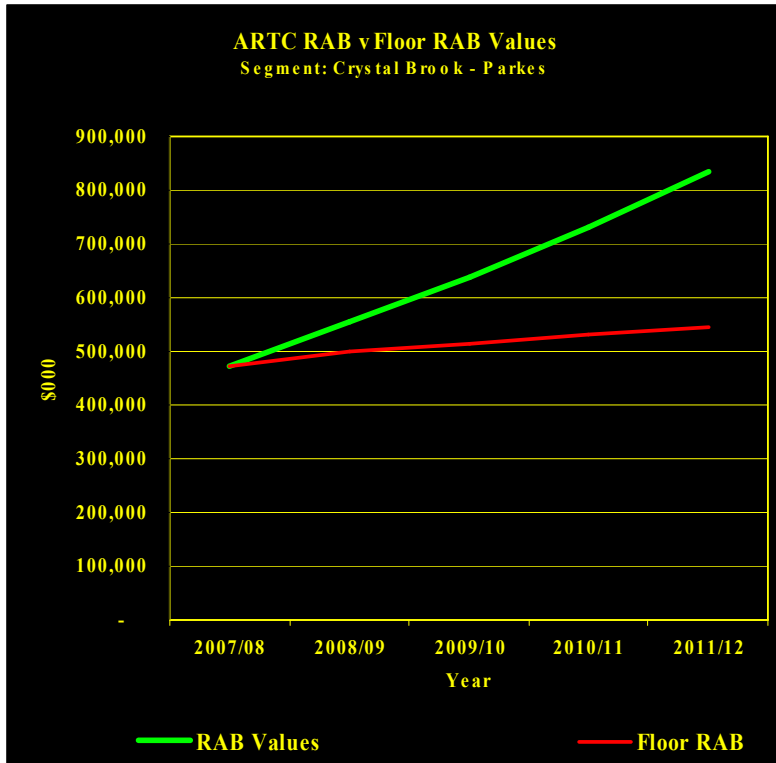
For illustrative purposes, ARTC has also included a diagram showing what the effective **regulatory** limit (“the trigger” as described above) on ARTC revenue where recovery of and on prior economic losses is included.

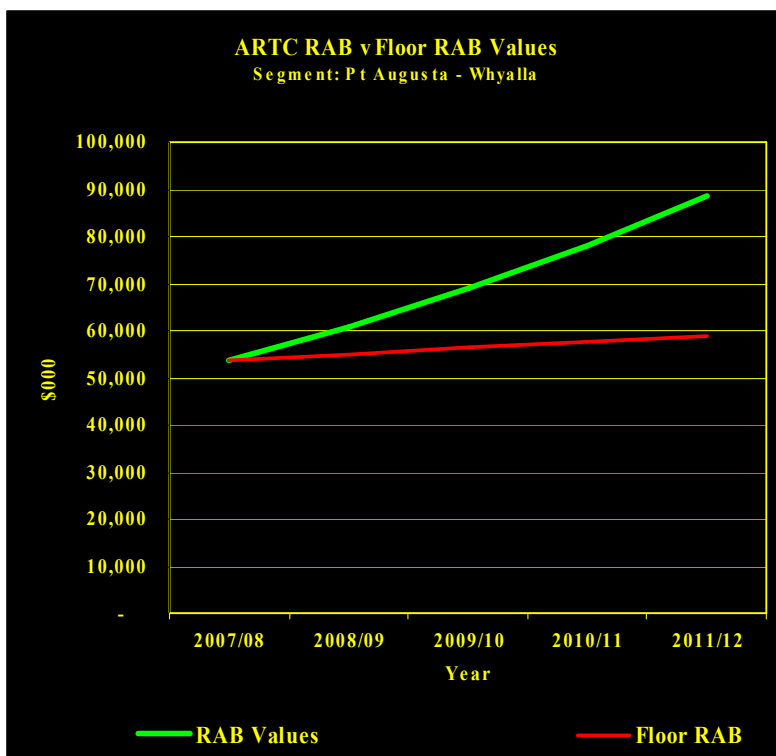
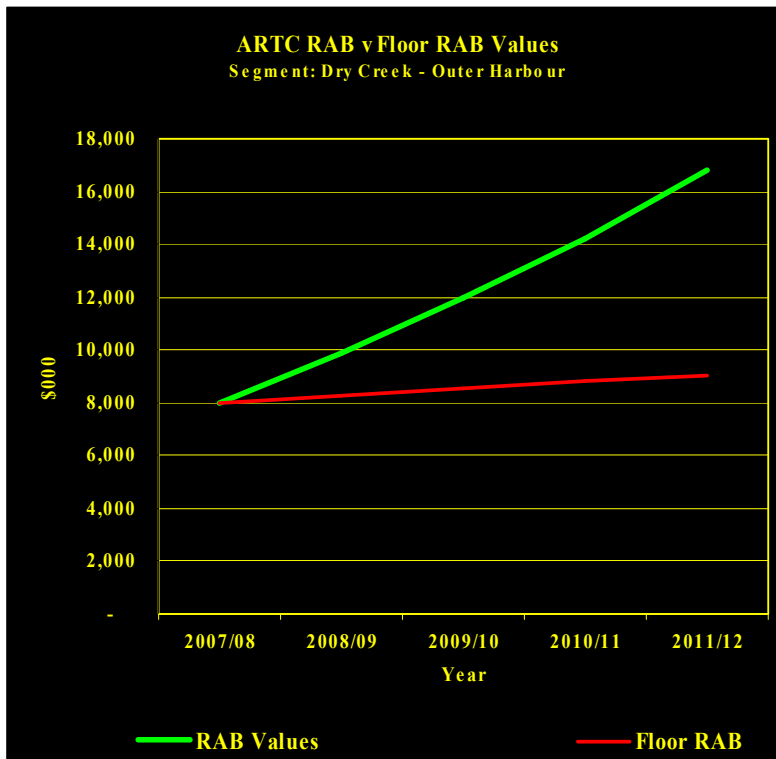
### ARTC Network RAB and RAB Floor Limits for each Segment

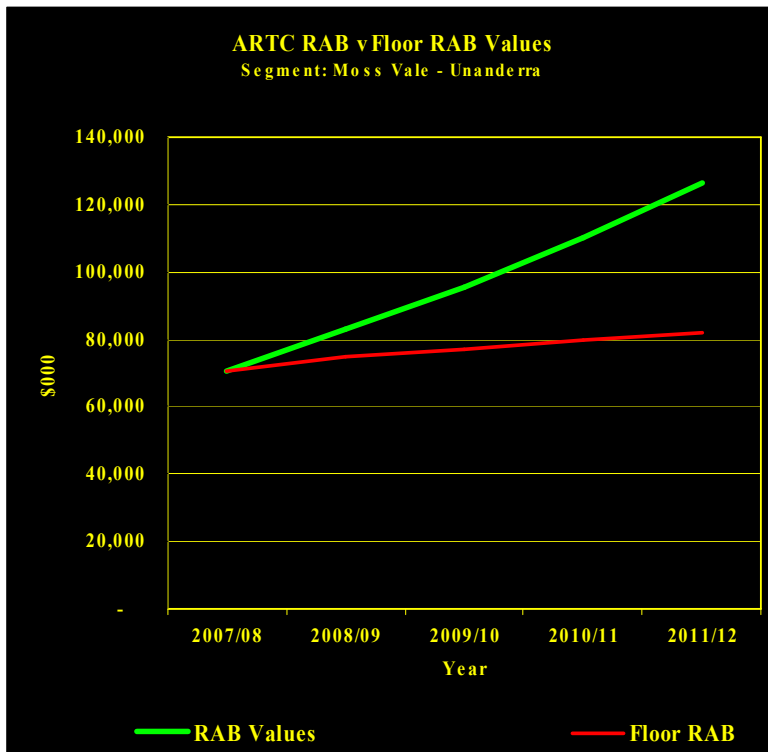






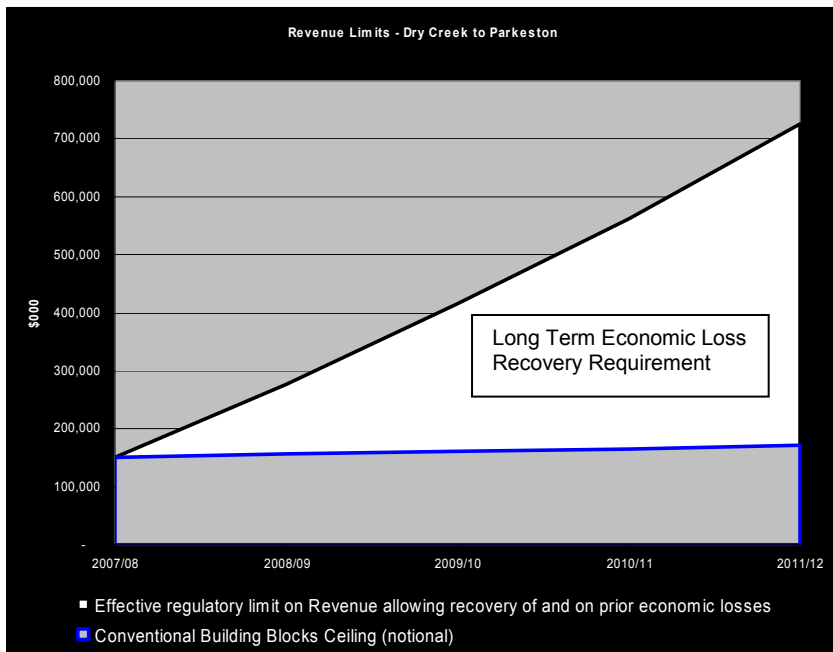
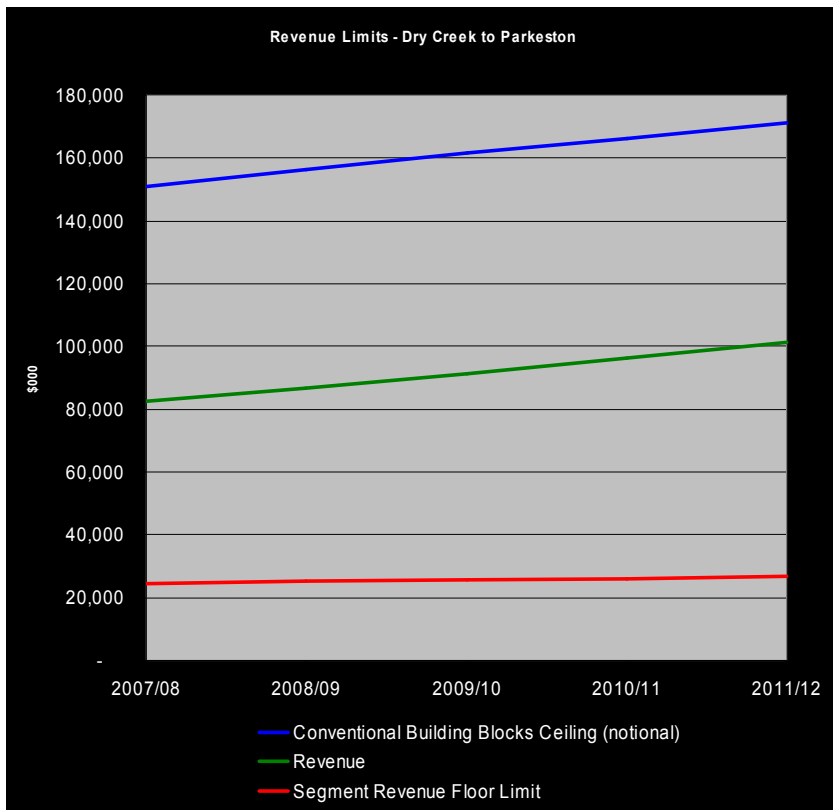


