Final Decision

Revised access arrangement by APT Petroleum Pipelines Ltd for the Roma to Brisbane Pipeline

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Commissioners

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Contents

Abbreviations and glossary

AA	Access arrangement
AAI	Access arrangement information
ACCC	Australian Competition and Consumer Commission
ACG	Allen Consulting Group
ACIL Tasman	ACIL Tasman Pty Ltd
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
Agility	Agility Management Pty Limited
AGL	The Australian Gas Light Company
APA	APA is the Stock Exchange Code of APT, APTPPL's parent company
APL	Associated Pipelines Limited
APT	Australian Pipeline Trust
APTPPL	APT Petroleum Pipelines Limited
AS	Australian Standard
bppa	Basis points per annum
CAPM	Capital asset pricing model
code	National Third Party Access Code for Natural Gas Pipeline Systems
CPI	Consumer price index
CRA	CRA International
CSM	Coal seam methane
CWP	Central West Pipeline
DAC	Depreciated actual cost
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DORC	Depreciated optimised replacement cost
EAPL	East Australian Pipeline Limited
Energex	Includes Sun Retail Pty Ltd

ERA	Economic Regulation Authority (Western Australia)
ESC	Essential Services Commission (Victoria)
FRC	Full retail contestability
GJ	Gigajoule (1 000 000 000 joules)
GMLG	Gas Market Leaders Group
HNE	Hypothetical New Entrant
HNET	Hypothetical New Entrant Test
ICB	Initial capital base
ICRC	Independent Competition and Regulatory Commission
IOL	IOL Petroleum Limited
IPART	Independent Pricing and Regulatory Tribunal (New South Wales)
IPO	Initial public offer
IRR	Internal rate of return
IRS	Infrastructure and Regulation Services
KPI	Key performance indicators
m	million
MAOP	Maximum allowable operating pressure
MCE	Ministerial Council on Energy
MDQ	Maximum daily quantity
MHQ	Maximum hourly quantity
MMA	McLennan Magasanik Associates Pty Ltd
MRP	Market risk premium
MSP	Moomba to Sydney Pipeline
NCC	National Competition Council
NERA	NERA Economic Consulting
NEMMCO	National Electricity Market Management Company
NFI	New facilities investment

NPV	Net present value
Origin	Origin Energy
PJ	Petajoule (equal to 1 000 000 Gigajoules)
PMA	Pipeline Management Agreement
PMSA	Pipeline Management Supplementary Agreement
PNG	Papua New Guinea
QCA	Queensland Competition Authority
QGC	Queensland Gas Corporation
QGP	Queensland Gas Pipeline
RBP	Roma to Brisbane Pipeline
Sleeman	Sleeman Consulting
SRP	Statement of regulatory principles
SWQP	South West Queensland Pipeline
TJ	Terajoules (equal to 1 000 Gigajoules)
TNSP	Transmission network service provider
Venton	Venton and Associates Pty Ltd
WACC	Weighted average cost of capital

Summary

Introduction

On 31 January 2006 APT Petroleum Pipelines Limited (APTPPL) lodged revisions to its access arrangement for the Roma to Brisbane Pipeline (RBP) with the Australian Competition and Consumer Commission (ACCC) for approval. This is the first scheduled review of the access arrangement for the RBP under the National Third Party Access Code for Natural Gas Pipeline Systems (the code).

This assessment is the first full assessment by the ACCC of the access arrangement for the RBP under the code. The previous ACCC assessment, for the period 1 October 2002 to 28 July 2006, covered only non-tariff elements of the access arrangement. Tariffs for the pipeline have been established by the Queensland Minister under a derogation which was scheduled to end on 28 July 2006. However, as the ACCC has extended the period for assessing and approving the revisions, these tariffs will continue until the revised access arrangement comes into effect. The ACCC's task is to determine whether the proposed access arrangement, as revised, satisfies the requirements of the code.

The ACCC proposed in its draft decision of 23 August 2006 not to approve the revisions submitted by APTPPL and proposed 22 amendments to be made to the revised access arrangement and requested submissions by APTPPL and other interested parties on the draft decision.

APTPPL was the only party that responded to the draft decision. It lodged submissions, two consultant reports and an amended revised access arrangement which incorporated or otherwise addressed the intent of some of the amendments. It did not incorporate other amendments, including those with respect to key revenue and tariff components such as the initial capital base, the weighted average cost of capital (WACC) and non-capital costs. Three users subsequently lodged submissions specifically addressing the approach to be taken with respect to contributions they had made in support of expansions to the capacity of the RBP.

The ACCC has concluded that APTPPL's amended revised access arrangement does not comply with relevant provisions of the code and so has made a final decision not to approve it and to set out the amendments needed to be made for approval.

After considering APTPPL's response to this final decision, the ACCC must make a further final decision to accept or reject the proposed revisions. If the ACCC does not accept the amended revisions it must draft and approve its own revised access arrangement.

This summary and the table below entitled 'Final decision at a glance' are a summary only of the key issues contained in the final decision and do not constitute part of the ACCC's reasons for its final decision. The reasons for the ACCC's final decision are detailed in full in the final decision document.

Final decision

After considering APTPPL's proposals, submissions by interested parties and APTPPL's response to the draft decision, the ACCC has decided not to approve the proposed revisions to APTPPL's access arrangement. This final decision sets out the amendments (or nature of the amendments) which are necessary for the proposed access arrangement to be approved.

A summary of the final decision is outlined in the table below. Following is a brief discussion of the key issues.

Table: Final decision at a glance

Elements	APTPPL's proposal	ACCC's final decision
Tariff methodology, tariff path and forecast revenue, depreciation, cost allocation and tariff setting	NPV methodology and a price path approach. Single zone tariff. Constant real tariff for the 5 year AA period. Increasing real tariff post 2011, using CPI–X where X = - 0.8227). Negative depreciation for first 17 years including the AA period and back-end loaded over remaining life. Maximum daily capacity charge: $0.4243/GJ/MDQ/day Throughput charge: $0.0283/GJ. Total revenue: $32m - $33m p.a.	Accept NPV approach but rejected the application of the methodology. Accept the single zone tariff. The proposed tariff is: Capacity charge: $0.3819/GJ/MDQ/day Throughput charge: $0.0255/GJ Starting tariff is 10% lower than proposed starting tariff. The decreasing real tariff (CPI–X where X = +0.79), in part reflects the proposed changes to the ICB, rate of return and operating costs. Total revenue: approximately $28m p.a.
Depreciated optimised replacement cost (DORC)	$342.6m ('NPV DORC' methodology). In response to the draft decision, APTPPL proposed a revised NPV DORC methodology which uses an ORC for the existing pipeline, and results in $345.7m.	$170.6m (NPV DORC methodology) Differences in NPV DORC estimates are due to differences in assumptions regarding the discount rate, asset lives, tax position and cost estimates. $296.41m (straight line methodology) The ACCC used straight line DORC which requires the use of existing capacity in determining the ORC. The use of an existing capacity ORC for NPV DORC is inappropriate.
Initial capital base (ICB)	$342.6m Equal to APTPPL's DORC calculation. In response to the draft decision, APTPPL proposed $345.7m being its revised NPV DORC calculation.	$251.11m Straight line DORC less expansions funded by users through users' contributions.
New facilities investment	Forecast capital expenditure includes items such as 'stay in business' capital, compressor overhauls and pigging,	Accept APTPPL's forecast capital expenditure. APTPPL's proposed new facilities investment policy is appropriate

Elements	APTPPL's proposal	ACCC's final decision
	ranging from $1—$4m p.a. No expansions or extensions are included in APTPPL's forecast capital expenditure.	for the RBP access arrangement.
Rate of return	Pre-tax real WACC: 6.9% Post-tax nominal return on equity: 9.43%—12.63% (No specific figure provided, only a range) In response to the draft decision, APTPPL proposed a pre-tax real WACC of 6.25% (applying the effective tax rate) or alternatively 6.90% applying the 30% tax rate.	Pre-tax real WACC: 5.86% Post-tax nominal return on equity: 11.70%
Non-capital costs	$9.3m in 2006/07 reducing to $9.18m in 2010/11.	$8.31m in 2006/07 reducing to $8.14m in 2010/11. The Agility management fee and self-insurance costs are excluded.
Forecast volumes	For the reference tariff, 56.5 PJ/pa in 2006/07 rising to 58.4 PJ/pa in 2010/11 and static thereafter, reflecting APTPPL's proposal that the reference tariff should only apply to existing pipeline capacity. In calculating its NPV DORC APTPPL has taken into account growth in the market and attendant capital costs to meet that growth. In response to the draft decision, APTPPL removed expected growth from its calculation of NPV DORC.	Accept the forecast volumes for the reference tariff. Accept the forecast volumes including growth as input to the NPV DORC.
Incentive structure	APTPPL retains any gains from outperforming forecasts and bears the risk of under performance.	Accept incentive mechanism in relation to costs and volumes. Accept proposal that any revenue APTPPL receives from negotiated services is additional to that needed to recover the cost of providing services using the existing capacity.
Services policy	For existing capacity (nominal licence capacity is 180 TJ/day): one reference service; firm forward haul. Other services are negotiable. For expansions and extensions: only a negotiated service will apply.	Accept APTPPL's proposal. Where prospective users are unable to agree to terms with a service provider on the supply of negotiated services they are able to invoke the dispute resolution provisions of chapter 6 of the code.
Extensions and expansions policy	APTPPL will elect after consultation with the ACCC whether an extension will be part of the covered pipeline. Expansions will be covered unless APTPPL proposes and the ACCC accepts that an expansion should not be covered. Tariffs for extensions and expansions that are covered will be negotiated.	Accept APTPPL's proposal.

Elements	APTPPL's proposal	ACCC's final decision
Trading policy	Bare transfers do not need APTPPL's consent. Other transfers, including changing receipt or delivery points, require consent, which will only be withheld on reasonable commercial and technical grounds. In response to the draft decision, APTPPL amended its trading policy to specify what constitutes 'reasonable commercial and technical grounds'.	APTPPL will establish electronic access to its register of spare and developable capacity and will consider establishing an electronic bulletin board to facilitate capacity trading.
Queuing policy	If capacity is insufficient to meet prospective users' requests for access a queue will be formed. Requests for the reference service have priority. Provision for investigations to determine whether capacity is, or can be made, available. Prospective users bear the costs of the investigation. In response to the draft decision, APTPPL agreed to provide some indication to prospective users of a range of possible tariffs for new capacity, to provide a written report containing certain information to prospective users who bear the costs of capacity investigation and to permit prospective users to transfer their right in a queue to other prospective users.	Separate queues for existing and new capacity.
Review of access arrangement	APTPPL initially proposed a revisions submission date of 30/11/10 and a revisions commencement date of 1/7/11. It did not include any major events trigger. In response to the draft decision, APTPPL proposed revised timing consistent with a five year access arrangement period and a six month approval process.	Accept APTPPL's proposals.

Key issues

Initial capital base

The initial capital base (ICB) of the pipeline is the most significant determinant of the pipeline's tariff. The code requires the regulator to balance the interests of the pipeline owner and users when approving the ICB. This requires that consideration be given to the actual costs of developing the current pipeline and the efficient replacement costs of the pipeline and to a number of other matters. In view of the history of the RBP (the age of the pipeline, its progressive looping over time) an ICB based on replacement costs rather than historical costs was given greater weight in establishing the ICB. At the same time consideration was given to the role users have played in funding the development of the pipeline in setting the RBP's ICB under the code.

APTPPL has proposed that the ICB should be set according to the depreciated optimised replacement cost (DORC) methodology, the approach generally viewed as producing the maximum ICB normally allowed under the code. APTPPL prefers to use the NPV DORC approach (the net present value of the difference in estimated costs of the existing pipeline and a replacement pipeline) over the straight line approach. Subsequent to the draft decision, APTPPL has modified the NPV DORC approach by removing the costs of increasing the capacity of the current pipeline and by estimating the ORC on the basis of existing capacity. The ACCC has decided to calculate DORC according to the straight line approach as it is not satisfied that the application of the NPV DORC approach, either as proposed originally or as modified after the draft decision, in this instance can produce a reliable estimate of the pipeline's ICB consistent with code requirements.

The ACCC found that, in some cases, past expansions of the RBP have been fully funded by users through users' contributions. The ACCC does not consider that it is reasonable for users to continue to pay for these expansions. Accordingly, in calculating the ICB the ACCC has deducted the value of these expansions from the DORC.

The ACCC has determined that the ICB should be set at $251.11m in July 2006 dollars.

Reference tariff methodology, tariffs and revenue

APTPPL has proposed an initial reference tariff for a firm forward haul service comprising a capacity reservation charge ($0.4243/GJ/MDQ/day) and a throughput charge ($0.0283/GJ). The reference tariff is to increase by CPI each year of the access arrangement period. Beyond 2011 the reference tariff will be adjusted annually by more than CPI. The tariff path was proposed to approximate the forecast average tariff at 2011 for existing capacity under current contracts. Underlying APTPPL's proposed tariff path is a back-end loaded depreciation schedule, including negative depreciation over and beyond the forthcoming access arrangement period.

The ACCC has determined a starting tariff that is about 10 per cent less than the overall tariff proposed by APTPPL. The tariff includes a capacity reference tariff ($/GJ of MDQ/day) of $0.3819 and a throughput reference tariff ($/GJ) of $0.0255. The difference between the APTPPL and ACCC starting tariff primarily reflects differences in input parameters such as the ICB, the rate of return and lower non-capital costs. The tariff path also provides for a real reduction in the level of the tariff over time. The real reduction is achieved by the CPI-X formula where X is proposed as 0.79. This real reduction is a position that is more consistent with the operating environment and volume forecasts than APTPPL's proposed tariff path. It still results in back-ended depreciation which is generally a feature of the NPV approach to the calculation of total revenue.

APTPPL proposed that the reference tariff only apply to existing capacity of around 180 TJ a day. Tariffs applying to expansions and extensions would be negotiated between APTPPL and prospective users. APTPPL submitted that it has not included possible expansions in the calculation of total revenue and the reference tariff because the timing, capacity and costs of expansions are unknown. APTPPL has also indicated that the pipeline will only be expanded when the expanded capacity is fully contracted.

APTPPL's proposal to have the reference tariff apply only to the existing capacity of the pipeline is not explicitly precluded by the code. Since the RBP is almost fully contracted, the reference tariff will only apply to spare capacity and contracted capacity when

existing contracts come up for renewal. The reference tariff for existing capacity, while not strictly applicable to expansions, could serve as a guide for prospective users in their negotiations with APTPPL. Moreover, prospective users have access to the arbitration provisions of the code in the event of a dispute in relation to access to expanded capacity of the covered pipeline.

To ensure that users and prospective users can access the existing capacity of the pipeline at the reference tariff when current contracts expire, APTPPL is required to maintain a separate queue for this capacity. APTPPL will be able to offer a negotiated tariff for additional firm forward haul services when new capacity has been created by installation of new capacity such as compression or looping.

Services policy

APTPPL proposed only one reference service - firm forward haul. If users require any other services these would be at negotiated tariffs. While firm forward haul is the service most users require there is also demand for other services such as backhaul, interruptible and park and loan. Demand for these services is likely to grow, particularly following the introduction of full retail contestability and greater use of gas-fired power generation. Consideration was given to making these services rebateable but this was considered to be impracticable while most of the capacity of the pipeline is fully contracted and not be subject to the reference tariff until 2012. Providing backhaul, interruptible and park and loan services as negotiable services will better encourage the development of these services at this time.

Users can negotiate for these other services to the extent they are currently available. These negotiations if unsuccessful can be subject to dispute resolution under the provisions of the code.

Improved information availability

Users and prospective users of the RBP are not only interested in the level of the tariff. Users also sought more flexible ways of accessing or trading the contracted and spare capacity of the pipeline. In response to concerns raised by interested parties, the ACCC proposed a number of changes to the revised access arrangement to expedite access to and trading of spare and developable capacity.

APTPPL has agreed to establish electronic access to its register of spare and developable capacity if the prudent costs of this activity will be recoverable as a new facilities investment or non-capital costs as the regulator agrees as appropriate.

APTPPL has indicated that it is willing to consider the introduction of an electronic bulletin board if there is commitment from users and where APTPPL's costs are recoverable from users or via the access arrangement process.

1. Introduction

1.1 Access arrangement revisions

APT Petroleum Pipelines Limited (APTPPL) is currently subject to an access arrangement, approved by the Australian Competition and Consumer Commission (ACCC) in 2002, for the Roma to Brisbane Pipeline (RBP).[1] An access arrangement describes the terms and conditions under which a service provider will make access to the services of the pipeline available to third parties. The current access arrangement period for the RBP will end when the revisions approved by the ACCC come into effect.[2]

Chapter 2 of the *National Third Party Access Code for Natural Gas Pipeline Systems* (the code) specifies that the service provider of a gas pipeline covered by the code is required to propose revisions to an access arrangement and submit them to the regulator for approval by the revisions submission date.[3]

In assessing such proposed revisions to an access arrangement, the code specifies that the regulator must:

- inform interested parties that it has received the proposed revisions to the access arrangement and the associated access arrangement information
- publish a notice in a national daily paper which at least:
  - describes the covered pipeline to which the access arrangement relates
  - states how copies of the documents may be obtained, and
  - requests submissions by a date specified in the notice
- after considering submissions received, issue a draft decision that either proposes to approve the revisions or proposes not to approve the revisions and states the amendments (or nature of the amendments) that would have to be made to the revisions for the ACCC to approve them
- after issuing the draft decision, invite any further submissions
- after considering additional submissions, issue a final decision that either approves or does not approve the revisions (or amended revisions) and states the amendments (or nature of the amendments) which have to be made to the revisions (or amended revisions) in order for the ACCC to approve them, and

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1 The Roma to Brisbane Pipeline (RBP) is the more commonly used name for the Wallumbilla to Brisbane pipeline.

2 The current access arrangement period was due to end on 28 July 2006, but the ACCC extended the period for approving the revised access arrangement as permitted by s. 2.44 of the code.

3 In addition, a service provider may submit revisions at any other time. The assessment process for 'voluntary' revisions differs in a number of ways to that described.

- if the amendments are satisfactorily incorporated in a revised access arrangement, issue a further final decision (referred to as a final approval) to approve the revised access arrangement. If not, the ACCC must draft and approve its own access arrangement addressing the specified amendments.

1.2 Consultative process

The code sets out a consultative process for the regulator to follow when assessing revisions to an access arrangement. The ACCC also held two roundtable discussions with APTPPL and interested parties.

On 31 January 2006 APTPPL submitted to the ACCC its proposed revisions to the access arrangement with accompanying access arrangement information. These documents were made public via the Australian Energy Regulator (AER) website on 22 February 2006 and the public register held by the Code Registrar. After APTPPL provided further supporting information, the ACCC published a notice in the *Australian Financial Review* and *The Courier Mail* and released an issues paper on 18 April 2006. In its advertisement and issues paper the ACCC invited submissions from interested parties on the proposed revisions.

After considering submissions, the ACCC released its draft decision on 31 August 2006 that it proposed not to approve the revisions in their current form and proposed 22 amendments to be made to the revisions. At that time the ACCC invited submissions on the draft decision from interested parties to be received by 25 September 2006. The only submission received in response to the draft decision was from the service provider APTPPL, and it was received on a staggered basis with the final consolidated version being received on 10 October 2006. The ACCC subsequently requested and received comment on the preferred regulatory approach for prior contributions by users to the cost of expanding the capacity of the RBP. The submissions received before and after the draft decision are listed in appendix A. The ACCC has now, after considering this submission and other relevant information, issued its final decision.

On 15 May 2006, prior to the release of the draft decision, the ACCC held a roundtable discussion involving APTPPL and interested parties in order to better understand the queuing and trading policies for this pipeline. This provided an opportunity for interested parties to exchange views on the operation of the pipeline and to raise issues with the ACCC and with APTPPL. After the release of the draft decision, on 5 September 2006 the ACCC held a further roundtable discussion which provided participants with the opportunity to discuss issues arising from the draft decision. Minutes of both these meetings are available on the AER website (www.aer.gov.au).

Copies of the revisions application and associated documents are available (subject to confidentiality restrictions) from the AER website and from the Code Registrar. Copies of this final decision may also be obtained from the ACCC by contacting Ms Stacey Breen on telephone (02) 6243 1233; fax (02) 6243 1205; or email rbp@accc.gov.au.

1.3 Criteria for assessing revisions to access arrangements

The regulator may approve revisions to an access arrangement only if it is satisfied that the access arrangement as revised would contain the elements and satisfy the principles set out in ss. 3.1 to 3.20 of the code, which are summarised below. Revisions to an access arrangement cannot be opposed solely because the access arrangement as revised would not address a matter that s. 3 of the code does not require it to address. Subject to this, the regulator has a broad discretion in accepting or opposing revisions to an access arrangement.

An access arrangement, or a revised access arrangement, must include the following elements:

- a policy on the service or services to be offered which includes a description of the service(s) to be offered
- a reference tariff policy and one or more reference tariffs. A reference tariff operates as a benchmark tariff for a particular service and provides users with a right of access to the specific service at the reference tariff. Tariffs must be determined according to the reference tariff principles in s. 8 of the code
- terms and conditions on which the service provider will supply each reference service
- a statement of whether a contract carriage or market carriage capacity management policy is applicable
- a trading policy that enables a user to trade its right to obtain a service (on a contract carriage pipeline) to another person
- a queuing policy to determine users' priorities in obtaining access to spare and developable capacity on a pipeline
- an extensions and expansions policy to determine the treatment of an extension or expansion of a pipeline under the code
- a date by which revisions to the arrangement must be submitted, and
- a date by which the revisions are intended to commence.

In considering whether a revised access arrangement complies with the code, the ACCC must take into account the provisions of the access arrangement as it currently stands and, pursuant to s. 2.24 of the code, the following factors:

- the legitimate business interests and investment of the service provider
- firm and binding contractual obligations of the service provider or other persons (or both) already using the covered pipeline
- the operational and technical requirements necessary for the safe and reliable operation of the covered pipeline

- the economically efficient operation of the covered pipeline
- the public interest, including the public interest in having competition in markets (whether or not in Australia)
- the interests of users and prospective users, and
- any other matters that the ACCC considers are relevant.

Appendix B to this final decision sets out the access arrangement information that a service provider must disclose to interested parties (attachment A to the code).

1.4 The initial access arrangement assessment

The initial access arrangement process was conducted in accordance with the requirements set out in the code and was based on information provided by APTPPL and interested parties. However, the scope of the access arrangement assessment was limited by the Queensland Government derogation. This derogation determined the reference tariff for the pipeline.

The consultation and assessment process undertaken by the ACCC included:

- the release of the draft decision (under s. 2.13 of the code) on the proposed access arrangement on 15 August 2001, in which the ACCC proposed eight amendments to be made for the access arrangement to be approved
- the release of the final decision (under s. 2.16 of the code) on 16 January 2002, with the ACCC requiring seven amendments to be made for the access arrangement to be approved.

APTPPL submitted a revised access arrangement to the ACCC in August 2002. Having received the revised access arrangement, the ACCC was obliged under s. 2.19 of the code to issue a further final decision (the Final Approval).

The ACCC found that APTPPL incorporated the amendments specified in the final decision. Accordingly, the ACCC approved the revised access arrangement submitted by APTPPL on 11 September 2002. The decision documents are available on the AER website.

1.5 Regulatory framework

This assessment of the revised access arrangement for the RBP is not limited by the derogation provided for in the Natural Gas Pipelines Access Agreement.

1.5.1 Relevant legislation

The main legislation and relevant documents regulating access to the Queensland gas transmission industry are:

- the code, under which transmission service providers are required to submit access arrangements and revised access arrangement to the ACCC for approval
- the *Gas Pipelines Access (Queensland) Act 1998*
- the *Gas Pipelines Access (Queensland) Act 1998*—Derogations
- the *Gas Pipelines Access (South Australia) Act 1997*.

In accordance with the Natural Gas Pipelines Access Agreement, South Australia was the lead legislator in implementing the national gas access legislation.

Regulatory institutions

Code bodies and appeals bodies for Queensland transmission pipelines are:

- the ACCC—regulator and arbitrator
- the National Competition Council (NCC) —code advisory body
- the Commonwealth Minister—coverage decision maker
- the Federal Court—judicial review
- the Australian Competition Tribunal (the Tribunal)—administrative appeal.

1.5.2 Certification of the Queensland Gas Access Regime

Following advice from the NCC, the Parliamentary Secretary to the Treasurer determined on 17 July 2006 that the Queensland gas access regime is not an effective access regime under the National Access Regime (Part IIIA of the *Trade Practices Act 1974*).

The Commonwealth Minister's decision to not certify the Queensland gas access regime as effective does not affect the ACCC's considerations of the RBP's proposed revised access arrangement. As a consequence of this decision, Queensland pipelines are still subject to potential declaration under Part IIIA of the *Trade Practices Act 1974* which provides for dispute resolution by the ACCC.

1.5.3 The role of the ACCC

The role of the ACCC, as the relevant regulator for the RBP, was discussed at some length in the judgment of the Full Federal Court in *ACCC v Australian Competition Tribunal* [2006] FCAFC 83 (2 June 2006).[4]

The Full Federal Court confirmed that the ACCC may not reject a proposed access arrangement and substitute its own unless it is of the opinion that the proposed access arrangement does not comply with the code. It is beyond the ACCC's power to reject a

[4] This judgment relates to the ACCC's application for judicial review of the Tribunal's decision to vary the ACCC's decision in relation to the initial capital base (ICB) for the Moomba to Sydney Pipeline.

proposed access arrangement simply because it prefers a different access arrangement which it believes could better achieve the objectives of the code. However, if the ACCC is of the opinion that a proposed access arrangement does not comply with the code it is, subject to the code, at large in terms of the access arrangement that it is empowered to impose. In the context of the MSP decision, the Court noted that establishing an ICB required the regulator to make discretionary decisions relating to the weight to be attached to various factors and the application of the principles established by the code. The court also discussed the role of the Tribunal under s. 39 of the *Gas Pipelines Access Law* and provided guidance on the grounds for review that must be made out before the Tribunal can set aside the regulator's decision.[5]

1.5.4 The role of the Australian Energy Regulator

The ACCC has prepared this final decision in consultation with the Australian Energy Regulator (AER).[6] The ACCC is currently the regulator of natural gas transmission pipelines under the code (except for WA). However, governments have agreed that this function will be undertaken by the AER, along with regulation of natural gas distribution pipelines from July 2007.

1.6 Background

1.6.1 Structure of the Queensland gas market

Matters relevant to the structure of the natural gas industry in Queensland include the following:

- Gas produced in Queensland accounts for 5 per cent of the total Australian gas production and is sourced from the Queensland sector of the Cooper–Eromanga, Bowen–Surat and Adavale basins.[7] Coal seam methane (CSM) is considered to be a large part of Queensland's proved and probable gas reserves.[8]
- Queensland's gas consumption is approximately 100 PJ per annum and is expected to grow at about 4.3 per cent per annum, which is higher than the national average growth rate of 3.8 per cent.[9] Almost half of Queensland gas supply is transported on the RBP. The sectoral breakdown of annual gas consumption in Queensland is estimated as follows:
  - Manufacturing 47.11 PJ
  - Mining 11.50 PJ

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5 [2006] FCAFC 83 at [169] to [180]

6 The relevant regulator of the code with respect to the RBP is the ACCC. All references in this final decision to the regulator are to the ACCC. Proposed changes to legislation, once enacted, will result in the AER becoming the relevant regulator.

7 ABARE, *Energy in Australia*, 2004; Report prepared for the Dept. of Industry Tourism and Resources, p. 25.

8 Queensland Government Dept. of Energy, *Gas in Queensland*, viewed 06 December 2006, <http://www.energy.qld.gov.au/gas_in_queensland.cfm>.

9 Queensland Government Dept. of Energy, *Gas in Queensland.*

- Electricity gas and water 39.88 PJ
- Residential 1.45 PJ
- Other 1.99 PJ.[10]

- South-east Queensland currently has two main natural gas distribution companies:
  - Allgas Energy Ltd, owned by Australian Pipeline Trust (providing service to south Brisbane, the Gold Coast, Toowoomba, and Oakey)
  - Envestra (servicing north Brisbane, Gladstone, Ipswich and Rockhampton)

  Both distribution networks depend on the RBP for transport of their gas supplies.
- Queensland has committed to introducing full retail contestability (FRC) into the gas market from 1 July 2007.[11]
- The Queensland Government's 13 per cent gas scheme requires electricity retailers and other liable parties to source at least 13 per cent of their electricity from gas-fired generation. This is expected to increase the use of CSM in electricity generation and will impact on the demand for the services of the RBP.

1.6.2 The Roma to Brisbane Pipeline

The RBP was commissioned in its original configuration in 1969. It now consists of a mainline, which is both compressed and looped, and a lateral pipeline (the Peat lateral) connecting it to CSM gas sources near Peat and Scotia. The mainline is approximately 440 km long with about 30 km of its length running through Brisbane to Gibson Island. The original 410 km section from Wallumbilla to Ellengrove is 273 mm in diameter. This section is looped with a 406 mm diameter pipeline. The looping was carried out in several stages, beginning in 1988, after the original line had been fully compressed. The final section of looping was completed in 2002. The Peat lateral was completed in 2001 (the Scotia extension was completed in 2003) and is 128 km long with a current capacity of 52 TJ/day. The Peat lateral became part of the covered pipeline on 1 January 2006 after APTPPL elected, following consultation with the ACCC (as permitted by its access arrangement), for it to be covered.

Under the access principles approved by the Queensland Minister which are currently incorporated in the access arrangement for the RBP, the reference service and reference tariff apply only up to a capacity of 101 TJ/day and beyond that are offered as a negotiated service at a negotiated tariff. Although the current nominal licensed capacity of the pipeline is 180 TJ/day, volumes during the proposed access arrangement period are forecast to grow from 196.2 TJ/day in 2006–07 to 202.9 TJ/day in 2010–11 using the existing capacity of the RBP. APTPPL has advised that the capacity of the pipeline as currently configured (including the location of receipt points and loads) is approximately 203 TJ/day. This provides potential users the opportunity to negotiate for the incremental volume increase at the reference tariff.

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10 Australian Bureau of Agricultural & Resource Economics (ABARE), 2003–04 data.

11 Queensland Government, Dept. of Energy, Gas FRC implementation timeframe, viewed 06 December 2006, <http://www.energy.qld.gov.au/zone_files/ECC/frc_gas_timeline.pdf>.

The pipeline originally supplied the Brisbane area with gas from Surat Basin fields close to Roma. Natural gas is now also being sourced from the Cooper/Eromanga Basin via the Epic Energy owned South West Queensland Pipeline (SWQP). In 2001 and 2002 the RBP was extended via the Peat Lateral to enable CSM from the Peat and Scotia gas fields to be supplied into south-east Queensland. The RBP also connects with the Queensland Gas Pipeline (QGP), which runs from Wallumbilla to Rockhampton (via Gladstone).[12] This allows Wallumbilla to function as a hub for the supply of gas in Queensland. Access to gas from south-west Queensland may be affected by possible changes to the flow of the SWQP. This development in part reflects the growth of CSM in the Surat Basin. The future operation of the RBP may be influenced by the introduction of FRC and other initiatives flowing from the Gas Market Leaders Group which is considering options to enhance Australia's wholesale gas market.

There are six compressor stations along the length of the pipeline. Those at Yuleba, Kogan and Oakey serve the original pipeline while those at Condamine, Dalby and Gatton serve the looped pipeline. APTPPL is currently discussing with interested parties possible expansion of the pipeline to meet future demand.

The RBP was originally owned and operated by Associated Pipelines Limited (APL). In 1987 a joint venture was established with IOL Petroleum Limited (IOL) owning 15 per cent and APL 85 per cent. In 1988 APL changed its name to CSR Petroleum Pipelines Limited and was acquired by Australian Gas Light Company (AGL) as part of a larger acquisition of CSR's oil and gas production and transportation businesses.

The business was then renamed AGL Petroleum Pipelines Limited. In 1997 IOL changed its name to Interstate Pipelines Limited. AGL's divestment of its pipelines group via the float of Australian Pipeline Trust (APT) resulted in AGL Petroleum Pipelines Ltd changing its name to APT Petroleum Pipelines Limited (APTPPL). In 2001 APTPPL purchased the 15 per cent ownership stake of the RBP from Interstate Pipelines Limited resulting in it owning 100 per cent of the RBP.[13]

In July 2006, the then Queensland Minister for Energy, the Hon. John Mickel requested the Energy Competition Committee chaired by Mr Darryl Somerville to investigate the possible duplication of the Brisbane section of the RBP as part of a range of strategies to increase competition and investment in the Queensland gas market.[14]

1.7 Final decision

The ACCC has now made a final decision under s. 2.38(b)(ii) of the code not to approve the amended revised access arrangement for the RBP in its current form and has set out the amendments that are required to be made in order for the amended revised access arrangement to be approved. The revised amended access arrangement,

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12 Currently owned by Alinta Infrastructure Holdings Limited.

13 APTPPL, Access arrangement information for Roma Brisbane pipeline, 31 January 2006 pp. 2–3. cited as 'Access arrangement information'.

14 Media release, Minister announces moves to foster gas competition, 14 July 2006.

incorporating the required amendments must be submitted to the ACCC by 9 February 2007.

In order for the ACCC to approve an amended revised access arrangement under s. 2.41 of the code, it must be satisfied that the amendments specified in this final decision have been incorporated, or that APTPPL has either substantially incorporated the amendments or otherwise addressed (to the ACCC's satisfaction) the reasons for which the ACCC required the amendments. These amendments have been set out in the relevant sections in this document and also in chapter five of this final decision.

If APTPPL:

- does not submit an amended revised access arrangement by the required date, or
- does so and the ACCC is not satisfied it has incorporated amendments specified in this final decision, or otherwise addressed to the ACCC's satisfaction the reasons for which the amendments were required,

then the ACCC must draft and approve its own amended revisions to the access arrangement instead of the revisions proposed by the service provider (s. 2.42). Such a decision is subject to merits review by the Australian Competition Tribunal under the Gas Pipeline Access Law.

2. Reference tariff elements

The code specifies a set of mandatory elements with which an access arrangement must comply. This chapter examines the basis on which APTPPL's proposed reference tariff has been established and the reasons for the ACCC's amendments to the reference tariff determination. Amongst other things, three critical elements are considered. These are the initial capital base (ICB) of the pipeline, APTPPL's appropriate rate of return on capital and the pipeline's efficient operating costs.

For the reasons set out in this chapter, the ACCC concluded that APTPPL's proposals in relation to the initial capital base and the weighted average cost of capital do not comply with the code principles. The amendments that APTPPL is required to address in its revisions to the access arrangement are specified in this chapter as well as the reasons for seeking those amendments. Chapter 3 considers APTPPL's compliance with the non-tariff elements of the code.