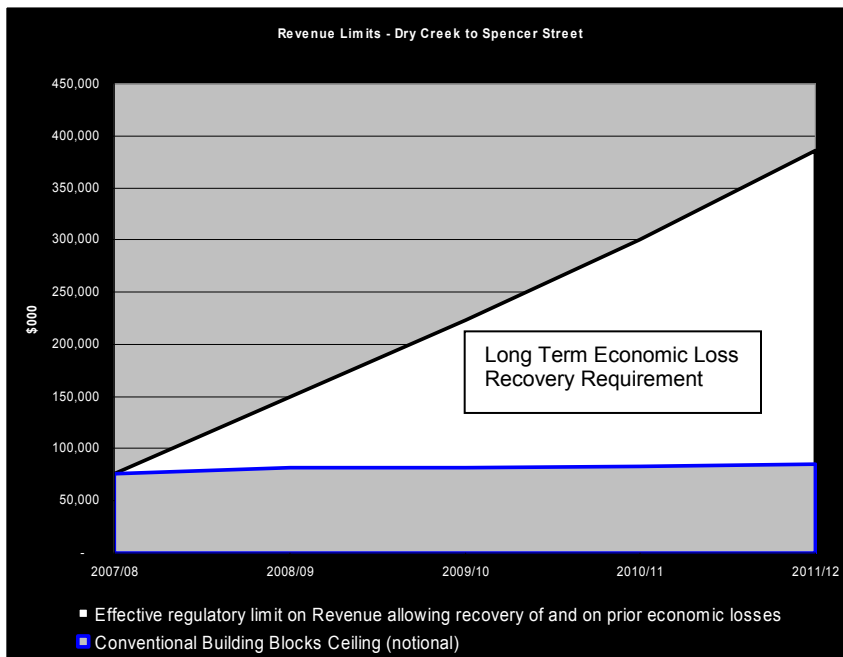
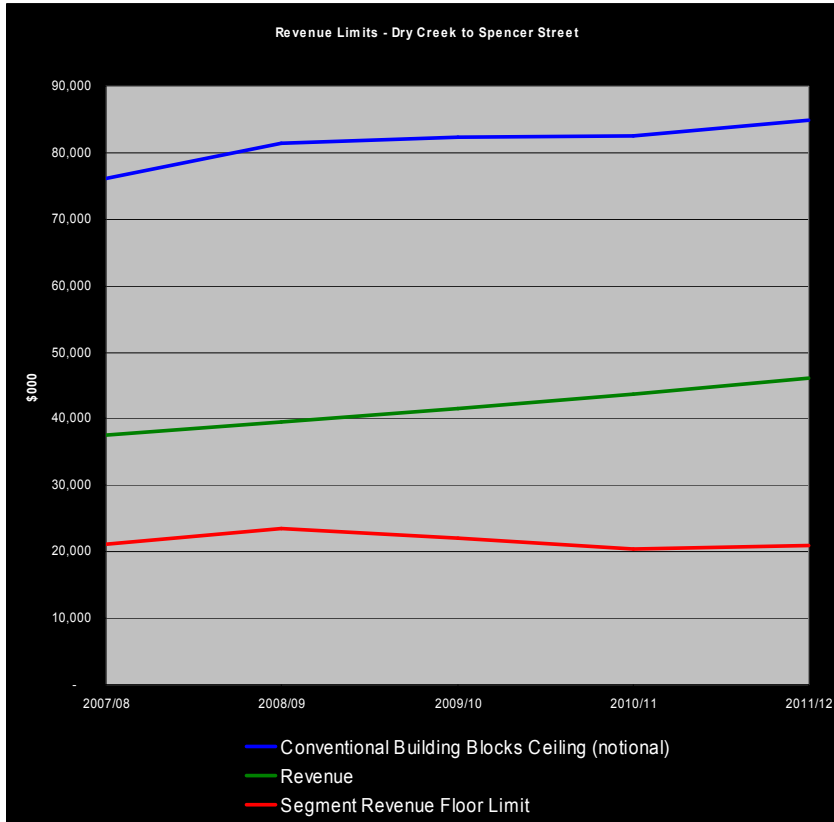


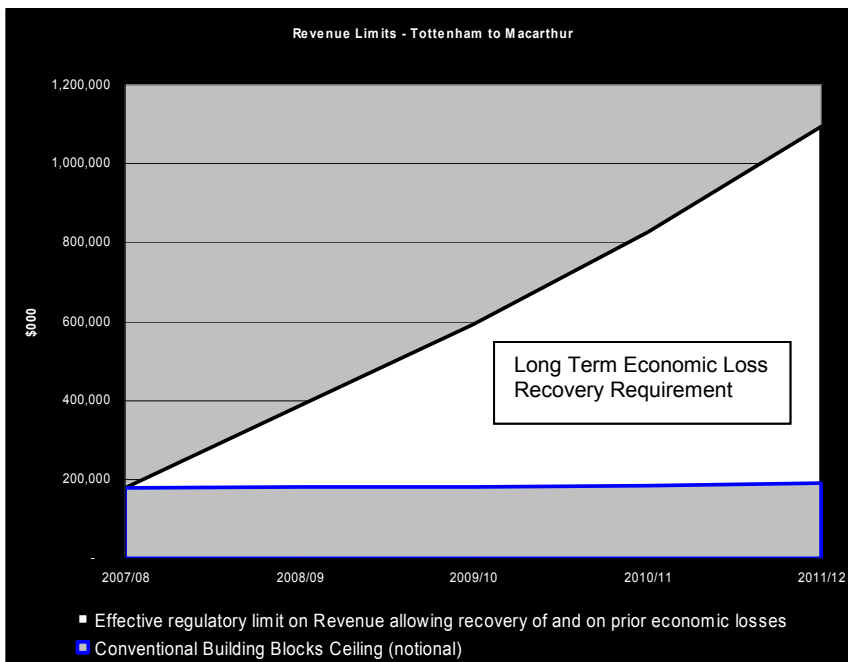
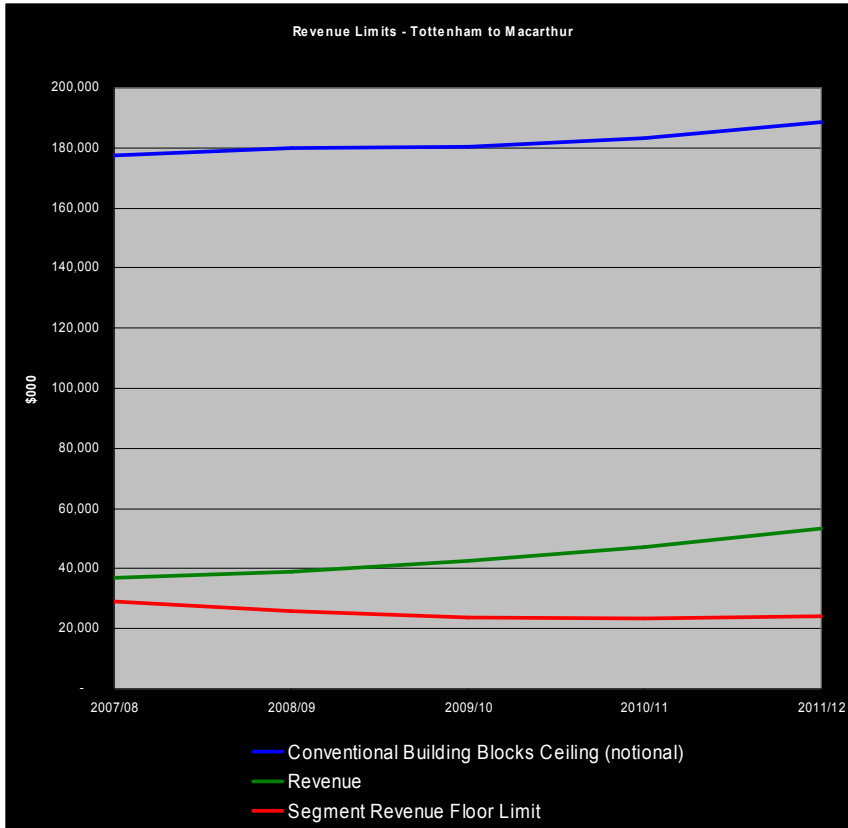


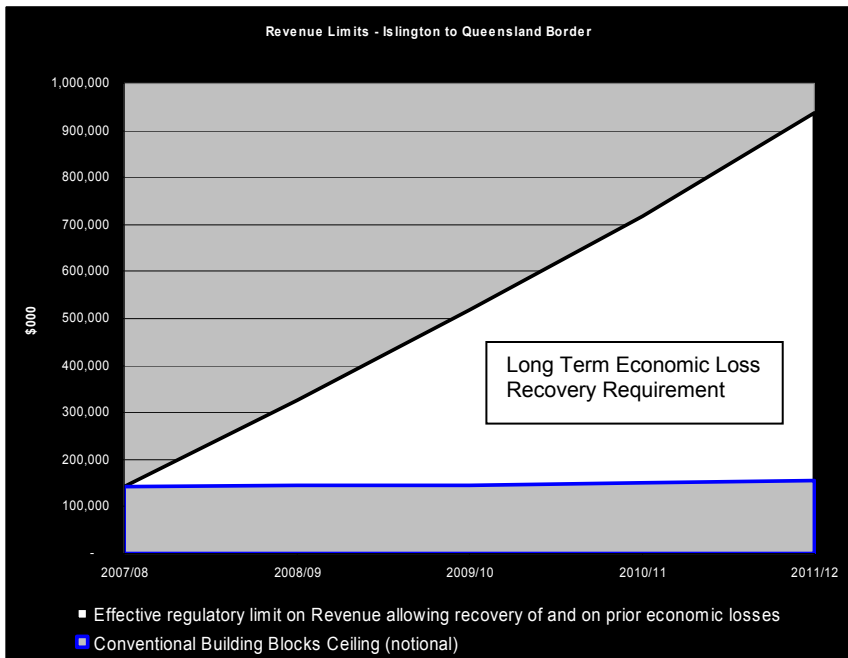
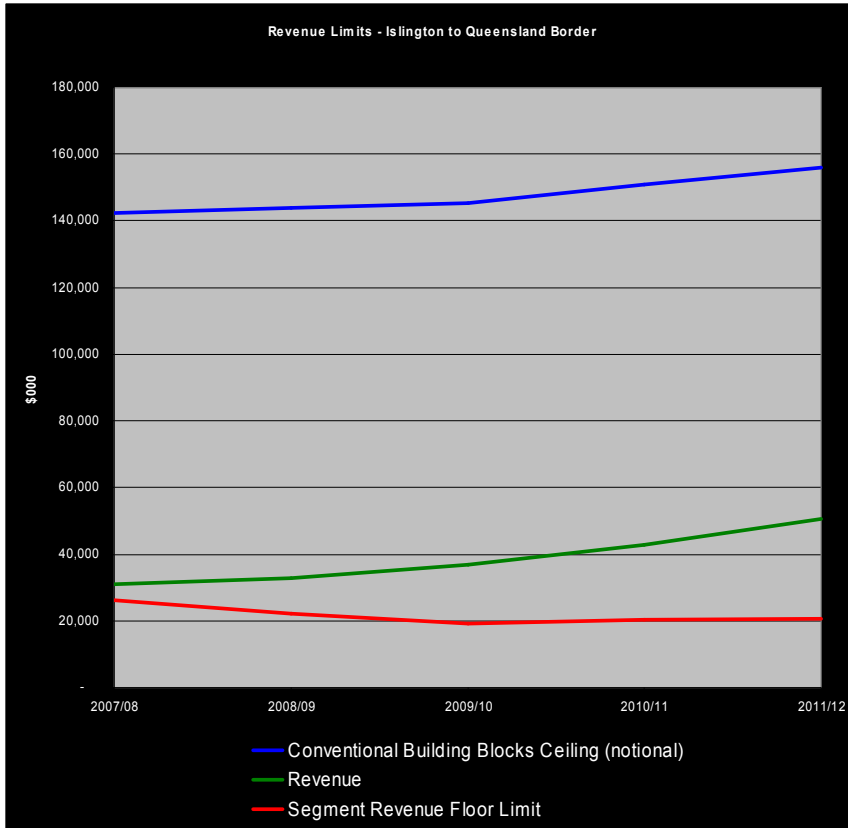
Appendix 2

**ARTC Network Access Revenue, Floor Limits, and notional Ceiling Limits and effective 'regulatory' limit on Access Revenue for each Segment**

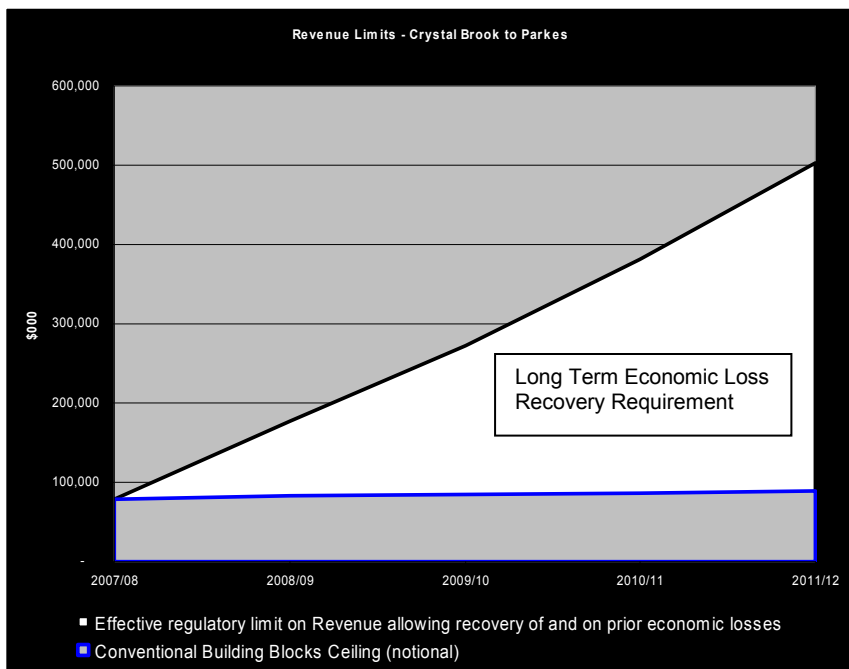
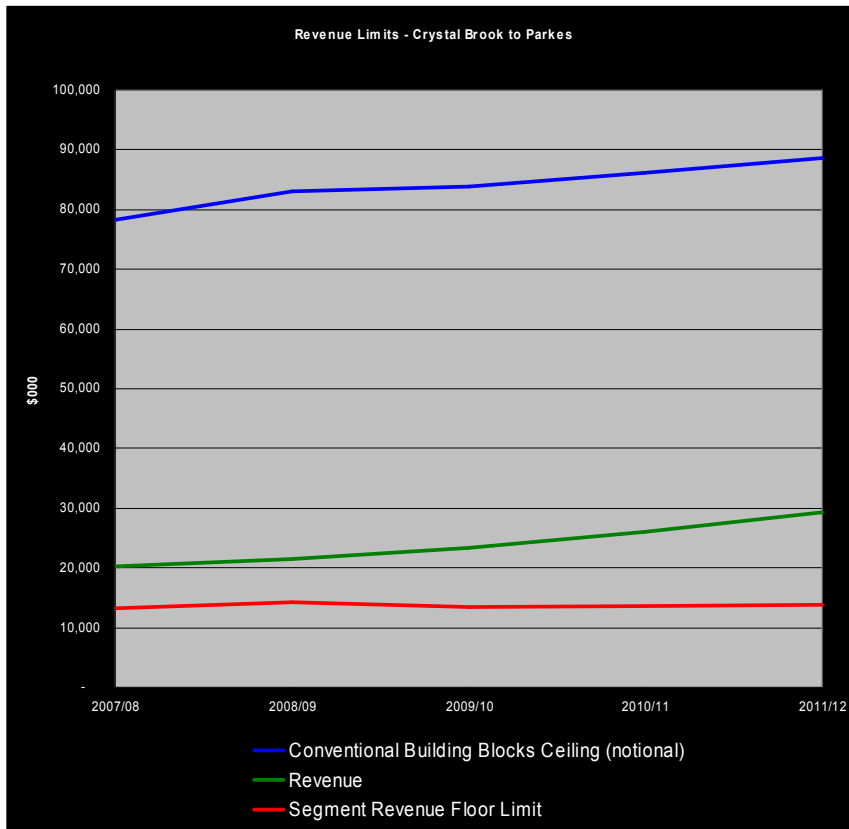


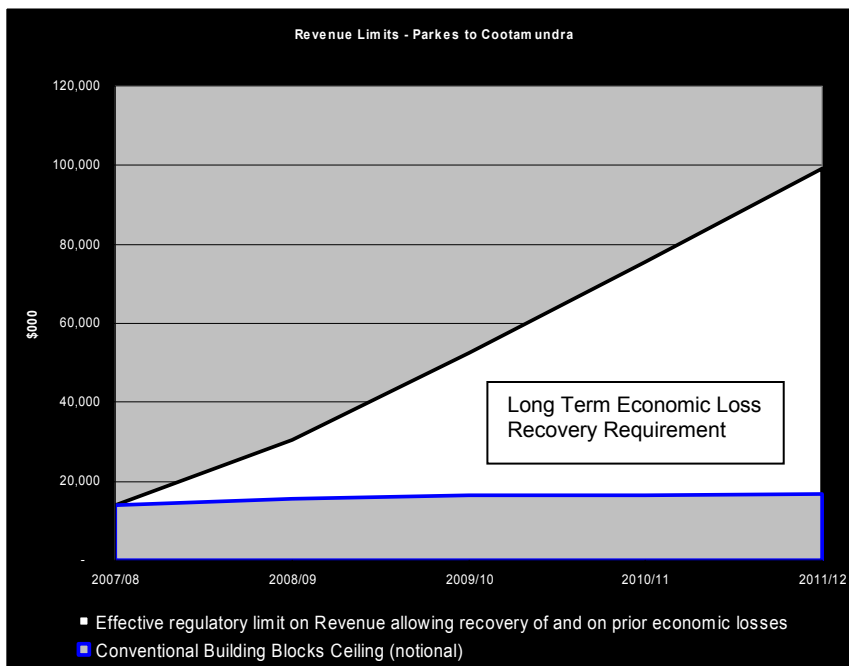
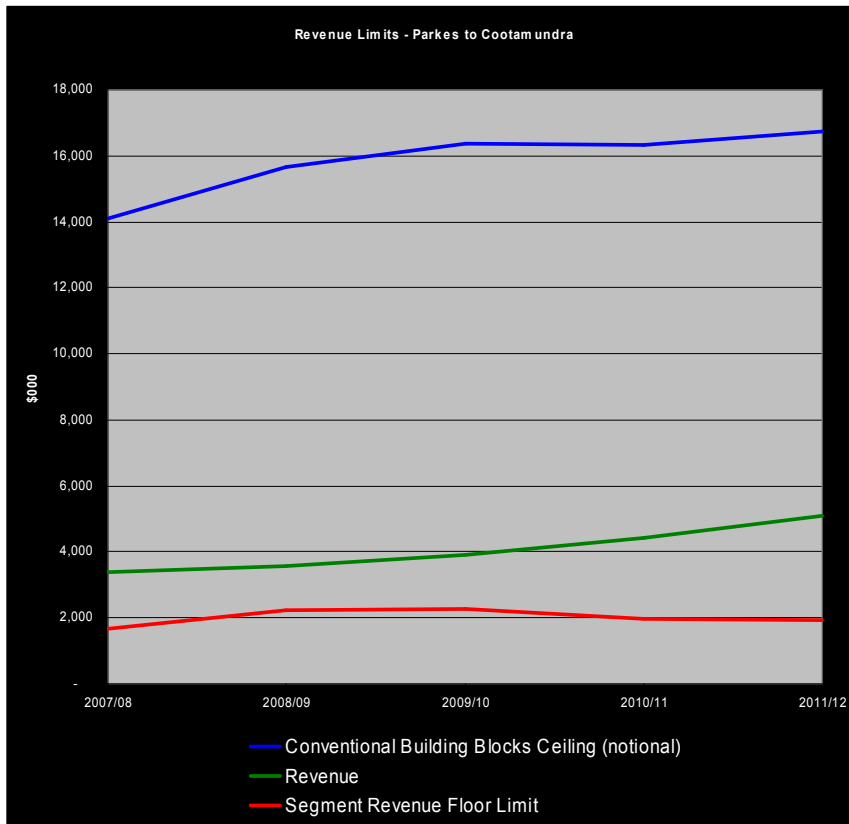