Sections 3.3 to 3.5 of the code require an access arrangement to include a reference tariff for at least one service that is likely to be sought by a significant part of the market and for other services that are likely to be sought by a significant part of the market and for which the regulator considers a reference tariff should be included. An access arrangement must also include a policy describing the principles that are to be used to determine a reference tariff (a reference tariff policy). The reference tariff and reference tariff policy must comply with the reference tariff principles in s. 8 of the code.

2.1 Reference tariff methodology

2.1.1 Code requirements

Section 8.3 of the code states that the manner in which a reference tariff may vary within an access arrangement period is within the discretion of the service provider. This is subject to s. 8.3A (reference tariff variation method) and the regulator being satisfied that the policy is consistent with s. 8.1. Under s. 8.3, a service provider may select from:

a) the cost of service approach[15] - where tariffs are adjusted throughout the access arrangement period to account for actual outcomes (such as sales volumes and actual costs) to ensure that the actual costs of the services are recovered

b) the price path approach - where tariffs are determined prior to the commencement of the access arrangement period and follow a path which is not adjusted to take account of subsequent events until the start of the next access arrangement period

[15] This approach is distinct from the Cost of Service approach detailed in s. 8.4 of the code, which refers to the methodology used to determine total revenue.

c) the reference tariff control formula approach - where tariffs may vary over the access arrangement period in accordance with a specified formula or process

d) the trigger event adjustment approach—where a reference tariff may vary within the access arrangement period following the occurrence of a specified event, or

e) any variation or combination of the above.

Section 8.4 of the code outlines the three methodologies available to the service provider to determine total revenue. The methodologies are:

- Cost of service: where the total revenue is set to recover costs with those costs to be calculated on the basis of a return (rate of return) on the assets that form the covered pipeline (capital base), depreciation of the capital base (depreciation) and the operating, maintenance and other non-capital costs (non-capital costs) incurred in delivering all services
- Internal rate of return (IRR): where the total revenue is set to provide an acceptable IRR (consistent with ss. 8.30 and 8.31 of the code) for the covered pipeline on the basis of forecast costs and revenue, and
- Net present value (NPV): where the total revenue is set to deliver a NPV for the covered pipeline (on the basis of forecast costs and revenue) equal to zero, using an acceptable discount rate (consistent with ss. 8.30 and 8.31 of the code).

These methodologies are different ways of assessing total revenue. However, the outcomes should be consistent (for example, it is possible to express any NPV or IRR calculation in terms of a cost of service calculation by the choice of an appropriate depreciation schedule). In addition, other methodologies that can be translated into one of these forms are acceptable under s. 8.5 of the code.

Section 8.5A of the code allows the above methodologies to be applied on a nominal basis, a real basis or any other basis dealing with the effects of inflation, provided that the basis used is specified in the access arrangement and is applied consistently in determining the total revenue and the reference tariffs.

2.1.2 Current access arrangement provisions

Under the derogation, the tariff arrangements for the RBP to 28 July 2006 were covered by the access principles approved by the Queensland Minister for Mines and Energy in accordance with amendments to the *Petroleum Act 1923* which came into effect on 1 July 1995. The reference tariff is currently varied on 1 April each year by 75 per cent of the increase in the CPI over the previous year.

2.1.3 APTPPL proposal

APTPPL proposed that the reference tariff be derived through a price path approach based on an application of the NPV methodology on a real basis. This methodology was selected with a view to recovering the efficient costs of the pipeline's existing capacity over the expected remaining life of the assets.

2.1.4 Submissions in response to the revised access arrangement

No submissions directly discussed the proposed methodology. Instead submissions tended to focus on APTPPL's proposed tariff and the ICB.

2.1.5 Draft decision

In its draft decision, the ACCC noted that APTPPL chose to base its proposed tariff on a price path approach based on an application of the NPV methodology on a real basis and that this is permitted under the code. The ACCC had no objection to the overall methodology adopted by APTPPL.

2.1.6 Submissions in response to the draft decision

No submissions were received on this issue.

2.1.7 Final decision

No new evidence has been raised on this issue. The ACCC has no objection to the overall methodology adopted by APTPPL.

2.2 The initial capital base

The capital base is defined as the capital assets that form the covered pipeline and are used to provide transportation services. The ICB is the value of those capital assets which has been determined for regulatory purposes. Once the ICB has been established it can be adjusted in subsequent access arrangement periods for depreciation, capital expenditure, redundant capital and inflation but cannot be re-established.

The ICB is the most crucial input parameter in determining the level of the reference tariff. The return of capital (depreciation) and the return on capital (the weighted average cost of capital (WACC)) are both dependent on the ICB and constitute most of the costs of delivering services.

In this section the ICB proposed by APTPPL is examined for compliance with the code. The code specifies a range of factors (s. 8.10 of the code) that the regulator must consider in determining the ICB. These can result in a range of feasible results for the ICB. In considering the relative weights to give to each of these factors the regulator is required to have regard to the objectives in s. 8.1 and where appropriate the factors in s. 2.24.

This section describes the code requirements and then discusses the ICB proposed by APTPPL and the basis for that proposal. Submissions from interested parties are also outlined. The ACCC's draft decision which outlined its considerations of the relative merits of each of the feasible ICBs and APTPPL's proposed ICB is then presented, followed by submissions in response to the draft decision and the ACCC's final decision conclusions.

2.2.1 Code requirements

(i) The initial capital base—existing pipelines

For existing pipelines, the code (ss. 8.10 (a) and (b) and 8.11) requires that normally the ICB should not fall outside the range of depreciated actual cost (DAC) and depreciated optimised replacement cost (DORC). In establishing the ICB, the code (s. 8.10) also requires the regulator to consider:

- other well-recognised asset valuation methodologies (s. 8.10(c)) and the advantages and disadvantages of these methodologies (including DAC and DORC) (s. 8.10(d))
- international best practice and the effect on the international competitiveness of energy consuming industries (s. 8.10(e))
- the basis on which tariffs have been (or appear to have been) set in the past, the economic depreciation of the covered pipeline, and the historical returns to the service provider from the covered pipeline (s. 8.10(f))
- the reasonable expectations of persons under the regulatory regime that applied to the pipeline before the commencement of the code (s. 8.10(g))
- the effect on the economically efficient use of gas resources (s. 8.10(h))
- the comparability with the cost structure of new pipelines that may compete with the pipeline in question (for example, a pipeline that may by-pass some or all of the pipeline in question) (s. 8.10(i))
- the price paid for any asset recently bought by the service provider and the circumstances of that purchase (s. 8.10(j))
- any other matters considered relevant (s. 8.10(k)).

(ii) General principles

The regulator is also guided by the objectives in s. 8.1:

> (a) providing the Service Provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets used in delivering that Service;
>
> (b) replicating the outcome of a competitive market;
>
> (c) ensuring the safe and reliable operation of the Pipeline;
>
> (d) not distorting investment decisions in Pipeline transportation systems or in upstream and downstream industries;
>
> (e) efficiency in the level and structure of the Reference Tariff; and
>
> (f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services.
>
> To the extent that any of these objectives conflict in their application to a particular Reference Tariff determination, the Relevant Regulator may determine the manner in which they can best be reconciled or which of them should prevail.

2.2.2 Current access arrangement provisions

The access arrangement for the RBP does not currently include an initial capital base established in accordance with ss. 8.1, 8.10 and 8.11 of the code.

2.2.3 APTPPL proposal

APTPPL has calculated the ICB through the application of the 'NPV cost-based DORC' (NPV DORC) methodology, based on the decision of the Tribunal in the Moomba to Sydney Pipeline (MSP) case.[16]

The optimised replacement cost (ORC) has been calculated at $456.1m as at October 2005. For the calculation of NPV DORC the ORC value has been adjusted by:

- including equity raising costs at a level of 3.83 per cent of equity value, as noted by the Allen Consulting Group (ACG)[17]
- reducing linepack costs.[18]

The NPV DORC has been calculated at October 2005, and gives a value of $342.6m. APTPPL has adopted this amount as the ICB.[19]

The ORC and ICB values are shown in table 2.2.3.1. The assets that form the ICB have then been allocated into the asset classes shown in table 2.2.3.1. This allocation of costs in the ICB is based on the proportion of the costs of each asset class in the optimised replacement pipeline.

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16 Application by East Australian Pipeline Limited [2004] ACompT 8 (8 July 2004) and [2005] ACompT 1 (18 March 2005).

17 The ACG, *Debt and equity raising transaction costs: report to the Australian Competition and Consumer Commission*, 2004 p. 61.

18 The ORC pipeline included $681 000 in linepack. This has been reduced to $180 000 to reflect the assumption that users would provide some of the linepack consistent with current practice.

19 The ICB is at October 2005. This figure has been inflated by forecast CPI and adjusted for depreciation to obtain a July 2006 value for the ICB of $343.9m.

Table 2.2.3.1: APTPPL's proposed RBP initial capital base (October 2005)

Asset class	ORC value ($m)	% of ORC	NPV DORC ($m)	ICB ($m)
Transmission pipelines (incl. linepack)	368.2	80.7		276.5
Compressor stations	54.0	11.8		40.6
Receipt and delivery stations	13.7	3.0		10.3
Land	13.3	2.9		10.0
Buildings	2.1	0.5		1.6
Communications	4.8	1.1		3.6
Total	**456.1**	**100.0**	**342.6**	**342.6**[20]
Add equity raising costs	6.6			
Subtract linepack	0.5			
Adjusted total	**462.2**			

Depreciated actual cost (s. 8.10(a))

APTPPL asserted that DAC is within a range of $0 to $253.3m. It placed no weight on this estimate. It claimed that there was insufficient financial information to make any meaningful calculation of the amount of economic depreciation recovered from users over the life of the RBP.

Depreciated optimised replacement cost (s. 8.10(b))

APTPPL proposed an ICB of $342.6m. This was determined by applying the NPV DORC approach used by the Tribunal in its consideration of East Australian Pipeline Limited's (EAPL) appeal against the ACCC's further final decision on the Moomba to Sydney Pipeline (MSP) access arrangement.

While APTPPL calculated a straight-line apportionment of the ORC at $315m, it did not give any weight to this estimate nor the basis of this calculation.

Other well-recognised asset valuation methodologies (s. 8.10(c))

APTPPL stated that it bought the remaining 15 per cent interest in the RBP in 2001 but that this purchase price should not be given any weight in determining the ICB as the purchase transaction occurred in the context of: the vendor exiting Australia and this was one of its few remaining assets; APTPPL had pre-emptive rights relating to the purchase; and there was no public or competitive process undertaken by the vendor.

APTPPL stated that it is not aware of any other well-recognised valuation methodologies relevant to the calculation of the ICB of the RBP under the code.

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[20] The ICB figure of $342.6 includes equity raising costs and is reduced for linepack.

Advantages and disadvantages of each valuation methodology (s. 8.10(d))

APTPPL made no comment on the advantages and disadvantages of either the DAC or NPV DORC. As noted above, APTPPL does not consider it appropriate to give any weight to the price it paid in 2001 for the remaining 15 per cent of the RBP.

International best practice and affect on international competitiveness (s.8.10(e))

APTPPL made no comment.

Basis for past tariffs, economic depreciation and historical returns (s. 8.10(f))

APTPPL claimed that there was insufficient information available to determine the basis on which tariffs were negotiated or to establish accurate identification of economic returns to the service provider over the life of the pipeline.

Reasonable expectations under the previous regulatory regime (s. 8.10(g))

APTPPL claimed it was reasonable for it to expect to be able to continue to charge tariffs established under the RBP access principles approved by the Queensland Government or contracts.

The economically efficient use of gas resources (s. 8.10(h))

APTPPL made no comment.

Comparability with the cost structure of competing pipelines (s. 8.10(i))

APTPPL stated that it was not aware of any proposal for a pipeline that may by-pass the covered pipeline.

APTPPL considered that the ORC reflects the cost of a pipeline to by-pass the RBP. As the NPV DORC methodology recognises the shorter remaining life of the existing pipeline, the proposed ICB will result in tariffs which are no higher than tariffs that the developer of a by-pass pipeline would have to charge to recover the costs of the new pipeline over its life.

Because the ORC reflects the most efficient route and design of a replacement (or by-pass) pipeline, an ICB and tariffs reflecting that ORC do not lead to a result which encourages inefficient by-pass.

The price paid for any asset recently bought by the service provider (s. 8.10(j))

APTPPL referenced the sale price for this section of the code. For simplicity, the sale price is addressed under s. 8.10(c)—other well-recognised asset valuation methodologies.

Other factors the regulator considers relevant (s. 8.10(k))

APTPPL made no comment.

2.2.4 Submissions in response to the revised access arrangement

QGC stated that:

- it was difficult to reconcile the ORC value with unit construction costs of the Peat lateral. The ORC value was considered excessive or alternatively sufficient to provide significantly expanded delivery capacities
- a clear statement of compression vs line diameter should be provided to allow for the determination of a reasonable optimised capacity
- it considered APTPPL's actual cost of the pipeline was reasonable before consideration of any direct user capital contributions
- APTPPL's proposed DORC approach undermines users' decisions to expend additional funds to secure certainty in future contracts
- adopting actual expenditure to date and allowing for the complete replacement or looping of the metropolitan section would result in an ICB that would be more acceptable to users.

Energex stated that:

APTPPL has accrued substantial amounts of economic depreciation of the assets before the establishment of the ICB. Accordingly, Energex firmly believes the ACCC should analyse the available information and ensure ss. 8.10(a) and (f) of the code are appropriately considered.

2.2.5 Draft decision

Depreciated actual cost (s. 8.10(a))

In its draft decision, the ACCC noted that s. 8.10(a) of the code requires the regulator to consider the value that would result from taking the actual capital cost of the covered pipeline and subtracting the accumulated depreciation for those assets charged to users (or thought to have been charged to users before the start of the code). This is referred to as depreciated actual cost (DAC).

The Western Australia Full Court in *Re Michael* observed that in calculating the DAC it is usual to take the net book value and to depreciate this in line with accounting standards.[21] APTPPL's 2005 statutory accounts reveal an asset value of $182.2m and a depreciated value of $133.7m.[22] In the access arrangement information, APTPPL stated that revaluations of assets have occurred which increased the book value of the asset by $34.9m. Further details of the asset lives were obtained that enabled a calculation of the total depreciated value of these revaluations as being $25.4m at June 2005.[23] This resulted in a net book value of $108.3m at June 2005.

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21 Re Dr Ken Michael AM; ex parte EPIC Energy (WA) Nominees Pty Ltd & Anor [2002] WASCA 231, paragraph 163.

22 From annual accounts at June 2005 (the analysis included accounts from 1991/92 to 2004/05 financial years).

23 In APTPPL's *Response to an ACCC request for information (2/3/06)*, the revaluation figures were provided. The ACCC used APTPPL assumptions that revaluations described as 'transmission

APTPPL claimed that the reference to 'charged' under s 8.10(a) indicated that economic not accounting depreciation is required to calculate the DAC.[24] It claimed that there was insufficient financial information to make any meaningful calculation of the amount of economic depreciation recovered from users over the life of the RBP. APTPPL submitted that economic depreciation is calculated as the residual value derived from subtracting costs (including a return on capital) from revenue. It stated that for any pipeline the minimum value for DAC will be zero (where depreciation is at least equal to the actual costs) and the maximum will be the actual costs (where no depreciation is recovered).

APTPPL therefore stated that the DAC will fall within a range of zero (where depreciation from users is equal to or greater than the actual capital cost) to $253.3m which APTPPL stated is the actual capital cost of the pipeline where there has been no depreciation recovered from users.[25] However, APTPPL placed no weight on this estimate.

Economic depreciation is defined as the change in the value of an asset from one period to the next. For regulatory purposes it is often calculated as the difference between revenue less operating costs and a normal return on assets. It is this latter definition that APTPPL seemed to have used when submitting that the DAC was in the range of zero to $253.3m, the total actual costs with no depreciation recovered. Taken to its logical conclusion, under such an approach the value of an asset at the end of its useful life could be as high as its actual costs, whereas the true value of the actual asset at that time would be its scrap value only.

In other regulatory decisions accounting standards have been used when there is insufficient financial information to establish an appropriate value for economic depreciation.[26] In its draft decision, the ACCC stated that it had reviewed the financial accounts for the period 1991–92 to 2004–05 and that it was satisfied that it was able establish a DAC of $108.3m. The ACCC did not accept APTPPL's argument that DAC had to be applied using economic depreciation.

Depreciated optimised replacement cost (s. 8.10(b))

In its draft decision, the ACCC noted that s. 8.10(b) requires an assessment of the regulatory value of the pipeline from applying a depreciated optimised replacement cost methodology (DORC).

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plant' would have an assumed life of 35 years and the revaluation described as 'Pipeline' would have an assumed life of 50 years. No information was provided on the assumed life for the revaluation described as 'adjustment', so the ACCC has used an assumed life of 50 years. These revaluations were depreciated using their assumed life and totalled $25.4m. The DAC is therefore $133.7m minus $25.4m, i.e. $108.3m.

24 APTPPL, 'Access arrangement information', p. 7.

25 The actual cost of the pipeline in nominal dollars was $155.8m. However, APTPPL has used the CPI to index this figure to June 30 2005 dollars resulting in a figure of $253.3m.