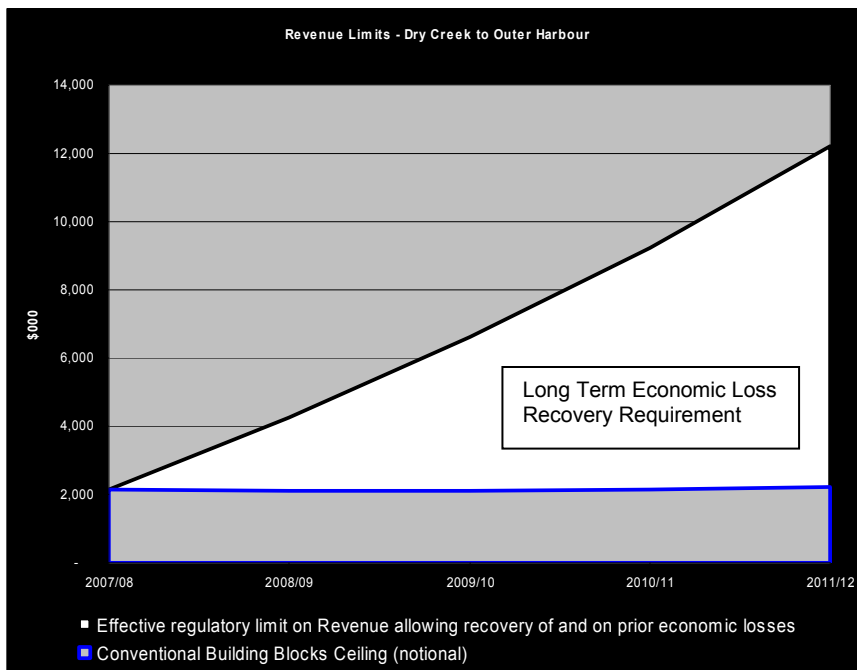
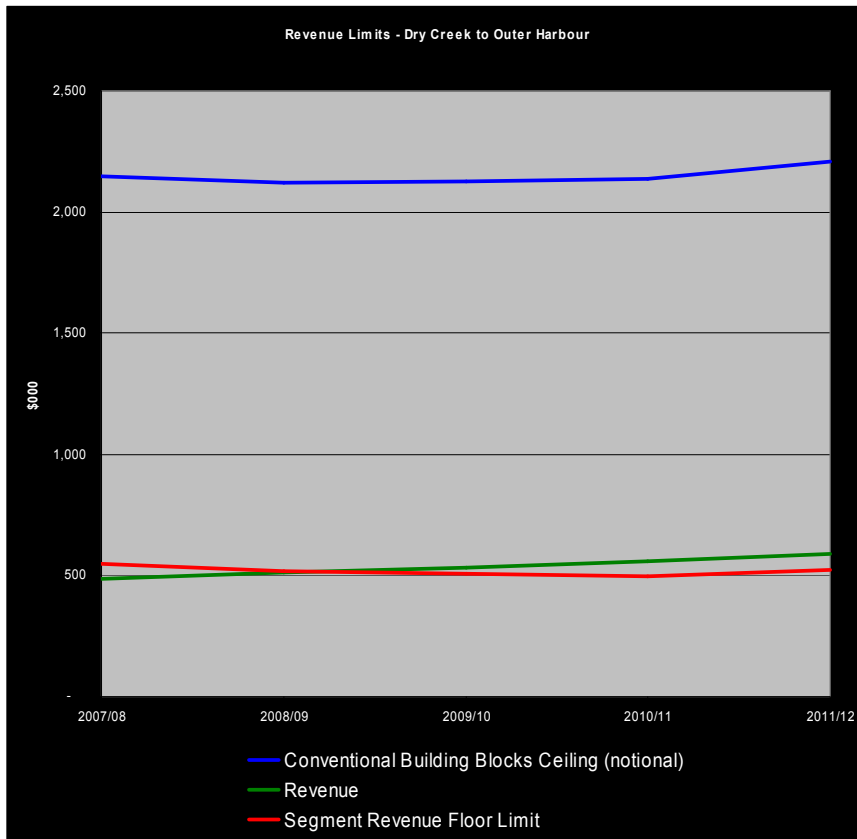


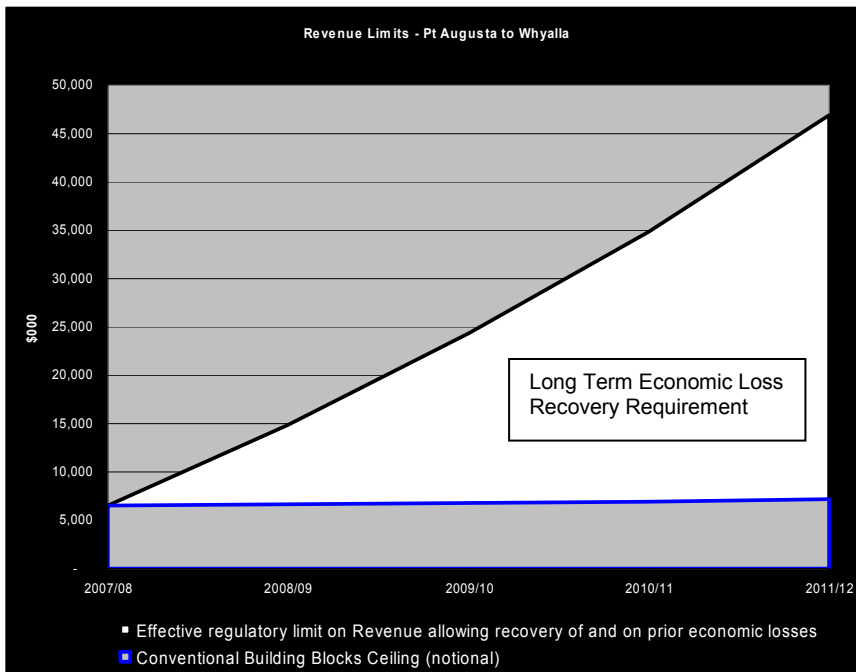
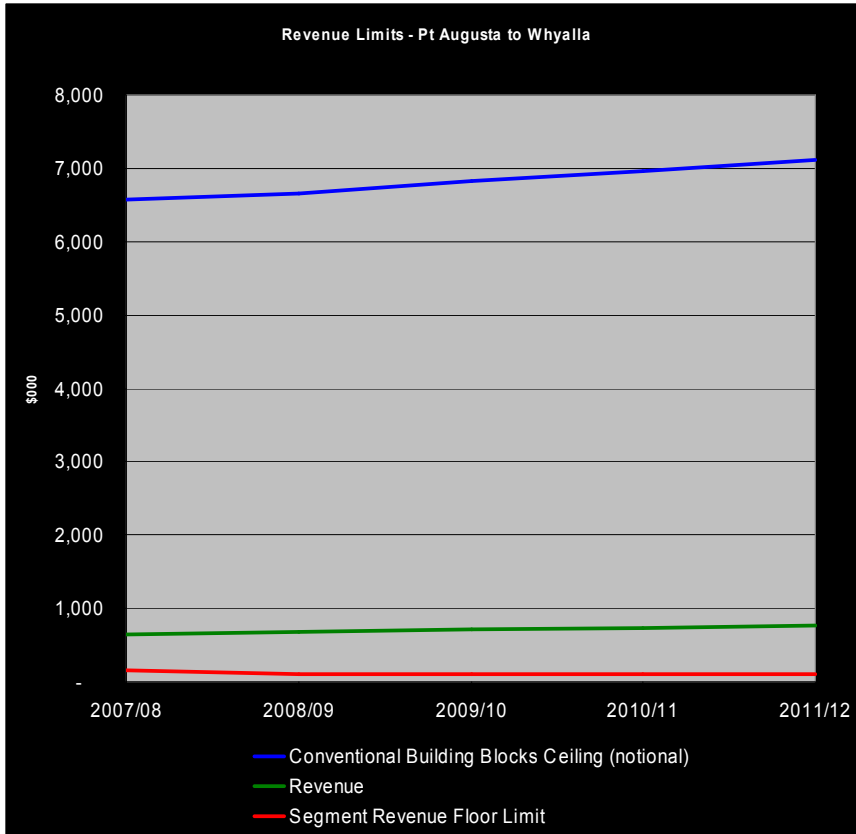


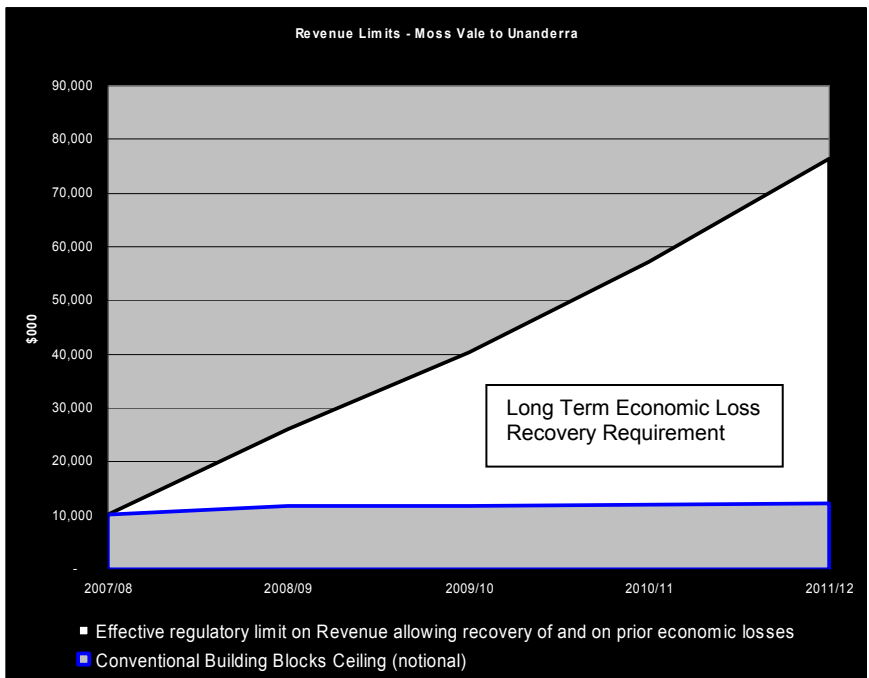
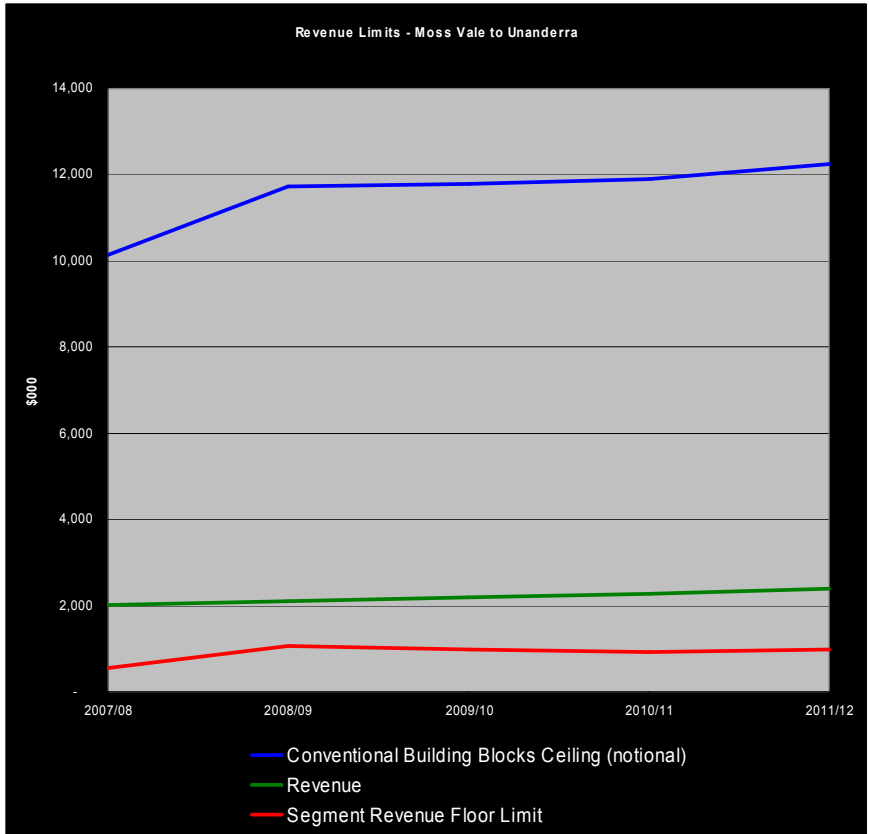












## Excess Network Occupancy component of Charges (ENOC)

### Objective

ARTC is seeking to identify relative consumption of capacity by usage outside of standard path prescription, and to better match this with relativity in pricing.

ARTC's objective is to encourage efficient utilisation and rationing of Network capacity, so as to provide better signals for future investment in Network capacity.

ARTC recognises that in order to meet end market or above rail operational requirements, an Applicant or Customer may seek to incorporate time in the schedule for a Train Path that is in excess of a reasonable and normal allowance for above rail activities required to operate Trains.

Additional time occupying the Network consumes greater Capacity. In order to better reflect, in pricing, the consumption of Capacity on the Network of Train Paths designed to meet an Applicant's specific needs by taking more time than a normal allowance for above rail activities, an excess operator occupancy component is proposed to be included in the Indicative Access Charge.

### Application

The excess occupancy component that may be applied to a Train Path will be charged on the basis of any hour (or part thereof) of time allowed in the schedule for the Train Path in excess of:

- Section run times for the applicable flagfall category
- Dwells for crossing and passing other Trains, and,
- A specified allowance for reasonable above rail operating requirements.

The excess network occupancy component of pricing will be applied to a scheduled path only (irrespective of whether the path is used). It does not relate to actual usage of the path.

Effectively, the 'base transit time' (to which the flagfall charge applies) =

Section run times for the applicable flagfall category  
plus Dwells for crossing/passing other trains

plus A specified corridor allowance for above reasonable above-rail activities

Corridor allowances for reasonable above-rail activities have been determined following review of existing allowances in schedules for normal activities such as crew changing, loco fuelling etc.

The excess network occupancy component of pricing only applies to operator requests for excess time on the network eg time in excess of standard section run times and time in excess of specified above-rail allowances. Time on the network includes time on the mainline or in loops, all of which impact on capacity. It does relate to time spent off the network.

Application of the excess network occupancy component of pricing does not relate to schedules with excessive transit times due to unavailability of a better path.

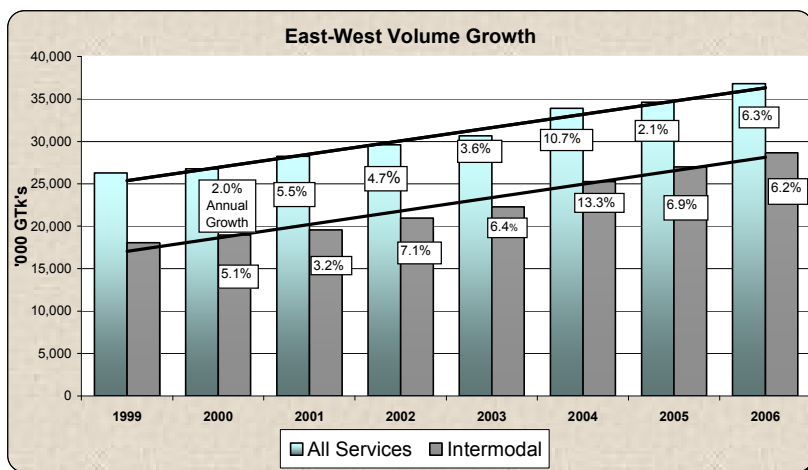
Attachment C

## ARTC Review of Indicative Access Charges

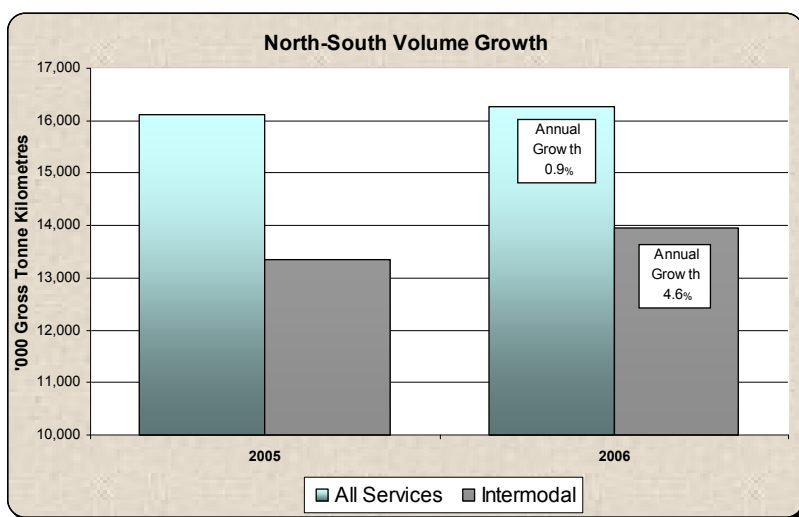
### Background

ARTC has undertaken significant work to understand the dynamics of pricing and likely impacts of changes on intermodal and other traffics on the interstate network.

### Market Growth



Intermodal (and other) markets have performed strongly over the past 8 years, with consistent year on year growth in East-West volume.





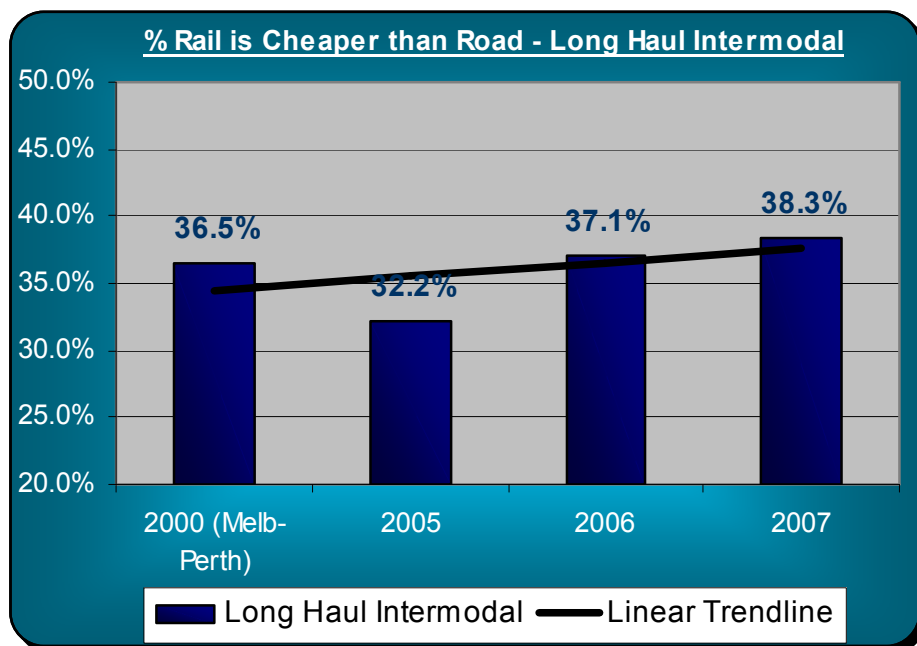
During the first 2 full calendar years of ARTC management on the North-South corridor, total annual growth has been modest, and intermodal growth on this corridor was 4.6% over the last 12 months.

### Freight Market Pricing Research

ARTC has reviewed the reflective competitive pricing position that exists between road and rail. Noted specifically is the relative position in the current long haul intermodal markets that are normally associated with the East-West corridors. The chart below highlights the current relative position in intermodal markets.