For example Re Dr Ken Michael AM; Ex Parte Epic Energy (WA) Nominees Pty Ltd & ANOR [2002] WASCA 231, p 71, para. 163. This was noted by the ACCC in the final decision on the MSP as support for its position in that case. See also ACCC final decision—Access arrangement by AGL Pipelines (NSW) Pty Ltd for the Central West Pipeline 30 June 2000.

In previous regulatory decisions concerning gas transmission pipelines, the ACCC has applied an estimate of DORC based on the straight-line apportionment of the ORC.

Except for the MSP access arrangement, this has been the DORC proposed by service providers in other access arrangements for gas transmission pipelines. While APTPPL proposed a NPV DORC for this access arrangement, the ACCC considered it appropriate to consider both approaches in its assessment as the code provides no guidance on the methodology to be used to determine the DORC. It is open to the regulator to consider the merits of both methodologies in terms of the s. 8.1 objectives of the code to determine the best estimate of DORC.

NPV DORC

APTPPL proposed a DORC October 2005 of $342.6m. APTPPL defined DORC as the NPV of the difference between the lifecycle costs of an optimal replacement pipeline established in 2006 and the life cycle costs applying to the existing pipeline including its eventual replacement. However, as discussed in more detail later in this section, APTPPL has not taken into account potential differences in service potential between an optimal replacement pipeline and the existing pipeline. To the extent that differences exist, APTPPL's proposed cost-based NPV DORC will overstate the true amount of the NPV DORC.

The NPV DORC methodology can be considered as the deprival value of the existing asset to the service provider.

APTPPL provided a model supporting its proposed DORC valuation. Major inputs into the model were:

- The value of the optimal new pipe: the cost of construction now and the cost of future expansions to meet anticipated demand, as well as the cost of replacement of these assets when they wear out. Replacement costs are less than current costs due to assumed technology developments.
- The cost of expanding the current pipeline so that it can meet anticipated demand.[27]
- The cost of replacing the current pipeline when its assets wear out, including a forecast of how the system may be changed to a more optimal configuration over time.
- The value of operating and maintenance expenditures appropriate to both the new and the existing pipelines. APTPPL has used the same operations and maintenance forecast as it has provided for the revenue model. It has factored in an increase in operations and maintenance each year when assets are aging and a reduction when assets are replaced with new assets. The ACCC agreed with that approach.
- The discount rate for establishing the present value of future costs.

Consultant engineer to APTPPL, Venton & Associates (Venton), estimated the cost of the optimised new pipeline to be $456m (in October 2005 dollars), with another $38m

[27] The model does not include duplication of the Brisbane section of the RBP as mooted by Queensland Minister for Energy in his statement on 14 July 2006.

needed in 2008 to increase capacity from 203-236 TJ/day to 290-304 TJ/day, the maximum forecast by APTPPL over the next 20 years.[28] The ACCC asked Sleeman Consulting (Sleeman), to independently estimate the cost of the optimised replacement. Sleeman's optimal pipeline was costed at $502m (in May 2006 dollars) with no additional expenditure required for expansion.[29] Both estimates were based on comparably sized pipelines[30] with two compressor stations each containing two compressors. In view of the sizeable contingency factors surrounding such estimates, the ACCC considered the difference in the costs of the two estimates to be immaterial. It therefore accepted the Venton estimate with a modification to the 'return allowed during construction cost'.

Venton based the 'return allowed during construction cost' on a nominal WACC of 10.6 per cent.[31] Consistent with its previous decisions, the ACCC considered the nominal WACC to be the appropriate rate at which to calculate a return during construction.

In any event, the ACCC concluded that the appropriate WACC was 5.3 per cent real, or 8.5 per cent in nominal terms (see section 2.5 of this final decision),[32] and considered that this return during construction cost should be applied in calculating the ORC. This reduced Venton's ORC by around $5.3m.

The ACCC considered that there were problems with the methodology APTPPL adopted to implement NPV DORC and the value of some inputs used. The ACCC commissioned NERA Economic Consulting (NERA) to assess the assumptions used by APTPPL's consultant CRA International (CRA) in modelling the DORC for the RBP.[33] The principal criticisms related to the choice of discount rate, the treatment of taxation, the use of an asset replacement schedule on the basis of effective life averaging and the differences in optimal service levels between the new and existing pipelines. The first three of these factors, which warranted changes to the model, are discussed below. The last factor (service differentials) is also discussed below but the model has not been adjusted to take this factor into account.

Discount rate

APTPPL used its proposed pre-tax real WACC of 6.9 per cent to discount the difference between the future costs associated with the optimal replacement pipeline

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28 While the model makes its analysis over 238 years, APTPPL has assumed that demand will not increase beyond the maximum demand over the next 20 years.

29 Sleeman's estimate is arrived at using a 'steady state' model whereas the Venton estimate is based on a transient model. The former is a more conservative approach and may tend to overestimate the required pipeline diameter and hence the construction cost.

30 The only difference is Venton uses a 500 mm diameter for the section from Wallumbilla to Arubial whereas Sleeman uses 450 mm.

31 Venton report, *Optimised Replacement Cost Study*, p. 64. This figure was above the nominal 10.0 per cent return rate derived from APTPPL's proposed real WACC of 6.9 per cent.

32 The ACCC notes that these WACC figures were not those determined in the draft decision. They were older figures which were not updated with the latest figures. The real WACC was 5.85 per cent and the nominal WACC was 9.02 per cent.

33 The result of that study is NERA, *Assessment of elements of APT's DORC calculations for RBP*, 25 July 2006 cited as NERA, 'DORC calculations'.

and those associated with the existing pipeline. However, the appropriate discount rate for costs (as opposed to profits) was determined by ACCC to be the real risk free rate (2.44 per cent) as recommended by NERA.[34] This was based on the observation that there is little, if any, systemic risk in the forecast cost streams. The use of the risk free rate was also supported by empirical studies of the volatility of after-tax profits compared with costs. This supported the position that the discount rate for costs should not include a risk premium.[35] NERA also referenced Professor Bruce Grundy who supported the use of the risk free rate for discounting costs in a paper written for the Tribunal when it considered the NPV DORC concept in the context of the MSP appeal.[36]

The error of using a company's rate of return as the discount rate for costs can be seen intuitively by considering what happens when the company takes on increasingly risky projects.

The discount rate increases (the return on capital increases to compensate investors for the increased risk) and therefore the present value of the liability decreases.[37] The logical extension of this is that if the company took on projects with almost infinite risk, it could make the future liability reduce to almost zero in present value. Intuitively, this is wrong, as the nature of that same liability has not changed. Insurance industry practice also recognises that the value of the liability does not change with the company's cost of capital by requiring that liabilities be discounted by the risk free rate.[38]

Tax

APTPPL did not take tax into account in its NPV DORC calculations. CRA, the consultant that calculated the NPV DORC model for APTPPL, claimed that it took tax into account implicitly by using a pre-tax WACC for the discount rate.[39] NERA's report demonstrated that CRA International's approach resulted in the post-tax cost of expenditure in early years being over valued and in later years being under valued compared to the correct approach of discounting post-tax costs using a post-tax discount rate. The timing of tax payments can be modelled directly and needs to be given the importance of the timing of tax payments in influencing investment decisions.

The tax deductions available depend among other things on the length of time the pipeline has operated and the extent to which the pipeline has generated sufficient

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34 NERA, 'DORC calculations', p. 8.

35 Brealey, Cooper and Habib, *Oxford Review of Economic Policy,* p. 24, cited in NERA, 'DORC calculations', p. 4.

36 NERA, 'DORC calculations', pp. 3–8.

37 Assume a company has a rate of return of 10 per cent and a liability of $100 in one year. Using the rate of return as a discount rate would imply that the current value of that liability is $90.91. Assume now that the company takes on more risky projects such that its rate of return is now 20 per cent. Using the rate of return as a discount rate would imply that now the current value of that liability is $83.33. The more risky the company's projects, the lower the present value of that same future liability, even though its nature has not changed.

38 NERA, 'DORC calculations', p. 4.

39 CRA International, *Roma-Brisbane Pipeline: DORC Asset Valuation*, February 2006, p. 12.

revenue to allow expenses to be deducted from assessable income. The incumbent owner is likely to have less by way of capital allowances to deduct, compared with a new entrant, because some past deductions (even where they paid more than the construction cost of the asset) will have already been claimed whereas the new entrant will be able to claim deductions for its full purchase price of the asset. APTPPL argued that the assumed tax position should be that of a new entrant rather than the incumbent. It said the DORC is the amount the new entrant would pay an incumbent to acquire the existing asset.[40] However, DORC can also be considered from the incumbent's perspective: as the value of the asset to the incumbent given the option of replacing it.

In its draft decision, the ACCC noted that the code provides no specific guidance on whether DORC should be viewed from the incumbent's or a new entrant's position. Nevertheless, it was determined that the current context was the regulation under the code of a service provider that exists (an incumbent) and the valuation of its asset. Calculating DORC from the perspective of the existing service provider was considered appropriate in the context.

In its draft decision, the ACCC also noted that another issue to consider in selecting the appropriate DORC calculation is consistency with the assumptions underlying the revenue model used for the access arrangement. The ACCC uses post-tax revenue modelling in which tax liabilities are estimated. The liabilities are estimated from the incumbent's perspective (given that it is the revenue of the incumbent that is being modelled). As NERA has pointed out, the same assumption regarding tax depreciation should be used for modelling both revenues and the ICB.[41] To do otherwise could allow an over-recovery of costs.[42]

APTPPL asserted that 'regulatory precedent and literature supports' the new entrant viewpoint for the calculation of DORC.[43] Given that the NPV of costs DORC methodology was developed in 2004 (during the Tribunal's consideration of the appeal concerning the MSP), the ACCC considered any literature on the new entrant viewpoint unlikely to be in the context of this DORC methodology.[44]

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40 APTPPL, 'Access arrangement information', p. 10.

41 NERA, 'DORC calculations', p. 21.

42 If the new entrant perspective is used in the DORC, the DORC will be higher (as the costs of the existing pipeline will be lower because the maximum tax depreciation is available). To then use the incumbent perspective in the revenue modelling would give a higher revenue (than the new entrant perspective) because tax liabilities will be forecast to be higher (because there are less deductions available).

43 APTPPL, *Further information provided to ACCC, 21 February 2006*, p. 4. APTPPL provided no supporting evidence. The ACCC notes that the concept of a 'hypothetical new entrant' (HNE) is often used as the viewpoint for calculating estimates of contestable prices.

44 In its Draft Statement of Principles for the Regulation of Transmission Revenues (DRP), 27 May 1999, the ACCC had considered establishing DORC valuations based on alternative methodologies to the straight line approach. However, the ACCC did not develop or implement any alternative approaches. In 2000 Agility, in relation to the MSP access arrangement, submitted an NPV approach to calculating DORC which in its opinion was consistent with the principles contained in the DRP. The Agility approach was based on the NPV of future revenues, as opposed to future costs.

APTPPL noted that the capital base calculated under the incumbent viewpoint will vary according to the incumbent's length of ownership. It claimed this was inconsistent with the valuation technique required by s. 8.10 of the code.

The ACCC acknowledged that the incumbent's length of ownership affects the DORC of the pipeline but considered that this did not conflict with s. 8.10. The ACCC considered that as the establishment of an ICB for a pipeline is in the context of regulating the (incumbent) owner of that pipeline, it was appropriate that that owner's actual tax position be taken into account when assessing the ICB of the pipeline. The ACCC concluded that the incumbent position should determine the DORC calculation and the tariff calculations for the RBP access arrangement.

Existing pipeline replacement schedule

Assets such as compressors and segments of the existing pipeline need to be replaced when they wear out. APTPPL did not forecast a replacement schedule for these assets. Instead, for the sake of simplicity, it calculated the average lives of the existing pipes (57 years) and compressors (12 years).

NERA's report showed that this approach systematically biases the DORC calculation upwards because it ignores the economies of scale involved in replacing all the assets at once and that discounting an average life cost will underestimate the present value of the individual replacement costs.[45]

The ACCC considered it appropriate to model a realistic replacement scenario in the NPV DORC calculations. Sleeman considered a number of alternatives for the ACCC. The lowest cost alternative involved expanding the existing pipeline and replacing existing assets when they come to the end of their useful lives with looping and compression which have specifications that will enable them to form part of the optimal pipeline. The system eventually reflects the optimal pipeline in 2075 when the 400mm pipe reaches the end of its life. Thus the system would be progressively optimised.[46]

Applying assumptions about the appropriate time to replace existing assets to the NPV DORC methodology with the risk free rate for the discount rate and making the appropriate adjustments for tax produced an estimate of $171.6m for the NPV DORC.

The ACCC noted that APTPPL's approach is a simplification of the appropriate calculation of a NPV DORC. APTPPL's approach to modelling NPV DORC did not take account of the actual time when parts of the pipeline would have to be replaced. Instead it provided a proxy for this through the average remaining life of the pipeline. As NERA noted, the appropriate calculation of a NPV DORC would be the net economic value of future services provided by an optimally designed new pipeline less the net economic value of future services provided by the existing pipeline.[47] The APTPPL approach only approximated the appropriate value as it was assumed that the two pipelines (the existing and the optimal replacement) have the same service

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45 NERA, 'DORC calculations', pp. 15–7.

46 Sleeman Consulting, *'Optimised replacement cost and replacement schedule of Roma Brisbane pipeline (to meet future demand)',* 24 June 2006, pp. 14–8.

47 NERA, 'DORC calculations', p. 9.

potential. If the service potential of the new pipeline is greater than the existing pipeline, it was considered that the APTPPL approach would over estimate the true DORC.

NERA listed several areas in which the new pipeline delivers a service potential greater than the existing pipeline. These included increased public safety and a greater ability to service expected loads afforded by the route of the new pipeline, away from existing residential areas and closer to expected demand.[48]

The ACCC stated that it was aware that it is very difficult to quantify these service potential differentials and did not propose that APTPPL's model be adjusted in an attempt to do so. To the extent that differences in service potential exist an NPV DORC based solely on the difference in life cycle costs of the existing pipeline compared with an optimal pipeline will overstate the true value of DORC.

Straight-line apportionment of the optimal replacement cost pipeline

Before the Tribunal's decision on MSP, the ACCC's approach to calculating DORC was to discount the optimised replacement cost (ORC) on the basis of the ratio of the expected remaining life of the actual pipeline over the economic life of the optimal pipeline.

In its access arrangement information, APTPPL calculated a straight line apportionment of the ORC at $315m but it did not place any weight on this approach. In its modelling, APTPPL allocated the remaining asset lives for the asset classes of the current pipeline (pipe, compressor, easements and communication) to the dollar values associated with similar asset classes in the ORC estimate.

As with the NPV DORC, APTPPL used average asset class lives for pipelines and compressors.

In its draft decision, the ACCC considered that this approach should be refined by allocating the ORC to various individual assets in proportion to the historic costs of the individual assets (expressed in 2006 dollars). This was considered consistent with the rejection of the use of average lives as discussed above on NPV DORC.

In calculating the straight line DORC a smaller pipeline (based on current capacity) has been used rather than a pipeline with greater capacity that APTPPL used to calculate the NPV DORC. Straight line DORC is less complicated where future expansions do not have to be considered when determining the capacity of the optimal pipeline. Because APTPPL proposed that the reference service be based on the existing capacity, the ORC estimate for the straight line DORC is different from the estimated ORC for the NPV DORC which has to take account of future capital works on the existing pipeline to bring it up to the capacity of the optimal replacement pipeline.

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[48] NERA, 'DORC calculations', pp. 10. Note also that the ORCs presented by Venton and Sleeman are designed to current safety standards rather than to the safety standards of the existing pipeline. For example, the wall thickness for the pipe in the metropolitan section is thicker than that which currently exists.

Accordingly, the ACCC requested Sleeman to estimate an ORC for the existing pipeline based on its current licensed capacity (180 TJ/day). Sleeman designed a pipeline that could deliver the licensed capacity of the pipeline and estimated the cost to be $371m.[49] After reviewing Sleeman's analysis, Venton noted that while the Sleeman designed pipeline could deliver 180 TJ/day, it would not be capable of delivering the load that the pipeline actually delivered in 2005.[50]

Venton designed an optimal pipeline that could deliver the same service potential as the existing pipeline and estimated its cost at $427m (in $October 2005).[51] Sleeman subsequently adjusted his pipeline design to take account of the higher service potential of the pipeline over its licensed capacity, resulting in a revised ORC estimate of $422.7m (in $June 2006).

Both Venton's and Sleeman's final estimates are based on similar designs with similar overall costs. In view of the sizeable contingency factors surrounding such estimates, the ACCC considered the difference in the costs of the two estimates to be immaterial. It therefore accepted the Venton estimate, with the same exception as noted above for the ORC used in the NPV DORC approach: that the return during construction be calculated using the nominal WACC proposed by the ACCC in this decision, that is, 8.5 per cent.[52]

Apportioning the Venton estimate, according to the refined methodology discussed above, established a DORC of $295.84m (in $June 2006).

Other well-recognised asset valuation methodologies (s. 8.10(c))

In its draft decision, the ACCC noted that s. 8.10(c) of the code requires the regulator to consider the result from applying other well-recognised asset valuation methodologies in determining the ICB. APTPPL stated that it was not aware of any other well-recognised valuation methodologies that would be appropriate and are given substantial weight by regulators under the code.

The WA Court of Appeal in *Re Michael* Epic considered Epic's argument that the purchase price was relevant under 8.10(c) as representing the asset's market value and agreed with that argument. The sale price of the MSP was considered but not given much weight by either the ACCC or EAPL in setting the ICB for that pipeline. In that case, EAPL claimed that it had secured the pipeline on favourable terms and that the sale price from the government should not be the basis of the pipeline's value for the purposes of regulation. The ACCC did not seek to use the sale price for setting the ICB.