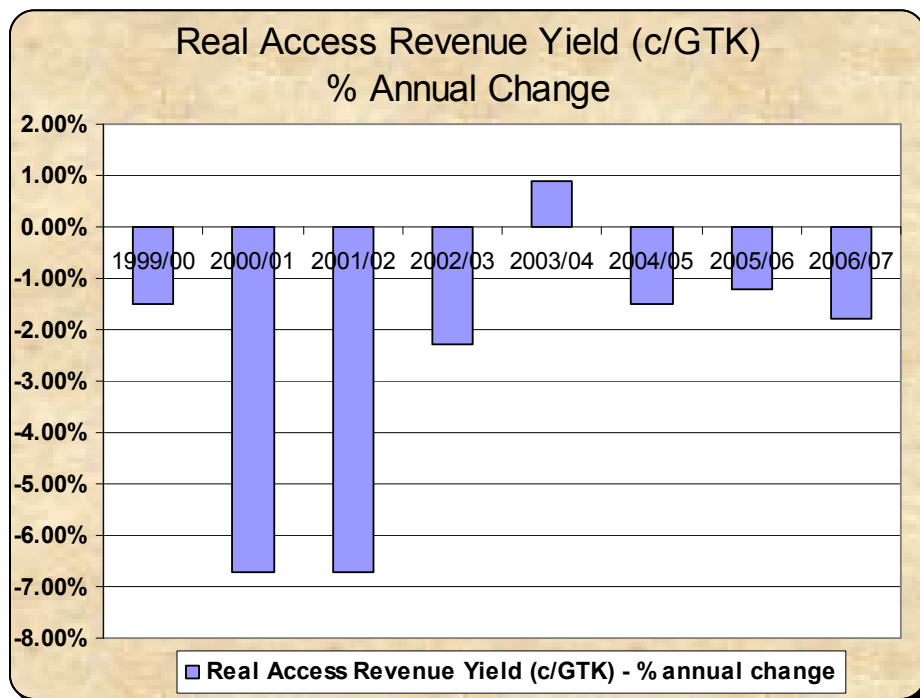
Route	Road/Rail Difference (c/ntk)	
	2005/06	2006/07
<b>Short haul intermodal</b> Melbourne - Sydney, Melbourne - Adelaide, Sydney - Brisbane	Road cheaper 0.33 c/ntk (4.8%)	Road cheaper 0.35 c/ntk (4.8%)
<b>Medium haul intermodal</b> Melbourne - Brisbane, Sydney - Adelaide	Rail cheaper 0.34 c/ntk (10.1%)	Rail cheaper 0.50 c/ntk (13.7%)
<b>Long haul intermodal</b> Brisbane - Adelaide, Adelaide - Perth, Melbourne - Perth, Brisbane - Perth, Sydney - Perth	Rail cheaper 1.99 c/ntk (37.1%)	Rail cheaper 2.25 c/ntk (38.3%)

Rail is significantly cheaper than road on long-haul intermodal markets, and has been so for some time.



**Real ARTC Access Revenue Yield Changes – East-West\***

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07 YTD
Access Revenue Yield (c/GTK) - % annual change		0.1%	-3.8%	-3.4%	+0.3%	+2.9%	+1.1%	+1.6%	+1.5%
CPI Index **	121.9	124.1	127.6	131.6	135.6	138.8	142.4	146.4	151.2
Access Revenue Yield (c/GTK) – real % annual change		-1.5%	-6.7%	-6.7%	-2.3%	+0.9%	-1.5%	-1.2%	-1.8%



\* East West is ARTC’s WA, SA and Victoria network.  
\*\* CPI All Groups 8 capital cities as at December, excludes GST effect.

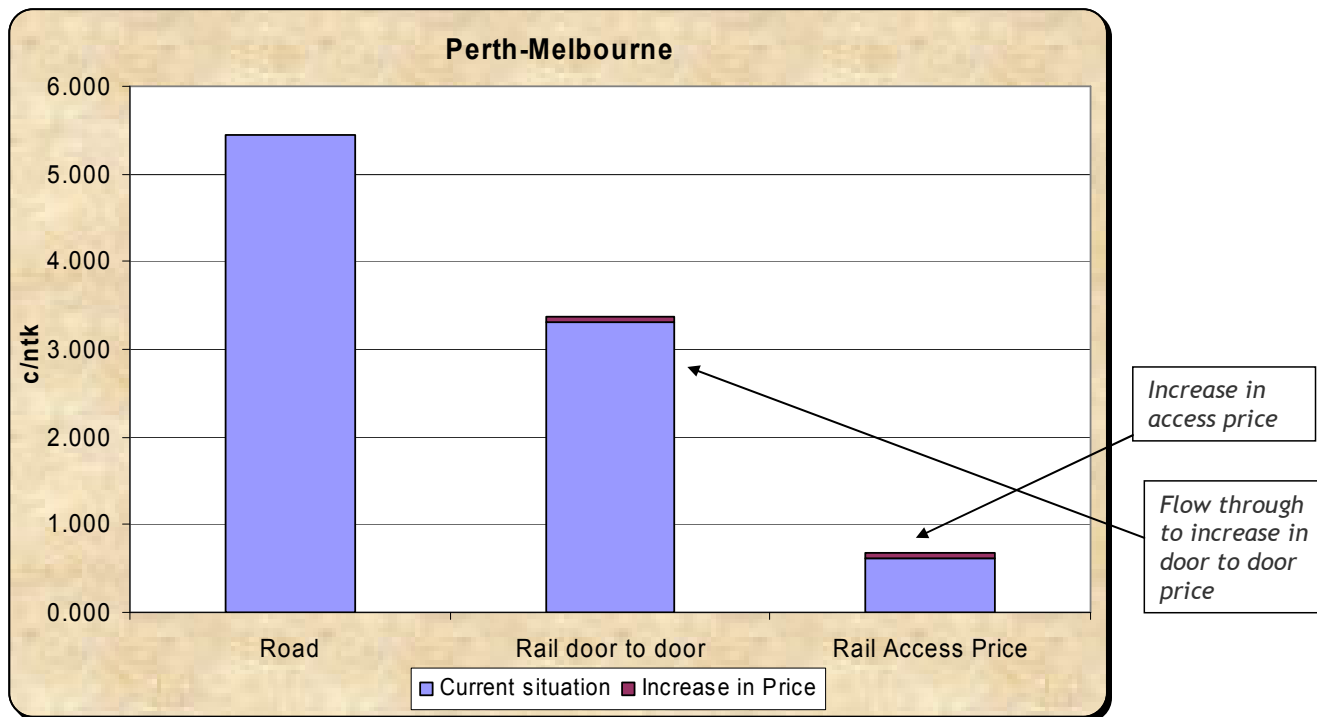
The % change in ARTC’s real access revenue yield has been negative for 7 of the last 8 years. ARTC is not generating sufficient access revenue to sustain its asset base in the long run.

**Analysis of ARTC’s Research**

ARTC needs to recover effective yield, especially East-West. Analysis suggests that a 10% increase in ARTC East-West Intermodal Access price results in a PUD freight price (“end user price”) increase of only approximately 1-2%. This is because access cost represents only a small percentage (approximately 10-20%) of end user pricing East-West.

A 10% increase in access price on East-West long haul would have minimal impact on rails competitive position against road.

The graph below demonstrates the competitive impact of a 10% access price increase on the Perth-Melbourne intermodal corridor.

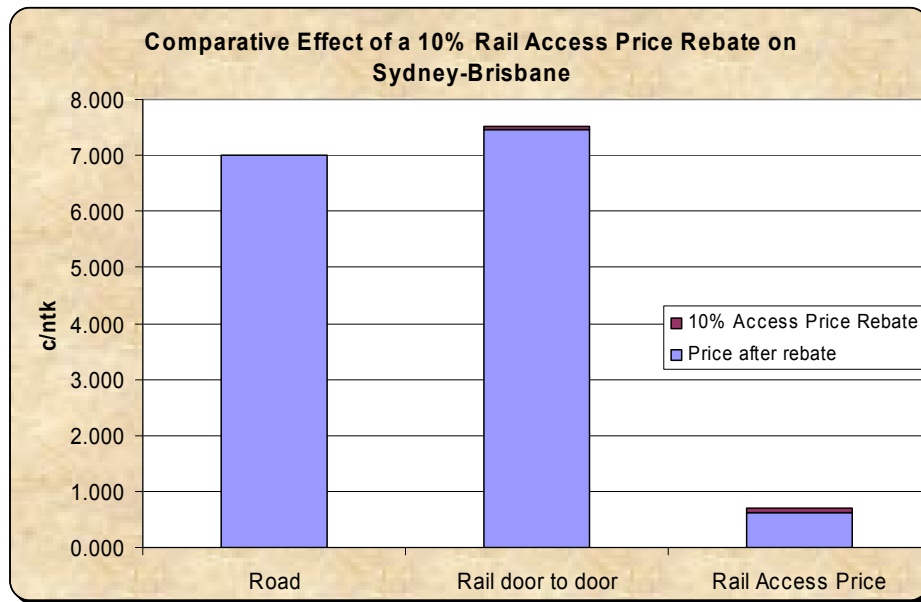
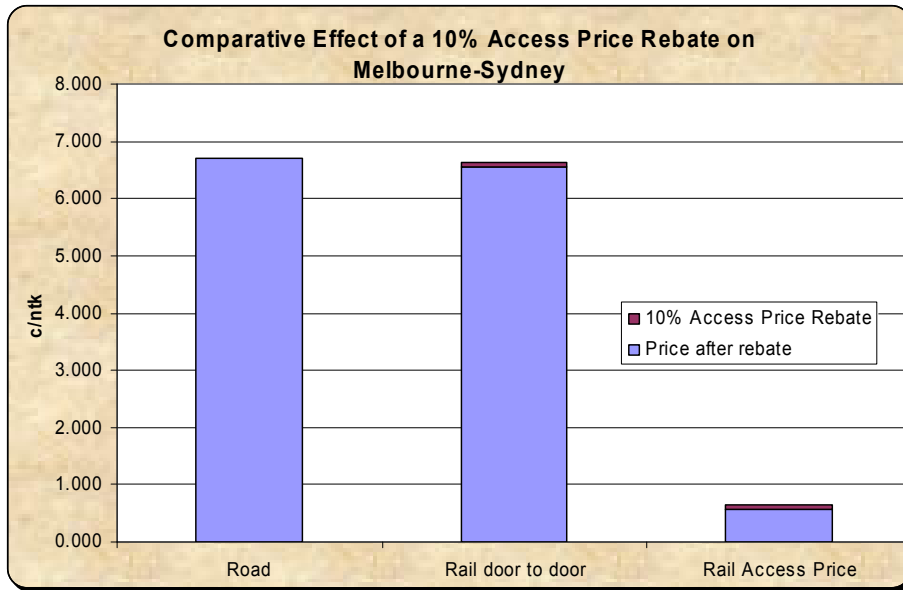


### North-South Corridor

Earlier analysis highlighted that road pricing was relatively cheaper than rail on East coast short haul legs.