APTPPL bought a 15 per cent interest in the RBP in 2001 from Interstate Pipelines Pty Limited for $12.3m. APTPPL stated that the purchase transaction occurred in the context that:

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49 Sleeman Consulting, *'Optimised replacement cost of existing Roma Brisbane pipeline'*, 24 June 2006, p. 19.

50 APTPPL, *RBP Review – Sleeman's Optimised Replacement Cost*, p. 1.

51 ibid, p. 7.

52 The ACCC notes that this was not the WACC determined in the draft decision. It was an older figure which was not updated with the latest figure. The nominal WACC was 9.02 per cent.

- the vendor was exiting Australia and this was one of their few remaining assets
- APTPPL had a pre-emptive rights relating to the purchase
- there was no public or competitive process undertaken by the vendor.

For these reasons, APTPPL stated that this purchase price should not be given any weight.

APTPPL's reasons for rejecting the sale value of the 15 percent interest were not compelling. While Interstate Pipelines Pty Limited might not have been in a strong bargaining position, it would have been aware of the commercial value of the pipeline and the benefit to APTPPL of full control of the pipeline.

The ACCC estimated the ICB derived from this method to be approximately $165m.[53]

Advantages and disadvantages of each valuation methodology (s. 8.10(d))

In its draft decision, the ACCC noted that s. 8.10(d) of the code requires the regulator to consider the advantages and disadvantages of each valuation methodology applied under ss 8.10(a), 8.10(b) and 8.10(c). However, s. 8.10(d) does not guide the regulator on what criteria it should use to assess the advantages and disadvantages of each valuation methodology.

Accordingly, as in the MSP final decision, the ACCC has had regard to the s. 8.1 objectives in its consideration of s. 8.10(d). Consideration of the s. 8.1 objectives for the ICB is discussed later in this decision.

International best practice and impact on international competitiveness (s. 8.10(e))

In its draft decision, the ACCC noted that s. 8.10(e) of the code requires the regulator in setting the ICB to consider international best practice of pipelines in comparable situations and the impact on the international competitiveness of energy consuming industries. APTPPL made no comment on this section.

The West Australia Office of Gas Access Regulation (OffGAR) considered the issue of international best practice in asset valuation in its draft decision on the Dampier to Bunbury pipeline. It considered the practices in the UK and US, as these are the two countries with the longest history of energy regulation. The OffGAR concluded that the US regulators have traditionally relied on historical cost valuations, whereas UK regulators have relied on replacement cost methodologies such as DORC. The OFFGAR noted that UK regulators have in some cases adopted 'market valuation' approaches.

Regarding the Australian regulatory experience, the OFFGAR stated regulators have used 'DORC' as the starting point and in some instances discounted the DORC in accordance with some criteria balancing the interests of the service provider and users.

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53 Based on confidential asset price information provided by APTPPL adjusted for inflation and statutory accounts figures which included annual capex (covering expenditure on looping and the Peat lateral) up to 2004/05.

Typically, the criteria have been that regulated tariffs should not exceed existing tariffs. The OFFGAR concluded that there is no established or well accepted 'international best practice'.[54]

International experience (UK and US) suggested that both historical costs and valuations based on replacement costs should be considered.

Basis for past tariffs, economic depreciation and historical returns (s. 8.10(f))

In its draft decision, the ACCC noted that s. 8.10(f) deals with the basis on which tariffs have been (or appear to have been) set in the past, the economic depreciation of the covered pipeline, and the historical returns to the service provider from the covered pipeline is significant for the RBP.

APTPPL stated that there was insufficient information available to determine the basis on which tariffs were negotiated or to establish accurate identification of economic returns to the service provider over the life of the pipeline.

It further stated that:

> No capacity expansion has been funded through capital contributions by customers.' … Users have not funded expansions of the RBP. Users have paid tariffs for provision of services, including services provided by the expansions. While revenue from tariffs may have supported expansion of the pipeline, it is an incorrect characterisation to suggest that Users have funded, in the sense of financing, the expansion. APTPPL understands that the term "capital contribution" would more commonly be used where Users have treated payments as "capital" in their books.
>
> In general contracts with tariffs such as "compression charges" or "looping charges" were established when CSR Oil & Gas was the pipeline owner (i.e. they were established before 1988).
>
> APTPPL has not identified any detailed records of how such tariffs were negotiated, the information provided to users or how cost allocation was undertaken. [55]

Energex stated:

> Energex has made significant financial contributions towards the establishment and expansion of the RBP over the past 36 years.
>
> These include compression and looping surcharges, for the services provided through the expansions. A summary and a table showing these payments over time is included as confidential information in Appendix 1 (C).
>
> ENERGEX understands that APT does not consider any previous contributions from users to be Capital Contributions under the definition provided by the Gas Code. This may be arguable, however ENERGEX believes that the contributions provided by users to obtain additional capacity need recognition in a transparent manner in the revised Access Arrangement. [56]

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54 Independent Gas Pipelines Access Regulator, Office of Gas Access Regulation, WA, Draft decision*: Proposed access arrangement Dampier to Bunbury pipeline system*, 21 June 2001, part B, pp. 145–7.

55 APTPPL, *'Response to ACCC request for information dated 2/3/06 and 24/3/06'*, 7 April 2006, p.18.

56 Sun Retail Pty Ltd, Response to ACCC Issues Paper, 18 May 2006, p 10, cited as 'submission'.

As required by section s. 8.10(f) of the code, the ACCC considered the basis on which tariffs have been set in the past and the historical returns to APTPPL on its investment in expansion of the RBP. It has had access to historical and current contracts. These contracts were confidential and necessitated the ACCC's analysis being presented in a confidential appendix: Appendix D—section 8.10.

A number of historical contracts examined by the ACCC provided for payments over standard charges for transportation services. Moreover these payments were linked to capacity expansions undertaken by APTPPL, specifically all six compressors, looping sections 1 and 2 and part of looping 3. The result of this analysis was that the ACCC concluded that APTPPL had more than fully recovered, through past tariffs, the capital associated with these capacity expansions.

Reasonable expectations under the prior regulatory regime (s. 8.10(g))

In its draft decision, the ACCC noted that s. 8.10(g) of the code requires the regulator to consider the reasonable expectations of persons under the regulatory regime that applied to the pipeline before the commencement of the code.

APTPPL stated that under the prior regulatory regime, it was reasonable for APTPPL to expect that it could continue to charge tariffs established under the access principles or contracts. APTPPL did not state how these expectations would affect the ICB for the pipeline.

Before the introduction of the regulatory regime established in 1995 under Part 8 of the *Petroleum Act 1923*, tariffs were set through commercial negotiation. Following the amendments to Part 8 of the Petroleum Act, tariffs were set in accordance with the access principles or by negotiation, subject to the requirement for ministerial approval.

The previous regulatory regime concluded on 18 May 2000. However, a transitional phase existed until 29 July 2006 where the tariff elements remained derogated from the code provisions in favour of terms approved by the Queensland Government under the previous regime.

The ACCC concluded that the previous regulatory regime could not have given rise to any reasonable expectations that would bear upon the ICB of the pipeline under the current regulatory regime. Put simply, there is nothing in the previous regulatory regime that could lead to the expectation that a service provider would be entitled to charge tariffs determined under that regime once the transitional phase concluded. The access principles approved by the Minister contain no provisions that suggest that derogated tariffs should extend beyond the term of the derogation (that is, beyond 29 July 2006).

The economically efficient utilisation of gas resources (s. 8.10(h))

In its draft decision, the ACCC noted that s. 8.10(h) of the code requires the regulator to consider the effect of the ICB on the economically efficient use of gas resources. APTPPL made no comment on this section.

The ACCC considered that the economically efficient use of gas resources can best be achieved by setting an ICB that is consistent with the objectives in s. 8.1 of the code. In particular, the ICB should allow the opportunity for recovery of efficient costs,

replicate the outcomes of a competitive market and not distort investment decisions in gas transportation or upstream and downstream gas industries.

Comparability with the cost structure of competing pipelines (s. 8.10(i))

In its draft decision, the ACCC noted that s. 8.10(i) of the code requires the regulator to consider the comparability with the cost structure of pipelines that may compete with the pipeline in question (for example, a pipeline that may by-pass some or the entire pipeline in question). APTPPL stated that it was not aware of any proposal for a pipeline that may by-pass the covered pipeline. The ACCC agreed with APTPPL that because an ORC reflects the most efficient route and design of a replacement (or by-pass) pipeline, an ICB and tariffs reflecting that ORC should not lead to a result which encourages inefficient bypass.

The price paid for any asset recently bought by the service provider (s. 8.10(j))

In its draft decision, the ACCC noted that s. 8.10(j) of the code requires the ACCC to consider the price paid for any asset recently bought by the service provider and the circumstances of the purchase. APTPPL referenced the sale price relating to this section of the code.

For simplicity, in the draft decision, sale price was addressed under s. 8.10(c) other well-recognised asset valuation methodologies.

In addition to the historic cost less accounting depreciation, an ICB for an asset can be assessed on the basis of industry cost benchmarks. The nominal licensed capacity of the RBP has been expanded since 1998 by more than 40 per cent.

The cost of expansion was $97.6m ($2005) or approximately $460 000 per km. This compares with an estimated optimised replacement cost of $422.7m for the whole RBP or approximately $810 000 per km.[57]

The QGC submission noted that the ORC reflects a higher unit cost than in recent pipeline projects.[58] The ACCC agreed with this observation but noted that recent rises in the cost of line pipe and pipeline construction were apparent in both the Venton report commissioned by APTPPL and the report prepared by Sleeman for the ACCC.

Section 8.1 of the code requires the regulator in determining the reference tariff to consider the objectives underpinning the reference tariff. When these objectives conflict the regulator may determine the manner in which they are best reconciled taking into account s. 2.24 factors.

It is clear that the efficient construction costs have increased significantly since the capacity of the pipeline was expanded from 2000. However, basing the ICB of the

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57 This analysis is based on a comparison of the last four stages of looping measured against similar components detailed in the ORC developed by Sleeman Consulting. The cost per km of $810 000 is based on an adjusted ORC of $319.6m (which excludes the metropolitan section and several other non-applicable costs).

58 QGC, *Queensland Gas Company Limited Response Access Arrangement & Access Arrangement Information Roma to Brisbane Pipeline*, 18 May 2006, p. 4, cited as 'submission'.

pipeline entirely on current construction costs could mean that APTPPL would be able to achieve revenues that are not consistent with past efficient costs (s. 8.1(a) of the code).

Moreover, setting the reference tariff on the basis of current replacement cost of the asset may therefore require tariffs that are uneconomic for users and this would imply that the pipeline would not be replaced. This is inconsistent with s. 8.1(d) of the code which requires that tariffs should not distort investment decisions. In such circumstances the application of a replacement cost methodology is problematic.

More information on s. 8.10(j) considerations was contained in confidential appendix D—section 8.10.

Other factors the regulator considers relevant (s. 8.10(k))

In its draft decision, the ACCC noted that s. 8.10(k) of the code requires the regulator to consider other relevant factors in determining the ICB. APTPPL made no comment on this section. However, APTPPL's claim for equity raising costs at a level of 3.83 per cent of equity in the ORC used in the NPV DORC calculation has been assessed under this section. APTPPL referenced an ACG report prepared on behalf of ACCC to support its claim for this allowance.[59]

The recent AER Directlink draft decision also referenced this report stating that where the ICB has yet to be established, the ICB should reflect all costs, including a benchmark allowance for the cost of raising equity (subject to how the assets are financed).

If equity raising costs are allowed, ACG recommended the use of initial public offering (IPO) costs as a proxy for equity raising costs. ACG proposed a benchmark based on the median IPO transaction cost measured across a sample of seven infrastructure capital raisings. ACG also found that utility floats can be expected to have a lower transaction cost due to their generally stable and regulated cash flow streams.

ACG also recommended treating the cost of raising equity as part of the ORC value and depreciating it (along with other assets) to the DORC cost value.

The Directlink draft decision accepted the inclusion of equity raising costs because the ICB was being established for the first time. It accepted a median equity benchmark of 3.64 per cent[60] after updating ACG's analysis to include the Hastings Diversified Utilities Fund IPO.[61] Since then the data have been further updated to include initial public offers (IPOs) by Alinta, SP Ausnet and Spark. Consequently, the ACCC determined that the updated median of the equity raising costs was 3.77 per cent.

On that basis the ACCC proposed to use equity raising costs of 3.77 per cent in the calculation of the ORC.

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59 ACG, *Debt and equity raising transaction costs: report to the Australian Competition and Consumer Commission*, 2004, p. 61.

60 Directlink Draft decision p. 224.

61 ibid., p. 223.

ACCC's conclusions on the initial capital base

In its draft decision, the ACCC noted that establishing the ICB relies on the evaluation of, and the weight to be given to, each of the factors in s 8.10 (including choice of valuation methodology—historical cost and current replacement cost or deprival valuations). This task is intended to be guided by s. 8.1.

A wide variation between historical cost and current replacement cost or deprival valuations is to be expected. However, for the RBP, the variation was particularly wide reflecting the fact that pipeline construction costs have escalated in recent years consistent with a buoyant resources sector.

This meant that the replacement of the actual pipeline would cost considerably more than the historical cost of the pipeline or capacity created by recent extensions and expansions.

The ACCC stated that it was worth noting that the value determined for ORC was a notional value only. The pipeline was not actually being replaced. As the ORC is an input into the ICB, caution should be exercised in placing too much weight on short-term increases in costs that may not be sustainable over the medium to long term.

This is important in establishing the ICB under the code as once the ICB is set it cannot be re-determined at a later date. Moreover, in a competitive market assets would not be constructed or replaced if their cost was out of line with prices users would be willing to pay.

In establishing the ICB, the ACCC considered each of the s. 8.10 factors in light of the objectives contained in s. 8.1 of the code.

Section 8.1(a) provides that a service provider should be given the opportunity to recover its efficient costs. The WA Court of Appeal observed that 'the DAC and DORC methodologies have an acceptability for the purposes of the concept of economic efficiency'.[62]

Section 8.1(b) states that the reference tariff and reference tariff policy should be designed to achieve the objective of replicating the outcome of a competitive market. The WA Court of Appeal noted the complementary nature of the objectives in ss. 8.1(a) and 8.1(b) in view of the interrelationship between economic efficiency and competition in a market.[63]

In the MSP final decision, the ACCC argued that an ICB based on DORC, which represents the forward-looking efficient costs of delivering services, would be consistent with s. 8.1(b).[64] In theory, prices based on DORC represent the maximum that would be observed in a competitive market providing that a consequent price shock would not make replacement of the asset uneconomic. Accordingly, the ACCC

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62 [2002] WASCA 231, para. 176.

63 [2002] WASCA 231, para. 128.

64 MSP Final decision, p. 68.

considered that DAC and/or past sale price were less likely to meet this objective than DORC.

Section 8.1(c) states that the reference tariff and reference tariff policy should be designed to achieve the objective of ensuring the safe and reliable operation of the pipeline.

The WA Court of Appeal interpreted this provision as requiring that the revenue stream should be sufficient to meet the safety and reliability needs as and when it is necessary.[65] This interpretation suggested to the ACCC that this objective is directed more at operating expenses and capital expenditure with little direct relevance to the establishment of the ICB.[66]

The objective of section 8.1(d) of the code is that investment decisions in pipeline transportation services and upstream and downstream industries should not be distorted by the reference tariff or reference tariff policies.

The WA Court of Appeal dismissed submissions that this provision would be met by setting tariffs solely in accordance with the forward-looking efficient costs without having regard to past investment decisions. According to the WA Court of Appeal to ignore past investment may have adverse effects on future investment. Accordingly it is open to the regulator to take into account the actual investment of the owner in the pipeline.

For this reason APTPPL's submission that no weight should be given to DAC or the 1991 sale of a 15 per cent interest in the pipeline was not supported.

While it was not proposed to base the ICB on either of these methodologies, it was noted that the amount proposed in the draft decision for the ICB was considered by the ACCC to allow APTPPL to recover more than its actual investment (depreciated) in the pipeline.

The objective of s. 8.1(e) of the code is efficiency in the level and structure of the reference tariff. Section 8.1(f) requires the reference tariff policy to provide for incentives to the service provider to reduce costs and develop the market for reference and other services.

In the MSP final decision, the ACCC concluded that the objectives contained in ss. 8.1(e) and 8.1(f) form part of the broader assessment of the reference tariff and reference tariff policy, rather than the ICB alone. Nevertheless, the ACCC noted in its decision that 'efficiency in the level of the reference tariff' is interrelated with the concept of 'efficient costs' in s. 8.1(a) and also the notion of replicating the outcomes of a competitive market (s. 8.1(b)).[67] Moreover, if the ICB were set at a level above

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65 [2002] WASCA 231, para. 146.

66 Nevertheless, a plausible interpretation is that a value of the ICB that is set too low, for example below the level of the service provider's investment, may encourage the service provider to cut costs to increase its return on its investment to the detriment of the integrity and safety of the pipeline.

67 MSP Final decision, p. 73.

efficient costs and that which would be observed in a competitive market, and therefore incorporated monopoly rents, a service provider would have less of an incentive to reduce costs and develop the market. Accordingly, for the reasons outlined above, the ACCC considered that a DORC value can be consistent with these two objectives provided current construction costs are not above the value that users would place on the service.

In the past, for those regulated pipelines for which the ACCC has set the ICB equal to DORC, it has used the straight-line approach to depreciation. APTPPL has proposed an NPV DORC methodology rather than the straight-line approach.

Either approach would be acceptable if they were equally likely to produce an ICB that was consistent with the principles in s. 8.1 of the code. However, the ACCC did not believe that the use of NPV DORC, in this instance, would produce such an outcome for the reasons given below.

There remains a high degree of uncertainty surrounding the estimation of parameter values that are required by the NPV DORC approach. This means that the NPV DORC methodology is highly prone to errors or differences of opinion in the estimation of these parameter values. This conclusion was expanded on in work recently commissioned from NERA to provide a comparison of the straight-line and the NPV DORC methodology.

NERA concluded that as a proxy for economic DORC, NPV DORC has two practical disadvantages relative to straight-line DORC: it is informationally and conceptually more complex; and it can only be implemented using information that is asymmetrically held by an interested party (i.e., the regulated business).[68]

These practical disadvantages were evidenced in the ACCC's assessment of several of APTPPL's assumptions and inputs in its NPV DORC calculations, including the choice of discount rate, the treatment of taxation and the expansion and replacement schedule for the actual pipeline. Correcting for these differences resulted in a $172m variance between the ACCC's and APTPPL's NPV DORC valuation ($171.6m compared to $342.6 m).

The extent of this variance led the ACCC to conclude that it can have little confidence that the use of NPV DORC is likely to produce an ICB figure that is consistent with the principles in s. 8.1 of the code. The ICB determined using this method could lead to tariffs significantly above (or below) the tariffs that would meet the objectives in s. 8.1(a) and (b) in particular.

By contrast, straight-line DORC is relatively transparent and simple. The only information required is the cost of a pipeline that provides the same services as the actual pipeline (ORC), the remaining life of the actual pipeline and the economic life of the optimised replacement pipeline.

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68 NERA, *Comparison of DORC estimation procedures A report for the ACCC*, 25 July 2006, p 1, cited as 'Comparison of DORC estimation procedures'.

If this approach to DORC is used then the scope for argument is reduced to the value of the ORC and the remaining life of the actual pipeline and economic life of the optimised replacement pipeline. This also largely eliminates relying on information that is held asymmetrically (namely future expenditures on the actual pipeline and changes in the pipeline's operating costs).

While the ACCC acknowledged in its draft decision that this was a less sophisticated approach (in a conceptual sense) than NPV DORC, it concluded that it did not mean that it would necessarily produce a less accurate estimate of DORC.[69]

At the same time, use of this methodology substantially reduced the risk that the ICB would be skewed (in either direction) by errors or differences of opinion in the estimation of parameter values, such as long-term estimates in differences in costs (both capital and operating costs), operating risks, the rate of technological change and the timing of future capital expenditure.

It also reduced the complexity and improved the transparency and predictability of the regulatory process. Each of these factors meant that the use of straight-line DORC was much more likely to result in tariffs that satisfy the principles in s. 8.1.

Considering these factors, the ACCC concluded that the use of straight-line DORC was also justified under s. 2.24. This approach reduced complexity, while improving transparency, predictability and accuracy which will promote the legitimate interests of the service provider as well as the interests of users and prospective users. These are also relevant factors that may be considered in their own right under s. 2.24(g).

In its decision on the access arrangement for the MSP, the Tribunal stated that the DORC methodology it had chosen (NPV DORC) will not always be appropriate for setting an ICB for a pipeline. The Tribunal stated that the ICB should be determined in the context of a particular application considering the particular facts applicable.[70] The ACCC considered that the facts in this case suggested that the use of NPV DORC, compared to straight-line DORC, was significantly more complex, and produced an outcome that was more uncertain.

For these reasons, the use of NPV DORC to establish the ICB was not considered appropriate and it was considered the ICB should instead be assessed using straight-line DORC.

The ACCC has also considered the basis on which tariffs have been set in the past and the historical returns to APTPPL on its investment in expansions of the RBP (s. 8.10(f)).

It had access to historical and current contracts. These contracts are confidential and this necessitated the ACCC's analysis being presented in a confidential appendix, appendix D—section 8.10.

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69 ibid. NERA states that it is not possible to conclude that one or the other is, in general, a more accurate estimate of economic DORC without further detailed work. Even then, it is likely that the available data will not yield conclusive results.

70 Application by East Australian Pipeline Limited [2005] ACompT 1 (18 March 2005).

A number of historical contracts examined by the ACCC provided for payments over and above standard charges for transportation services. These were linked to capacity expansions undertaken by APTPPL, specifically, all six compressors, looping sections 1 and 2, and a proportion of looping 3. The ACCC concluded from this analysis that APTPPL has more than fully recovered through past tariffs the capital associated with these capacity expansions. The RBP is contracted to operate at close to its capacity, and has only been expanded when underpinned by contracts. In such circumstances it was reasonable to expect, and there was some evidence to support the view, that past tariffs have been set on the basis of fully recovering the costs of expansions through the contracts associated with those expansions.

APTPPL has stated that users did not finance expansions. This is correct in the sense that users who have made contributions to the construction of the expansion do not have property rights to those expansions. Nevertheless, users have fully paid for the costs of the expansions through tariffs under foundation contracts and this is akin to users financing the expansions.

To allow APTPPL to continue to receive a return on these assets would result in an inefficiently high level of tariffs (s. 8.1(e)) and in turn this could distort investment decisions (s. 8.1(d)). Accordingly, the ACCC concluded that the ICB should not reflect any value for the assets associated with these expansions.

The code states that normally the ICB should fall within the range of DAC and DORC. Consideration of the objectives in s 8.1 of the code supports this position. It would be rare that consideration of all these factors would indicate that one single figure (or a very narrow range of figures) would be the appropriate figure for the ICB. Given that a range of figures for the ICB is feasible, the factors in s. 2.24 of the code can also provide guidance to the regulator in determining the ICB. In particular s. 2.24 requires the regulator to take into account the interest of the service provider and users and prospective users.

The Federal Court considered the application of s. 8.10 of the code and noted that:

> Section 8.10 of the Code recognises that the values derived from the application of the valuation methodologies referred to in subpars (a), (b) and (c) may be adjusted or varied depending on the relative consideration and extent of that consideration given to the factors found in sub para (e) to (k) of s. 8.10.[71]

The ACCC considered that the circumstances of the RBP do not entirely match that of the MSP. It considered it appropriate to adjust the forward looking estimate of the replacement cost of the pipeline to take account of past contributions from users.

The ICB proposed in the draft decision provided a fair balance between the interests of the service provider and users and prospective users.

It was considered that it would allow the service provider to more than recover its investment in the pipeline (as defined by DAC or recent sale price) and would take into account the contributions of users towards the costs of expansions.

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[71] Australian Competition and Consumer Commission v Australian Competition Tribunal [2006] FCAFC83 (2 June 2006), paragraph 186.

Derivation of ICB from DORC

For the purposes of calculating the ICB more weight has been given to DORC than DAC, given the age of the RBP and its progressive expansion through looping (which means the current configuration differs significantly from the optimal pipeline).

Table 2.2.5.1 shows the basis for deriving the DORC of $295.84m from the ORC of $441.0 m[72] and the ACCC's proposed ICB of $250.63m (which includes an allowance for equity raising costs).

The proportion of the original costs (in 2006 dollars) for each pipeline segment and compressor to their total costs has been used as the basis for allocating the ORC to each of these assets.

The DORC for each asset was then derived by depreciating the ORC by the ratio of each asset's remaining life to the life of a new pipeline. To calculate the ICB of $250.63m the ACCC has subtracted from the DORC those expansions which have been fully funded by users (all compressors and two loopings) and the looping that has been partly funded by users.

Further explanation is given by way of an example in the box below.

Allocation of DORC to various assets and derivation of ICB from DORC

The ORC for the optimised replacement pipeline (excluding compressors, easements and communications) is estimated at $374.2m. (The equivalent DORC is $261.1m.) The $374.2m is then allocated to the original pipeline, the various loopings and the Peat lateral.

For example, the actual costs of the original pipeline (in $2006) is $82.1m which is 36.2 per cent of the total actual costs of $226.9m (in $2006). Therefore $135.3m (36.2 per cent of the pipeline ORC of $374.2)[73] has been allocated to the original pipeline. A similar allocation methodology has been applied to compressors.

The ICB for the RBP is the DORC for the overall pipeline less the DORC allocated to each of those assets funded by users. (Looping 3 has been partially funded by users and hence the DORC of $20.6m has been reduced proportionately to $14.3m.)

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[72] In fact the draft decision had $428.14m at this point. This was the October 2005 ORC figure as proposed by APTPPL but then modified by the ACCC as noted in the draft decision. This figure was then inflated to give the June 2006 figure used in the table.

[73] Numbers may be imprecise due to rounding.

Table 2.2.5.1: ACCC proposed ICB calculations by segments

	Life (years)	R/Life[a] (years)	Cost ($2006)	ORC ($m)	DORC ($m)	ICB ($m)
Pipeline				374.2	261.1	234.6
Compressors				48.6	18.7	0.0
Easements				13.8	13.3	13.3
Communications				5.0	3.3	3.3
Sub-total				441.5	296.4	251.1
Less linepack				0.5	0.5	0.5
Total				441.0	295.8	250.6
Allocation						
Pipes						
Original	60	23	82.1	135.3	38.9	38.9
Looping 1	80	62	7.2	11.8	9.1	0.0
Looping 2	80	64	8.3	13.7	11.0	0.0
Looping 3	80	72	13.9	22.9	20.6	14.3
Looping 4	80	75	19.0	31.3	29.4	29.4
Looping 5	80	77	58.8	97.0	93.3	93.3
Looping 6	80	77	10.4	17.2	16.5	16.5
Lateral	80	75	27.3	45.0	42.2	42.2
Subtotal			226.9	374.2	261.1	234.6
Compressors						
Dalby	35	11	1.3	7.9	2.5	0.0
Kogan	35	11	0.8	4.7	1.5	0.0
Oakey	35	12	1.0	6.0	2.1	0.0
Condamine	35	13	1.4	8.4	3.1	0.0
Yuleba	35	15	1.8	10.5	4.5	0.0
Gatton	35	16	1.9	11.1	5.1	0.0
Subtotal			8.3	48.6	18.7	0.0
Easements	1000	963		13.8	13.3	13.3
Communications	15	10		5.0	3.3	3.3
Less linepack				0.5	0.5	0.5
Total				441.0	295.8	250.6

Notes: Some columns may not add up due to rounding

(a) R/Life = Remaining life.

Draft decision amendment 01

Before APTPPL's revised access arrangement for the RBP can be approved, the ICB must be set at $250.63m.

2.2.6 Submissions in response to the draft decision

The only submission received on this issue was from APTPPL. APTPPL did not accept amendment 01 as it considered it unreasonable in all the circumstances.

Calculation of DAC (s. 8.10(a))

APTPPL considered that the draft decision's determination of DAC was in error. DAC must be calculated using economic depreciation and it was not sufficient to use accounting deprecation as a proxy for economic depreciation.

APTPPL concluded that there was insufficient information to make an accurate determination of DAC for the RBP, and provided a number of examples:

- The actual capital costs of the RBP were unknown and that the historical capital expenditure information contained discrepancies and may not be comprehensive.
- The reasons for previous revaluations or write-downs were not known. The draft decision has deducted an amount from the current DAC to reflect revaluations known to APTPPL. However information relating to those revaluations was not complete.
- Comprehensive information which would enable the accurate calculation of economic depreciation over the life of the pipeline was not available, such as detailed information as to costs, revenues and return expectations over the life of the pipeline, including the period when the pipeline was owned and operated as part of a "bundled" business.

APTPPL stated that the DAC cannot be accurately determined, but that it could be up to $253.3m. It maintained that there was is nothing in the draft decision to demonstrate that the ACCC was able to be confident that its calculated DAC value was, in fact, the DAC within the meaning of the code. Accordingly, the ICB proposed by the draft decision may be less than the DAC. In these circumstances the draft decision may have proposed, without proper reason, an ICB that was outside the normal range of DAC and DORC.

ORC

APTPPL said there is no clear reason why the ACCC used an existing capacity ORC for the straight line DORC and a forecast capacity ORC for the NPV DORC. It proposes to use the existing capacity ORC for the NPV DORC calculation.

It says that the ACCC's adjustments for financing costs in the estimation of the ORC ($5.1m) and equity raising costs ($110 000) are unreasonable, given that the ACCC considered the differences between the ORC estimations by APTPPL and Sleeman (on behalf of ACCC) of $5m to $10m to be immaterial. It contends that these adjustments also imply a very high level of finesse in cost estimation that does not exist.

DORC

APTPPL stated that the draft decision was incorrect to imply that the NPV DORC methodology effectively originated with the Tribunal's decision on the MSP.

APTPPL stated that the Tribunal in the MSP case removed all uncertainty as to the proper meaning of DORC (that is, it should be the cost-based NPV method) and that the Federal Court decision did not affect the conclusion that straight line DORC is 'too crude' a methodology and that a serious effort must be made to calculate NPV DORC. It characterises the cost-based NPV DORC as 'rigorous' and the straight line DORC as 'a proxy'.

APTPPL does not agree with the use of a straight line DORC. However, if one is to be used, APTPPL rejects the ACCC's depreciating the ORC on the basis of the ratio of the expected remaining life of the actual pipeline over the economic life of the optimal pipeline. Instead it prefers the remaining life of the actual pipeline over the economic life of the actual pipeline.

APTPPL accepted the ACCC's approach to modelling individual asset lives (rather than averaging) and to modelling tax effects (rather than using a pre-tax WACC). APTPPL proposed, as the basis of its cost-based NPV DORC, to replace its forecast capacity ORC with current capacity ORC. It said this will avoid the disagreement between the ACCC and APTPPL over the cost of expanding the existing pipeline. APTPPL presented this change as an agreement with an ACCC position. Its revised proposed DORC is $345.7m. APTPPL continued to argue that the discount rate should be the WACC and the HNE (rather than incumbent) perspective should be used. It submitted that consistency between the DORC model and the revenue model is not necessary.

NPV DORC

APTPPL states that there are two principal points of difference between APTPPL and the ACCC in relation to the calculation of NPV DORC, the perspective (HNE or incumbent) and the discount rate, which are discussed below. APTPPL states that these are matters of principle and, once they have been decided, the feasible range of NPV DORC would be much narrower than that suggested by the draft decision.

Hypothetical New Entrant vs. incumbent

APTPPL stated that NERA and the Tribunal accepted there was a nexus between the hypothetical new entrant test (HNET) and DORC as a valuation methodology and if DORC is to be consistent with the HNET, then DORC must be determined from the HNE's perspective.

APTPPL contends that the calculation of DORC and setting of the ICB (whether or not equal to DORC) are distinct steps required by the code and any perceived need for consistency with the current revenue modelling approach was not relevant.

APTPPL said that there is no credible scenario whereby the incumbent would be placed in the position of having to decide between buying the existing pipeline (which it already owns) and building a new/replacement pipeline. The HNE construct, on the other hand, is straight forward and plausible. Despite the lack of a feasible 'incumbent

replacement' scenario, the draft decision clearly regarded the distinction between the incumbent and HNE perspectives as important. That being the case, it was inconsistent that the draft decision should then propose to adopt a proxy (i.e. straight line DORC) that is independent of ownership.

APTPPL discussed the relationship between the HNET (which considers the HNE's revenue in one year as a benchmark for the existing pipeline in that year) and an NPV of revenues based DORC, and between an NPV of revenues based DORC and an NPV of costs based DORC to reinforce the connection between the HNET and DORC.

Discount rate: WACC vs. risk free rate

APTPPL contended that the use of the risk free rate to discount future costs assumes that all costs are certain, and this is not true. It also referred to work done by CRA which gives an algebraic proof that the discount rate for costs should be the WACC.

APTPPL noted NERA (for the ACCC) included a paper prepared by Professor Bruce Grundy but that in the draft decision there was no recognition that EAPL submitted what APTPPL considers to be a strong rebuttal of Professor Grundy's position in the course of the MSP appeal and that the Tribunal held that NPV DORC should be calculated using WACC.[74]

The complexities advanced by NERA and the ACCC

NERA and the ACCC argued that the calculation of the NPV cost-based DORC was subject to a number of complicating factors. APTPPL did not accept these factors as valid or as a reason for what it considers amounts to abandoning a rigorous approach.

Expansion

APTPPL noted that the ACCC's consultant's expansion program for the RBP is different to and has higher capital costs than APTPPL's three stage expansion from 2007 to 2011 costing $115m. This alternative expansion program included expenditure of $27m in 2005–06 and $130m in 2006–07. APTPPL said this expenditure did not occur and will not occur in the remainder of the identified period. APTPPL stated that, while it is possible to reasonably estimate the timing and quantum of such expansion costs, the alternative approach is to adopt the existing capacity ORC as it removes the need to identify these costs and then deduct them from the calculation of NPV DORC. Therefore APTPPL said it has adopted the use of the existing capacity ORC for the calculation of NPV DORC and this has the benefit of alignment with the approach adopted in the draft decision to the calculation of straight line DORC.

Straight line DORC

In APTPPL's view simplicity and precedent are inadequate bases for adopting straight line DORC rather than NPV DORC.

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[74] Although it was recognised that this particular aspect of the Decision was not to be taken as establishing a general point of principle. See APTPPL, *Response to the Draft Decision on Proposed Access Arrangment For Roma Brisbane Pipeline*, attachment 1, p. 58, cited 'Response to the Draft Decision'.