ARTC analysed the impact of a 10% rebate for 2007/08 and 2008/09 on North-South intermodal traffic (that is, for the period while finishing North-South works).

Although a 10% rebate will only flow through to a small decrease in rail door to door cost (as per the graphs on the following page), it will improve rails competitive position during the period of the ARTC investment program. Upon completion of the works program, operators will then have the benefit of 8% productivity improvements.



Assuming the 10% access price rebate is passed on to the market, rail door to door pricing will decrease and rails competitive position will improve.

Attachment D

## Mechanism for periodic variation of the Indicative Access Charge

### Application

ARTC is seeking to cap Indicative Access Charges to the change in CPI over the term of the access undertaking. ARTC is seeking to increase flexibility in indicative access price variability to better reflect market conditions. The existing mechanism means that any opportunity to increase pricing that is foregone (for any reason) cannot be recovered, impacting longer term sustainability.

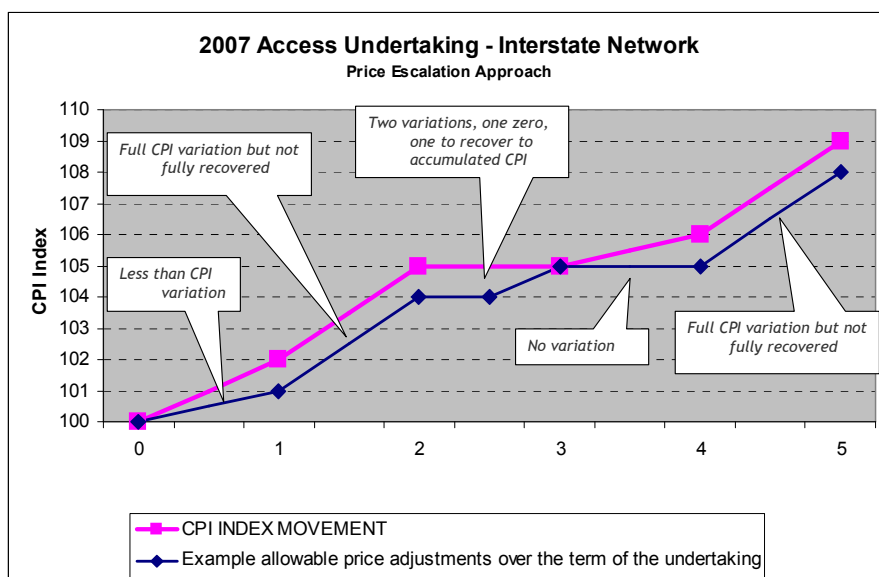
The proposed mechanism allows greater flexibility in pricing variation:

- Ability to increase pricing more than once in any year, to better match changing market and service circumstances.
- Ability to recover foregone price increases at subsequent times

However, the mechanism still provides certainty that indicative access prices will not increase by more than the change in CPI over the term of the undertaking, nor by more than CPI accumulated to any point during the term of the undertaking\*. Pricing cannot increase where inflation is negative, except to recover prior CPI shortfall. ARTC is seeking to identify relative consumption of capacity by usage outside of standard path prescription, and to better match this with relativity in pricing.

\*Although in the unlikely circumstance of negative inflation, cumulative price variation can exceed CPI for a short, but unsustainable period.

### Illustration



## Indicative Access Agreement – Indemnity and Insurance

**Clause 15 (indemnities)** has been redrafted to simplify the previous clause 15, and to provide clarity. It is ARTC's view that the revised clause 15 will decrease the need for argument over interpretation.

New clause 15 reflects the following 3 principles:

- Where ARTC or the Operator breach the agreement, and that breach is the sole cause of the Incident, then the party in breach is responsible for its own loss and fully indemnifies the other party.
- Where ARTC or the Operator breach the agreement and the breach is not the sole cause of the Incident, but contributes to the Incident, then the party in breach indemnifies the other party to the extent that the breach contributed to the Incident, and each party is otherwise responsible for its own loss.
- Where both parties breach the agreement, and the breaches both contribute to the Incident, the parties end up bearing their loss and the loss of the other party in the proportions that their breach has been a contributing factor.

A new clause 15.8 has been inserted. This sets out that an indemnified party must give the responsible (ie. indemnifying) party written details of a claim, and the responsible party must pay the claim within 14 days of being required to pay.

The rest of clause 15 reflects the content of previous clause 15, but has been redrafted to provide clarity. The main change relates to the fact that a party cannot make a claim against the other if the damage is worth less than \$50,000 ('a Prohibited Claim'). In previous clause 15, a Prohibited Claim can be made if the total value of all claims during the year (including the present claim and all Prohibited Claims) exceeds \$500,000. Clause 15 now says that a Prohibited Claim can be made if the total value of other Prohibited Claims during the year exceeds \$250,000.

**Clause 16 (insurance)** has been amended, again, to provide clarity. New clause 16 provides additional detail about the types of risks both parties must insure for. The level of cover has been raised from \$200,000,000 to \$250,000,000 to reflect requirements in NSW. The only other significant changes are that the Operator must seek the consent of ARTC to the Operator's proposed insurer, and there are acknowledgements by the Operator that the insurance obligations do not absolve the Operator from assessing its own insurance requirements.

## Capital Expenditure

### Project Detail

ARTC has commenced a major works program totalling around \$2.6bn on its network. Of this, investment in the Network (subject to the 2007 ARTC Interstate Undertaking) in the period 2006-07 to 2011-12 is estimated at around \$1.6bn. This investment comprises the Capital Expenditure estimated in Schedule H for the purposes of the 2007 ARTC Interstate Undertaking. It should be noted that whilst ARTC has used best endeavours to forecast investment scope and cost, these can change over a five year period with changing market conditions effecting project scope and cost. As such, it is necessary for ARTC to qualify its estimates in this regard not withstanding variations that may arise due to changes explicitly recognised in the definition of Capital Expenditure in the 2007 ARTC Interstate Access Undertaking.

ARTC's investment program has been developed in order to deliver network capacity and performance outcomes will enable rail to significantly increase modal share on north-south corridors and maintain volumes on east-west corridors. ARTC is very reliant on predicted modal share outcomes being realised in order to achieve returns from the investment. ARTC and its shareholders are bearing market risk associated with the investment program. As such, ARTC has a commercial incentive to mitigate this risk as best as possible.

To do this, it is in ARTC's interests to ensure that the investment is undertaken prudently. It seeks to do this by adopting an approach to the development and implementation of its investment program that ensures that the investment:

- is needed to meet market demand for capacity and performance of the Network, or needed to extend the economic life of Network;
- results from what is considered to represent an efficient means to achieve that demand or extend that economic life;
- is incurred efficiently in implementing the capital or renewals project, in the context of prevailing access and operating requirements, and input costs.
- is related to a capital or renewals project by ARTC that is supported by the industry.

Ensuring that the above characteristics are achieved is consistent with prudent investment in the Network, given its commercial and operating circumstances, and demands significant consultation with, contribution from, and the support of, the industry.

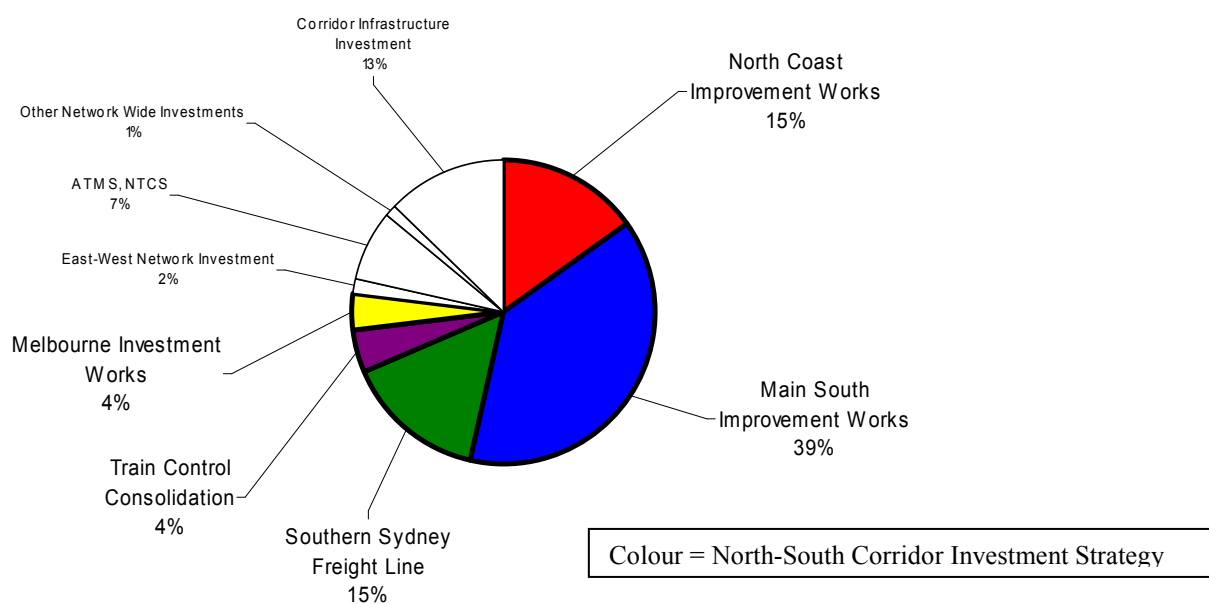
A significant component of the investment program estimated at Schedule H relates to ARTC's North-South Corridor Investment Strategy (\$1.23bn). Further detail in relation to the projects, consultation, development and implementation of this strategy is provided below.

Other key projects forming part of ARTC's investment program on the Network over the period include:

- Train Control Consolidation (TCC) - \$70m – apportioned to the Network
- National Train Communications Systems (NTCS) and Automated Train management System (ATMS) - \$117m – apportioned to the Network
- Other Investments on the East-West and Other Corridors - \$157m

Further detail in relation to these projects, consultation, development and implementation of these strategies is provided below.

Figure 1 shows a breakdown of Capital Expenditure to broad strategy/project level.



## ARTC's North-South Corridor Investment Strategy

The North-South investment strategy aims to deliver reduced transit time, increased reliability, increased capacity and reduced above rail operating costs. Key projects to deliver this are:

### Melbourne – Sydney

*Concrete sleepers of the entire ARTC track between Melbourne and Sydney.* This will allow increased train speeds, reduce the incidence of temporary speed restrictions and delays due to track work, and eliminate speed restrictions imposed on high temperature days.



**Southern Sydney Freight Line.** This will provide a freight track independent of the Sydney commuter lines between Chullora and Macarthur in Sydney's south. This will remove the current 'curfew' on freight trains operating in the metropolitan area during the morning and afternoon peak periods.

**Automatic signalling.** This program will eliminate the last few sections that use a 19th century signalling system that requires signallers to manually admit trains to a section of track. The project will significantly raise capacity and reduce costs.

**Overtaking loop on double track at Harden.** This loop, which will be installed in conjunction with the signalling upgrade, will allow fast trains to overtake slower trains, increasing capacity and reliability.

**Passing lanes Junee - Melbourne.** Passing lanes are sections of double track 6.8 km long that allow trains to pass each other without stopping. This project will significantly increase capacity and reduce transit time.

**Tottenham triangle.** The Tottenham triangle will provide a direct connection between the North-South and East-West corridors, eliminating the need for trains to reverse at Tottenham. This will reduce costs for through traffic and open-up options to use terminals other than the main Dynon terminal in Melbourne.

**Tottenham - Dynon Upgrade.** This Auslink funded project will significantly enhance capacity through this complex and congested dual gauge section that is the throat to Melbourne's Port area and the main rail freight terminal.

**Replacement of Murrumbidgee River Bridge, Wagga Wagga.** This project will replace a life expired bridge with severe speed and axle load limits, thereby reducing transit time.



## Sydney – Brisbane

*Concrete sleepers between Sydney and the Queensland border.*

*An approximate doubling of the number of long passing loops on the North Coast. This creates significant additional capacity, reduces transit time and increases reliability.*

*Installation of CTC signalling between Casino and Acacia Ridge. This will eliminate a 19th century signalling system that requires every train to stop at passing loops to exchange a metal token that gives it permission to be on a section of track. This will save over half an hour of transit time and reduce costs from repeated train stopping.*

*Loop upgrades between Newcastle and Acacia Ridge. The upgrade program will eliminate a number of track and signalling configuration issues that cause unnecessary delays when trains enter and leave existing long passing loops.*



## ARTC's North-South Corridor Investment Strategy Development & Consultation

The ARTC investment strategy originated with the “Interstate Audit”, which was completed in early 2001. This project was initiated by ARTC to identify the optimised scope of investment for the defined interstate rail network (DIRN). The Interstate Audit process included a working committee to guide the work of the consultants, Booz Allan and Hamilton. This committee included representatives of ARTC, operators and the Australian Government.

The outcomes of the Interstate Audit were adopted as the starting point for the investment program associated with the NSW lease proposal. This proposal was formally presented to the NSW Government in June 2002. It may have been initiated by NSW.) This investment program was worth \$872 million including complementary investment on the Melbourne – Albury corridor.

Following the commencement of the NSW Lease in September 2004, ARTC undertook a full review of the North-South Investment Program. The purpose of this review was to identify any changes that may have been appropriate given that three years had elapsed since the original investment strategy was developed, and to incorporate into the scope of works additional projects made possible by a gift of \$450 million from the Commonwealth in June 2004.

This review commenced through the development of a discussion paper on the issues and opportunities for the North-South corridor. This discussion paper was provided to operators for comment in mid-November 2004.

Formal meetings to discuss the paper, and progress with revising the strategy generally, were then held with all major freight operators late 2004/early 2005. These meetings were in addition to discussions held in regular meetings between Senior Executives of ARTC and the rail operators.

Pacific National provided a formal response to the discussion paper in late 2004.

A North-South Strategy Paper, Version 1, was released for public comment in February 2005. This document was posted on the ARTC internet site and brought to the attention of the major rail operators.

Further specific meetings were held with Pacific National regarding the strategy in April and May 2005.

Version 2 of the North-South Strategy Paper was released in May 2005. This was again brought to the attention of major rail operators and public comments were welcomed. A briefing on the strategy was provided for the rail industry on late May 2005, with over 500 people attending. All papers presented at the briefing were made available on the internet.

Pacific National provided a formal response, including broad endorsement of the strategy, in July 2005.

### Project Delivery through Alliance Structures

There are various delivery methods that ARTC could have adopted for the North-South Strategy projects.

ARTC considered that the traditional lump sum contract, which transfers most of the risk to the contractor, was the best method where scope was clear and the circumstances and risks were reasonably predictable.

However, it considered that the North-South investment program needed to be delivered in the shortest reasonable timeframe. This inevitably created an environment of uncertainty, driven by diverse stakeholder interests and shifting business imperatives. It considered that the lump sum contract was inadequate to deal with these circumstances.

Accordingly, ARTC decided to primarily deliver the works through the more flexible “Alliance’ delivery model, which had already proven highly successful for contracting-out of maintenance work on the Victorian, South Australian and Western Australian parts of the network.

Under the alliance framework, ARTC and the contractor work as an integrated team to deliver the project under a contractual framework where each party’s commercial interests are aligned with actual project outcomes. This flexibility enables the fast tracking of projects and introduces economies of scale so that specialised plant and equipment and high demand skills can be effectively deployed across competing projects.

The full range of benefits of the alliance approach can be summarised as:

- ARTC management team is enhanced with experienced delivery personnel working essentially as one organisation.
- ARTC and the contractor can align activities and objectives and work together with a win/win philosophy.
- The contractor is involved in long term delivery planning, with long term reward sharing, giving a strong incentive for efficiency.
- Delivery risk for ARTC is lowered through joint management of time, cost and operational issues.
- Areas of conflict are limited to target fee estimates and KPI establishment. Extras, scope changes and variations do not become contractual disputes, or subject to price negotiation.
- Alliances are quick to establish and get works underway. They work effectively in a situation where there is variable or changing activity as a broad work scope only is necessary to be defined to commence works.
- Work can be mobilised on many fronts with minimal contractual problems.

Work on the North-South Strategy projects is now underway across a wide number of fronts and the Alliance approach is fulfilling its expectations. Works have commenced efficiently, competing resources are being managed across a wide range of projects and the Alliance management structures are allowing a better understanding of costs, and quicker response to issues, than could be expected with a lump sum contract.

ARTC considers that this approach undertaken through a competitive tender process will deliver efficient and timely delivery of the investments.

### **Train Control Consolidation (TCC)**

Train control consolidation is an integrated series of physical projects and work process changes designed to significantly improve train control delivery.

The train control consolidation project aims to:

- Eliminate manned signal boxes.
- Consolidate NSW train control to just two locations, Broadmeadow and Junee.
- Improve safety by having direct communication between network control and trains, and between infrastructure workers and network control.
- Eliminate double-handling of rail segment management by giving a network controller direct control of all parts of a rail segment.
- Reform work practices in the signalling and train control area.
- Improve the efficiency and effectiveness of train management, and communications between train control and train crew.
- Increase reliability through the replacement of outdated equipment and technology.
- Reduce the ongoing cost of service provision.
- Key physical projects includes the replacement of manual block working with automatic block working on two sections of the Main South, closure of signal boxes controlling yards at 10 locations, and the upgrade of the two key train control centres to Network management Centres.



## National Train Communications Systems (NTCS)

The national rail network has inherited a legacy system that varies significantly between states creating a technological “break-of-gauge”. ARTC, in conjunction with industry stakeholders, is introducing a common system for train to train control, train to train, and train to ground, communications.

The new national train communication system is designed to replace the disparate systems with a single integrated voice and data communication network. The system is being built to complement the Telstra 3G network. The main works consist of the construction of an additional 77 base stations to infill areas not currently covered by the Telstra network; design and manufacture of 700 in-cab kits; inclusion of a transparent satellite module, and integration of the various component packages.

Key benefits of the new system will be:

- A single network-wide communications platform eliminating operational complexities.
- Rationalisation of the many frequencies currently used across the network, with a single frequency for train to control; train to train; train to ground communications, emergency calls and pre-emption.

- Reduced infrastructure by replacing rail system owned infrastructure with common carrier infrastructure.
- The capability to support the next generation of data centric train control technology.
- Precise knowledge of train locations through GPS functionality, increasing efficiency.

### **Automated Train Management System (ATMS)**

Predictions are that the various existing signalling systems inherited by ARTC will need replacement, commencing within the next 7-10 years. In addition, network capacity will need to increase significantly to handle forecast growth in the national freight transport task over the next 20 years. An upgrade of the existing signalling systems using contemporary technology will be expensive and result in a continuation of the operating paradigm. The 'like for like' replacement of signalling systems will not improve the industry's ability to meet the future forecast freight task.

ATMS represents an opportunity to replace dated and predominantly life-expired train control systems with a modern appropriate technology, the benefits of which include:

- An ability to create new saleable capacity on the same single-track rail network as a result of being able to run trains on closer headways;
- A lower cost of ownership (versus the life cycle costs associated with the current "field based" signalling systems);
- A more productive, competitive rail environment;
- An improved ability for rail to contend with its future share of the predicted freight transport task;
- Improved safety as a result of being able to generate and transmit electronic train authorities (from a central computer to a computer on-board a locomotive) thereby eliminating the need for train crews to transcribe train orders and/or drive by way of line side signals; and
- Intervention in the event that a train is at risk of exceeding its limit of authority.

Train operators, track owners and other stakeholders have been involved in the "blue-print process". In the next phase of the project, ARTC intends to commission Lockheed Martin to develop a prototype of the ATMS concept.

## Investments on the East-West Corridor

ARTC continues to progress a small number of projects on the East-West corridor. These investments include projects designed to increase path capacity and transit times including:

- 6500 mm height clearance. Increasing the height clearance for trains to 6500 mm will allow a larger range of double-stacked container combinations to be carried. This will allow operators to carry “cubic” freight more efficiently. This project was initially developed in conjunction with the NSW Lease Business Case. Both freight operators on the east-west corridor strongly support this project and continue to press ARTC for it to be delivered.
- Passing loop extensions for 1800 metre trains at Kinalung and Matakana have increased capacity and reduced transit times between Parkes and Crystal Brook. These extensions complement new loops also recently completed at Haig, Mungala, Winninowie, Mingary and Port Germain on the Adelaide - Perth corridor.
- ARTC’s innovative ICAPS technology has been rolled out across the Port Augusta - Kalgoorlie corridor. ICAPS allows train drivers to remotely change turnouts at passing loops. This removes the need to bring the train to a stop to operate a push-button to change the points, reducing transit time and fuel consumption. As such the system was designed and rolled-out as a joint project with rail operators.







## ARTC's annual corridor investment program

The expenditure includes planned capital works as part of a strategy to achieve corporate objectives or to reduce ongoing maintenance costs. The projects undertaken are targeted to increase the useful life of the asset and or to improve the capacity of the Network. The types of activities that ARTC records in its corridor investment program include:

- Rerailing
- Resleepering
- Turnout renewal
- Structures replacements
- Signalling upgrades