If a straight line approach to DORC is to be used, APTPPL rejects the ACCC's depreciating the ORC on the basis of the ratio of the expected remaining life of the actual pipeline over the economic life of the optimal pipeline. Instead it prefers to use the ratio of the remaining life of the actual pipeline over the economic life the actual pipeline. Under this approach the 'straight line DORC' value for the RBP is calculated as $312.6m.

Other valuation methodologies and factors to be considered

No new evidence has been raised by APTPPL on other valuation methodologies and factors other than as outlined below.

Section 8.10 (g) - Reasonable expectations under the prior regulatory regime

APTPPL noted that the draft decision (p27) states that

> there is nothing in the previous regulatory regime that could lead to the expectation that a service provider would be entitled to charge tariffs determined under that regime once the transitional phase concluded.

APTPPL submitted that this may demonstrate a failure to understand the prior regime, and the expectations which existed under that regime. The previous regime for purposes of clause 8.10(g) is the regime that preceded the code – that is the regime established in 1995 under Part 8 of the *Petroleum Act 1923*.

APTPPL submitted that the previous regime did not contemplate a transitional phase and there was nothing in that regime to create any expectation other than the continuation of the Act, and therefore APTPPL could reasonably expect the continuation of the approach to approving tariffs that applied between 1995 and the commencement of the code in 1998.

APTPPL submitted that there was no basis for the suggestion in the draft decision that the expectations to be considered under section 8.10(g) are expectations as to what would happen once the Petroleum Act regime ceased. It considered that the section is directed at recognising the expectations which interested parties had under the regime – it does not direct an inquiry as to what interested parties may have expected would apply once a different regime came into effect. APTPPL considered that the ACCC's construction was artificial and suggested an attempt to avoid recognition of the nature of the expectations under the regime established by the Petroleum Act.

APTPPL submitted that the expectations of parties under the prior regime were that tariffs generally consistent with those in place would continue (which were agreed between the customer and APTPPL, and/or approved by the Minister). APTPPL submitted that this view was strongly supported by the fact that there was relatively little comment made in submissions by interested parties, particularly users who were users under the prior regime, on the level of tariffs proposed by APTPPL.

APTPPL stated that recognition of its expectations in establishing the ICB can be broadly achieved by establishing tariffs similar to current tariffs. The tariffs in the proposed access arrangement broadly align with the current tariffs and APTPPL considered that an ICB consistent with the continued recovery of those tariffs was warranted.

Section 8.10 (j) - price paid for any asset recently bought by the service provider

APTPPL stated that there was no basis for the draft decision's conclusion that tariffs based on a replacement cost valuation of the pipeline would be uneconomic for users. The reference tariffs proposed by APTPPL were not based on current replacement costs (although they were based on NPV DORC which takes as its starting point the current replacement cost of the assets) and were broadly consistent with current tariffs. These current tariffs were said to be demonstrably affordable.

Capital contributions

APTPPL believed the draft decision's analysis and conclusion as to the existence, quantum and treatment of past 'capital contributions' was flawed.

Due to the age of the pipeline, and the various changes of ownership and ownership structure that have occurred over the years, there was a lack of comprehensive financial information related to the cost of the original construction and early expansion of the RBP, the rate of return expected on the original and subsequent capital, and the period over which the original and subsequent capital was expected to be recovered. Accordingly, APTPPL states that it was not possible for the ACCC to conclude with any certainty that APTPPL had recovered or 'more than fully recovered' the capital the draft decision has assumed, or the capital which was in fact incurred. The uncertainty as to this was reflected in the language of the draft decision – it is 'reasonable to expect' and there is 'some evidence'. This makes clear that the matter was not without significant doubt, and was clearly insufficient to warrant reducing the ICB by 16 per cent.

APTPPL also submitted that the incorporation of customer contributions into the derivation of the ICB raised several issues in relation to the proper interpretation of the code. These related to whether such an approach is inconsistent with the express treatment of capital contributions under section 6, and whether it is permitted or appropriate under s. 8.10 to reduce the ICB to reflect contributions which may or may not have occurred. It may also prevent the service provider from earning a stream of revenue that recovers the costs of the pipeline over its life (code s.8.1 (a)).

APTPPL also referenced a report prepared by Infrastructure and Regulation Services (IRS) on behalf of APTPPL. This report detailed the outcomes of an IRS desktop review of certain regulatory decisions in a number of jurisdictions on the treatment of historic capital contributions in setting the ICB. The report concluded that:

> In summary, our review did not uncover any instances in which the economic regulator applied capital contributions to reduce the Initial Capital Base of a regulated gas or electricity transmission asset.[75]

[75] APTPPL, *Capital contributions Precedent in setting the Initial Capital Base of regulated transmission assets*, p 2.

Conclusions on ICB

APTPPL concluded that the ICB as calculated in the draft decision was unreasonable and should be adjusted as follows:

- ORC values should be re-adjusted to align with APTPPL's proposal in relation to construction financing costs and equity raising costs.
- NPV DORC should be adopted.
- If the ACCC believes NPV DORC cannot be done, and wishes to adopt a simpler solution then the straight line adjustment approach used should be consistent with APTPPL's approach which would yield a figure of $312.6m.
- Adjustments for capital contributions should not be made as information regarding these contributions is incomplete and uncertain, such an adjustment may well be outside the scope of section 8.10, and is inconsistent with the arbitration regime established under section 6 of the code.

APTPPL submitted that the ICB for the RBP should be NPV DORC, calculated at $345.7m.

2.2.7 Final decision

Overview

This overview provides a high level summary of the ACCC's conclusions on the ICB. It is intended to provide a guide to this section of the final decision document.

The ACCC's assessment which is discussed in this section must be considered in the context of the information and assessment provided elsewhere in this final decision and in the draft decision.

The second part of this section provides the ACCC's conclusions on the DAC. While accepting that there are data limitations, the ACCC concluded that it was possible to determine a DAC estimate ($108.3m) of sufficient accuracy for the purposes of determining the ICB.

The third part provides the ACCC's conclusions on the DORC. Key issues covered include:

- whether the ORC should be based on existing capacity rather than forecast capacity
- the discount rate to be applied in NPV DORC calculation
- the perspective for tax analysis
- expansion of the existing pipeline
- APTPPL's revised model
- NPV DORC amount and
- calculation of straight line DORC

In short, the ACCC considers the use of an ORC based on existing capacity to be inappropriate when calculating NPV DORC and has confirmed the use of an ORC based on forecast capacity as used in the draft decision. It also confirms its conclusion

in the draft decision that the appropriate discount rate to use for costs under the NPV DORC methodology is the risk free rate and that the necessary tax perspective (given the approach taken in the revenue model) is that of the incumbent. Similarly, it concludes that the impact of forecast expansions of the existing pipeline needs to be accurately reflected in the NPV DORC calculation and that the difference in service levels (between the existing and optimal pipelines) is a relevant consideration in calculating the NPV DORC. The ACCC has determined the NPV DORC as being $170.6m.

The ACCC has also confirmed its conclusion that the NPV DORC methodology in this instance provides an inadequate basis for establishing DORC for the purposes of setting the ICB. It has concluded that the straight line approach achieves code objectives. The ACCC confirms its method of calculating straight line DORC and has determined it as being $296.4m.

The fourth part of this section considers the basis for past tariffs, economic depreciation and historic returns for the RBP. The ACCC has confirmed its conclusion that users have made contributions in support of expansions to the RBP and that the cost of these expansions ($45.3m) should not be included in the ICB. While the ACCC accepted that there may be merit in APTPPL's submission that any compensation to users for past contributions should be through the dispute resolution process available under s. 6 of the code it concluded that there are sufficient uncertainties about such an approach to limit its effectiveness in practise.

The fifth part considers reasonable expectations under the prior regulatory regime. The ACCC does not accept that this factor in this instance requires the ICB to be set so that it is consistent with the continued recovery of the tariffs which were set under the previous regulatory regime.

The final part provides the ACCC's conclusions on the ICB. The ACCC has determined the ICB as being $251.1m.

The ACCC commissioned NERA Consulting to provide advice on APTPPL's NPV DORC proposal and on CRA International's report for APTPPL in response to the draft decision. NERA Consulting is an independent economic consultancy with expertise in regulatory matters. In particular, NERA Consulting has contributed to the development and understanding of the NPV DORC methodology through its work for the ACCC with respect to the MSP matter in both the Tribunal and Full Federal Court proceedings.

Depreciated actual cost (s. 8.10(a))

The ACCC notes that APTPPL has not provided any new evidence in its submission to the draft decision as to why it considered DAC should be calculated using economic depreciation. In its draft decision, the ACCC noted that the Western Australia Court of Appeal in *Re Michael* observed that in calculating the DAC it is usual to take the net book value and to depreciate this in line with accounting standards.[76]

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[76] RBP, Draft decision, p. 16.

The ACCC notes that APTPPL has maintained its position that there was insufficient information to make an accurate determination of DAC using economic depreciation. It also notes that APTPPL maintained that the historical capital expenditure information provided to the ACCC contained discrepancies and may not be comprehensive or complete.

In particular, APTPPL noted that the ACCC deducted an amount from the current DAC to reflect revaluations known to APTPPL. While the ACCC accepts that it had to make assumptions to calculate the depreciated value of the revaluations ($25.4m at June 2005),[77] it remains confident that its assumptions are reasonable. Further, the ACCC notes that if the full amount of the revaluations was subtracted from the depreciated book value, the DAC would be $98.8m rather than $108.3m.

The ACCC maintains its position that DAC should be calculated using accounting depreciation and rejects APTPPL's contention that the ICB proposed by the draft decision may be less than the DAC.

Depreciated optimised replacement cost (s. 8.10(b))

The ACCC notes that APTPPL has accepted the use of a post tax WACC, the modelling of tax concessions separately and the treatment of each asset individually with respect to remaining lives for calculating the cost based NPV DORC.[78] APTPPL claims that the differences in the service potential of the optimal and existing pipelines are not great. As discussed in the draft decision, substantial differences in service potential are likely. The ACCC finds APTPPL's arguments unconvincing. In short, APTPPL has not responded to various points identified by NERA and discussed in the draft decision and its submission contains a number of unsubstantiated assertions.[79] However, the extent of the differences does not need to be resolved here as the ACCC is not seeking to incorporate them into the analysis. Nevertheless, to the extent that they do exist, the NPV DORC model will overstate the true DORC valuation. The ACCC considers that there are differences in the service potentials of the optimal replacement pipeline and the pipeline that has been expanded and that it should be acknowledged that the NPV DORC value is biased in favour of the service provider.

ORC

In its *Response to the draft decision*, APTPPL proposed to use an existing capacity ORC for the NPV DORC calculation. As APTPPL has noted[80] it has previously argued for a forecast capacity ORC in the context of a cost-based NPV DORC. In the draft decision the ACCC accepted that a forecast capacity is the appropriate approach to the valuation of the ORC in this context (a 'forecast capacity ORC'). The ACCC did not elaborate on this position because APTPPL and the ACCC agreed on this approach and

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77 RBP, Draft decision, pp. 16.

78 The ACCC notes that APTPPL considers the ACCC approach (individual asset lives) is 'also valid' ('Response to the Draft Decision', p. 8). The ACCC does not accept this characterisation. It considers the averaging of the asset lives is not valid for the reasons set out in the draft decision.

79 NERA, *Critique of Responses to RBP ICB Draft Decision*, November 2006, p. 20-23, cited 'Critique'.

80 APTPPL, 'Response to the Draft Decision', p. 11, citing APTPPL, *Further Information Provided to ACCC*, 21 February 2006, p. 2.

it was not contentious. APTPPL now wishes to use an ORC based on existing capacity (an 'existing capacity ORC'). The ACCC considers this to be inconsistent with the NPV DORC approach.

The NPV DORC approach compares the present values of the two sets of costs[81] associated with providing a stream of services by the existing pipeline and by an optimal replacement pipeline. This is a forward looking concept. The stream of services will be delivered into the future. The costs will be incurred into the future. In order to determine an optimised replacement pipeline it is necessary to take into account the nature and extent of relevant future services for which it is optimal to supply. Thus it is necessary to identify the relevant future services that would be optimally supplied and to design the replacement pipeline in order for it to be able to supply these at lowest cost.

The ACCC considers it reasonable, for the purposes of establishing the ICB, to assume that the RBP will be covered for its economic life. The regulated pipeline will be the current pipeline plus any expansions of that pipeline (unless APTPPL proposes that an expansion not be covered and the ACCC agrees to this proposal) and any extensions APTPPL elects to be covered. APTPPL proposes for the current access arrangement period that services available using any expanded capacity built during the period will be provided on a negotiated basis and may not be offered at the reference tariff. However, any expansions built during the forthcoming access arrangement period will, subject to the relevant code provisions, be able to be included in the capital base at the time of the next revisions to the access arrangement. Thus it is reasonable to expect that any expansion will be subject to the reference tariff for most of its life. Therefore the ACCC considers it appropriate that the NPV DORC be based on assumptions that take this into account, and that means the use of a forecast capacity ORC.

As the resulting optimal pipeline has more capacity than the existing pipeline this will increase the ORC component of NPV DORC. However, the fact that the existing pipeline will need to spend on expansion projects to provide the same services will increase the other side of the DORC equation. The net effect will be a lower DORC to reflect the fact that the cost of meeting demand growth on the existing pipeline will be more (in NPV terms) than the costs of building efficient extra capacity into the ORC.

Adopting an existing capacity ORC and ignoring expansion cost on the new pipeline would have the effect of ignoring the lower costs of a new pipeline in meeting future demand growth. As a result, it would bias upwards the estimate of NPV DORC.

By contrast, a straight line DORC requires that the ORC be based on the existing capacity only.[82] The goal of the DORC exercise (whether straight line or NPV of costs) is to assess the regulatory value of the existing pipeline. For straight line DORC, the

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81 This assumes the revenue streams from the two asset groups are identical.

82 In its draft decision (p. 23), the ACCC said 'Because APTPPL had proposed that the reference service be based on the existing capacity, the ORC value for the straight line DORC is different from the ORC of the NPV DORC which has to take account of future capital works on the existing pipeline to bring it up to the capacity of the optimal replacement pipeline.'

In fact, the ORC for a straight line DORC calculation is not influenced by whether the reference service is based on existing capacity or existing and future capacity.

ORC needs to be based only on the assets that currently exist. To base it on estimated future expansions as well would mean that the cost of expansion capital would enter the capital base twice: once as part of the ICB and again at the start of the period following the period in which the expansion took place (subject to it satisfying the requirements of section 8.16 of the code).

Consequently, a forecast capacity ORC is appropriate for the NPV DORC calculation and an existing capacity ORC is appropriate for the straight line DORC calculation. To suggest that the one ORC is appropriate for both methodologies suggests a fundamental misunderstanding of the concepts behind the two methodologies. The ACCC considers it inadequate to use an existing capacity ORC in the NPV DORC model simply to avoid the issue of identifying the costs of expanding the current pipeline, as APTPPL proposed.[83] Further, for the above reasons, the adoption of an existing capacity ORC for the NPV DORC calculation is not an 'alignment' with the ACCC's position in its draft decision as APTPPL claims.[84]

Materiality

On the question of the materiality of the changes to the ORC that the ACCC required, the ACCC notes that the NPV DORC calculation is an involved process with many inputs. Some of these inputs can be accurately determined while others can only be estimated with varying degrees of reliability. To achieve the highest level of confidence possible in the DORC valuation and to ensure that these forecast costs are best estimates (as required by s. 8.2(e) of the code), each component needs to be estimated as accurately as possible. The fact that some components will not have a high degree of confidence attached to them is no reason to accept inaccuracies in the estimates of other components when those inaccuracies can be avoided.

The ACCC's comment about the materiality of the difference in the costs of the ORC estimates from Venton and Sleeman reflected consideration by the ACCC that given the degree of accuracy that can be attached to many of the components of the ORC, the overall difference between the two estimates was not enough that one could be used to say that the other should be rejected.[85] That is not the same as saying that neither could be improved upon.

In fact the ACCC considered that Venton's estimate could be improved by calculating the return allowed during construction by using the WACC which reflects the efficient cost of financing. Similarly, APTPPL's adjustment of Venton's ORC by the addition of equity raising costs can be improved by using estimates of that cost which reflect the latest market data available. These are elements in which a higher degree of accuracy can be maintained relative to other elements. This does not imply a 'high level of

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83 APTPPL, 'Response to the Draft Decision', p. 12.

84 APTPPL, 'Response to the Draft Decision', p. 12.

85 Venton described its ORC estimate as being accurate to plus/minus 15 per cent (Venton, *Report*, p. 59). Sleeman considers its ORC estimate to be accurate plus/minus 30 per cent (Sleeman, *Report*, p. 21).

finesse in cost estimation that does not exist' as APTPPL claims.[86] It is requiring the level of accuracy that is available for these elements in the ORC estimate.

Consequently, the ACCC has not been persuaded by APTPPL's comments that the current capacity or the forecast capacity ORC values should be adjusted from those calculated by the ACCC in the draft decision, save for updating the calculation with the nominal vanilla WACC calculated for this final decision using the latest parameters available when the decision is made.

Discount rate

As noted by APTPPL, the main areas of contention between the ACCC and APTPPL are those of the appropriate discount rate and the perspective (incumbent or new entrant) from which to do the analysis.

APTPPL states that unless costs in the NPV DORC calculation are discounted by the WACC, the revenue calculated in the revenue model (which uses the DORC as the ICB) will be 'inconsistent with the difference (if any) in revenues that was assumed in the DORC calculation'.[87] As the ACCC understands the NPV DORC calculation (and as CRA has also expressed it)[88] the working assumption in the NPV DORC model is that there are no revenue differences between the new and existing pipeline alternatives. It is not apparent how regulatory revenue could be inconsistent with a difference in assumed revenues when it is assumed there is no difference.

APTPPL contends that the use of the risk free rate to discount future costs assumes that all costs are certain. It says this assumption is incorrect as, for example, there is uncertainty in the timing of capital costs and contracts for O&M costs are not fixed price.[89] The ACCC accepts that not all costs are certain. The use of the risk free rate assumes that there is no systematic risk associated with costs (not that there are no risks at all). Investors are able to diversify their investments to eliminate non-systematic risk.[90]

The ACCC also notes that if any risk were to be factored into the discount rate, it should move the discount rate lower than the risk free rate (assuming, as APTPPL appears to do that uncertainty about future costs is undesirable).[91] The ACCC made this point in the draft decision and notes that APTPPL has not raised an objection to it.

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86 APTPPL, 'Response to the Draft Decision', p. 5.

87 APTPPL, 'Response to the Draft Decision', p. 10.

88 CRA, *Roma – Brisbane Pipeline: NPV DORC key inputs*, September 2006, p. 11 cited as 'Key inputs'.

89 APTPPL, 'Response to the Draft Decision', p. 10.

90 NERA, 'Critique', p. 35. If the discount rate is higher than the risk free rate, it makes the NPV of the costs smaller: that is, the higher the risk, the smaller the value of the cost. This is counter intuitive: if an entity was looking to pay someone to take over its cost stream, the more risky the cost stream, the more it would have to pay that person. This higher value would be associated with a lower discount rate.

91 NERA, 'Critique', p. 35f.

APTPPL notes NERA's assessment of APTPPL's DORC calculations accepts the views of Professor Grundy that the risk free rate should be used to discount costs, and says that the draft decision does not recognise that 'EAPL submitted a strong rebuttal of Professor Grundy's position in the course of the MSP appeal'.[92] The ACCC is aware of EAPL's response to Professor Grundy and took it into account in the draft decision, as it has in this final decision.

APTPPL refers to work done by CRA in support of the use of the WACC as the discount rate. CRA purports to prove algebraically that the discount rate for costs should be the WACC. Its calculations start with a formula which includes the discounting of net revenues on each pipeline by the same WACC (discount rate on net revenues).[93] In doing so it is assuming that net cash flows on each pipeline have the same levels of risk despite the fact that, by assumption, the profile of net cash flows are very different. Specifically, while both pipelines have the same revenues they have different expenditure levels - giving rise to different levels of, and volatility in, net revenues. Clearly an old and a new pipeline will not have the same level of operating expenses. CRA's implicit assumption that both pipelines have the same WACC is inappropriate. As NERA points out, assuming the same discount rate on net revenues despite very different net revenue profiles is equivalent to assuming (not proving) that the discount rate on costs is equal to the discount rate on net revenues:[94] it is assuming the very point that CRA is purporting to prove.[95] Thus, the CRA proof is invalid.

The ACCC's contention is that the riskiness of net revenues cannot be attributed to each of its components: it is a function of the riskiness of each of its components, but not equal to them.[96] That this is mathematically possible can be seen clearly by considering a numerical illustration.

Assume a one period model where at the end of the period there are expected costs of $8 and expected revenues of $10. There is little risk associated with costs and their discount rate is 2.0 per cent. There is higher risk associated with revenues and their discount rate is 3.5 per cent. The appropriate WACC (discount rate for the net revenues) for the service provider facing this scenario would be found by solving:

$10/(1+3.5%) - $8/(1+2%) = ($10-$8)/WACC giving a WACC of 9.97%

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92 APTPPL, 'Response to the Draft Decision', p. 57.

93 CRA, 'Key inputs', p. 12.

94 This must be the case if, as is also assumed by CRA, revenues are assumed to be the same for both pipelines and the discount rate on costs is assumed to be the same for both pipelines.

95 NERA, 'Critique', pp. 1-3.

96 In deriving its formula (3) (see CRA, 'Key Inputs', p. 12), CRA splits the expression (R-C)/(1+W) into R(1+W) – C(1+W). In this R = revenues, C = costs and R-C is net revenues and W is the discount rate appropriate to net revenues. While this split is algebraically correct, it simply gives the mathematically true statement that (revenues discounted by the discount rate appropriate to net revenues) minus (costs discounted by the discount rate appropriate to net revenues) = net revenues discounted by the discount rate appropriate to net revenues). It does establish the validity of using the discount rate appropriate to net revenues to discount revenues and costs separately.

Thus, it can be seen that a WACC applying to net revenues is consistent with much lower discount rates being applied to the two components of net revenues (revenues and costs) when they are considered separately. This illustration does not prove that the discount rates for revenues and costs must be lower than WACC:[97] the risk free rate is used for the other reasons given in this section and in the draft decision. What it does is illustrate that discount rates for costs and revenues lower than WACC is mathematically valid and illustrates the invalidity of CRA's algebraic proof.

CRA attempts to reconcile the inconsistency between its conclusion (that the discount rate for costs is the WACC) and the advice provided by Grundy on the basis that its conclusion holds for firms subject to price regulation whereas Grundy was considering firms that are not.[98] CRA notes that NERA's examples include insurance companies which are not subject to price regulation. CRA concludes that 'the ACCC experts were speaking about firms that are fundamentally different from a covered pipeline, which is constrained to earn zero economic profit.'[99]

In fact, it is generally accepted that the effect of competition on firms in competitive markets (such as insurance companies) is to drive economic profit towards zero.[100] Consequently, CRA has not established that there is a fundamental difference between a regulated service provider and other firms which is relevant to the question of the relevant discount rate for costs. Even if CRA has established a difference between APTPPL and the firms being considered by Grundy and NERA, it does not explain why this difference is relevant. It provides no evidence that the costs associated with a regulated firm would have a different risk profile to those associated with a non regulated firm, or why the costs associated with a regulated firm should be discounted at a higher discount rate. There does not appear to be any reason why this would be the case.

CRA quotes Grundy as agreeing with CRA's proposition that if revenues and costs have very similar risk profiles then the correct discount rate is approximated by the pipeline's WACC. CRA makes an extra logical leap and states that if regulation makes revenues approximate costs then they must have similar systematic risk profiles.[101] This conclusion simply does not follow. The present values may be the same and yet the risk profiles quite different. For example, an investor might commit to spend a riskless $100

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97 The formula above will produce a WACC of 9.97 per cent if by some coincidence both the revenue discount rate and the cost discount rate happen to be 9.97 per cent.

98 CRA ('Key Inputs', p. 14) says that its three assumptions have to be met for its conclusions to follow, and that these assumptions are not met by the firms referred to by Grundy and NERA. The assumptions are economic profit for the existing pipe to be zero; economic profit for the new pipe to be zero; and revenue to be the same for both pipes. It is hard to see how CRA could expect a firm to meet the third criteria when the criteria relates to two firms considered together. The ACCC takes it that the criteria on which CRA considers its analysis to depend is that of the firm being constrained to zero economic growth.

99 CRA, 'Key inputs', p. 14f.

100 In practice, competitive markets do not generally exhibit perfect competition and firms may earn some economic profit. Similarly, as noted by CRA, economic regulation tends to mimic workable competition. Hence, regulated firms may earn some economic profits.

101 NERA, 'Critique', p. 6, notes that this statement is equally true if the word 'regulation' is replaced with 'competition'.

in one year's time in exchange for the probability of earning a risky $110 in one year's time. In an efficient market, the present value of the $100 cost and the present value of the expected $110 revenue will be the same. This is because each has a different discount rate: they are not the same as CRA claims.

In any event, it is unclear why CRA considers regulation central to explaining the inconsistency of its views with Grundy/NERA advice given that CRA elsewhere claims that NPV DORC can only be understood in the context of a hypothetically competitive market for pipeline services.[102]

The ACCC considers that APTPPL has not raised any persuasive new arguments for the use of WACC to discount costs. An assessment of these arguments has led the ACCC to confirm the risk free rate as the appropriate discount rate for cost flows in the NPV DORC model.

Perspective for tax analysis

The ACCC notes APTPPL's statement that 'The Commission argues that DORC should be implemented from the Incumbent perspective because of the potentially different tax positions of the Incumbent and the HNE'.[103] The ACCC did not argue that the existence of different tax positions was the reason to choose the incumbent perspective. What it did was note that the different perspectives have different tax positions. It chose the incumbent perspective for other reasons, as noted in the draft decision.[104]

APTPPL says that the draft decision regards the distinction between incumbent and HNE perspectives as important and that it is therefore inconsistent that the draft decision then chose the straight line DORC which is independent of ownership. APTPPL has misconstrued the ACCC's position as expressed in the draft decision. The NPV DORC can be assessed from either perspective. Therefore one perspective needs to be chosen. It does not follow (and the ACCC did not say in the draft decision) that ownership is inherently important to a DORC assessment other than to the extent that one may choose a DORC methodology that includes ownership as a component. If a straight line DORC is to be favoured (based on various factors, ownership not being one) then ownership is not an issue.

APTPPL states that there is a nexus between HNET and DORC which it claims has been accepted by the Tribunal (in the MSP case) and by NERA. It concludes that therefore the tax perspective for the DORC calculation should be the new entrant's perspective.[105] The ACCC considers that if there is this nexus, it cannot automatically be assumed that the tax position of the 'NE' (new entrant) in HNET is the correct tax position to be used in the DORC calculation. The ACCC notes the HNET is a calculation based on a competitive market assumption. '[R]eplicating the outcome of a competitive market' is one of the objectives of the Reference Tariff and Reference Tariff Policy under the code (8.1(b)). CRA emphasises the importance of replicating

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102 NERA, 'Critique', p. 5f.

103 APTPPL, 'Response to the Draft Decision', p. 53.

104 RBP Draft decision, pp. 20-22.

105 APTPPL, 'Response to the Draft Decision', p. 53f.

the outcome of competitive markets in its report for APTPPL.[106] However, NERA has shown that unless the revenue calculations also assume the tax costs of a new entrant, the use of the new entrant's perspective in the calculation of DORC will result in tariffs higher than would occur in a competitive market.[107] These points are developed below in response to more specific comments by APTPPL and CRA.

APTPPL says that the HNET revenue calculation has been considered appropriate (in the MSP revocation case), that a revenue based NPV DORC is consistent with this and that this is connected to a cost based NPV DORC. Therefore, the ACCC should not distinguish the cost based approach from the revenue based approach. It says it is not advocating a revenue based approach but is simply reinforcing the connection between HNET and DORC.[108] As this is the purpose of APTPPL's discussion here, the ACCC has focussed on the pertinent issue raised.

APTPPL's purpose in reinforcing the connection between HNET and DORC appears to be in support of its claim that the tax perspective of the NPV DORC calculation should be that of the new entrant. Its claim is that the literature surrounding the NPV approach to DORC supports the new entrant perspective. The ACCC understands that in the development of the NPV DORC understanding, NPV DORC was seen as expressing 'what would a new entrant pay' for the existing pipeline. At that time, discussion focussed on higher level conceptual issues. There was little discussion of tax and no apparent recognition that net tax costs would be different for the incumbent compared to the new entrant. Indeed, 'what would the new entrant pay' could equally have been expressed 'what would the incumbent sell for'. In fact, this is precisely how NECG/CRA has previously referred to the concept:

> "*The key distinction between the conventional depreciated optimised replacement cost (DORC) and GRV approaches is that, properly applied, the DORC valuation represents that value at which the owner of the infrastructure is indifferent relative to the replacement of the existing infrastructure with new infrastructure (at the gross replacement cost for that infrastructure*)."[109]

The implied understanding in the way this issue was discussed was that the new entrant would be paying the incumbent: the two expressions ('what would the new entrant pay' and 'what would the incumbent sell for') were two ways of looking at the same quantum. The ACCC's understanding is that it was only with the development of the NPV of costs based DORC in the context of the MSP case that it became evident that the value of the tax depreciation available depended on who the owner (incumbent or new entrant) was and that a decision about ownership needed to be made when doing the calculations. In this context, it is understood that the literature before 2004 does not use 'new entrant' to mean 'new entrant as opposed to the incumbent'. The use of 'new entrant' cannot be taken to affirm a particular tax position at a time when the issue was not being discussed. Consequently, the ACCC confirms its position in the draft

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106 CRA, 'Key inputs', p. 2f.

107 NERA, 'Critique', pp. 9-11.

108 APTPPL, 'Response to the Draft Decision', pp. 54-56

109 NECG, prior to purchase by CRA, *WestNet's proposed costing principles*, Submission prepared for Worsley Alumina, January 2002, p. 9.

decision that 'the literature on the new entrant viewpoint [is] unlikely to be in the context of this DORC methodology'.[110]

NERA supports this understanding. It says that it is wrong to assume that all discussions of valuations based on revenue streams are the same as valuations based on cost streams. If the present value of future revenues is equal to the present value of future costs then the two approaches will be the same. However, this is just a mathematical truism and amounts to a revenue based calculation collapsing into a cost based calculation. NERA is unaware of discussions of revenue based DORC prior to the MSP decision that imposed this condition on revenues.[111] Thus discussion of revenue based DORC cannot be assumed to be relevant to cost based DORC and it is reasonable to understand the cost based approach to valuation of DORC as being new to the MSP decision.

Consequently, the ACCC rejects APTPPL's claim that the literature on DORC and/or some nexus between DORC and HNET supports the use of the new entrant perspective in the calculation of NPV of costs DORC.

APTPPL claims that the ACCC has ignored some tax advantages available to the incumbent. It claims that the incumbent could sell the fully depreciated pipeline to another entity which could depreciate its purchase cost. In this analysis, APTPPL fails to acknowledge that the incumbent would have to pay tax on the portion of the purchase price which is greater than the written down value for tax purposes. When this is taken into account, tax implications actually make sale of the asset less attractive rather than more. That is, even though a new entrant may be prepared to pay the new entrant DORC (the value which includes future tax deductions) for an existing asset, the incumbent must itself pay tax on the purchase price net of the depreciated tax value of the asset. The effect of this is that, in the hands of the incumbent, a payment of new entrant DORC is actually worth less after tax than incumbent DORC.[112]

APTPPL states that it is not necessary to have consistency between the DORC model and the revenue model because they are distinct steps required by the code.[113] The ACCC does not believe it is appropriate for the two models to be constructed in isolation. As NERA shows, to set the ICB at the new entrant DORC and the regulatory revenues based on the incumbent's costs will give revenues higher than those associated with a new pipeline.[114] To increase the ICB to reflect the lower future tax costs of the new entrant but then to set revenues based on the (higher) tax costs of the incumbent would allow for the recovery of more than the efficient costs of delivering the reference service and is not required by or consistent with s. 8.1(a). Costs incorporated into the tariff by one step of the code would be incorporated again by another step. Such a result would not be consistent with the objective of replicating the outcome of a competitive market (s. 8.1(b)). The ACCC remains of the view that

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110 RBP Draft decision, p. 21.

111 NERA, 'Critique', p. 32f.

112 NERA, 'Critique', pp. 7-9, 11.

113 APTPPL, 'Response to the Draft Decision', p. 10.

114 NERA, 'Critique', pp. 9-11.

consistency between the DORC and revenue models is necessary with regard to tax assumptions.[115]

In conclusion, the ACCC considers that APTPPL's criticisms of the ACCC's reasoning in the draft decision are not persuasive and that it has not presented any new evidence which would lead the ACCC to alter its conclusion in the draft decision. The tax assumptions used in the NPV DORC must be consistent with those used in the revenue modelling. To do otherwise would result in revenues higher than those associated with a new pipeline and would allow the service provider to recover more than the efficient costs of providing the regulated services (inconsistent with s. 8.1(a) of the code).

If, as proposed by APTPPL, a new entrant perspective were used for the DORC, in order to achieve consistency the new entrant costs would have to be modelled in the revenue calculations (which has not been proposed by APTPPL). As, consistent with previous assessments of proposed access arrangements by the ACCC, the revenue calculations are based on the efficient costs that would be faced by the incumbent service provider, the appropriate NPV DORC (if a NPV DORC were to be used as the basis of the asset base) would be from the incumbent perspective.

Expansion of existing pipeline

As noted by APTPPL, the expansion programs for the existing pipeline put forward by APTPPL and by Sleeman differ substantially.[116] The ACCC notes that APTPPL did not critique Sleeman's program other than to say that the forecasts for the first and second years did not and will not occur in the remainder of the identified period even though Sleeman's program is based on the demand forecasts provided by APTPPL which are understood to reflect its assessment at the time it lodged its access arrangement revisions of expected demand.[117] The ACCC also notes that APTPPL provided little supporting evidence for its estimates of the expansion costs of the existing pipeline.

There are three relevant points to make on the differences between APTPPL's and Sleeman's programs:

- Sleeman's forecast of expansion costs are part of an overall forecast of future capital costs, including replacement costs, over the next 238 years (being the timeframe of APTPPL's DORC model, which the ACCC accepts). The initial expansion (over the next five years) may not be optimal when viewed on a stand-alone basis but is the optimal option identified taking into account future replacements as well. That is, the capacity increase itself may be possible for a lower cost but the higher costs that would have to be incurred later when replacing the pipeline would mean, in present terms, a higher overall cost for this approach.

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115 Consistency would be met if the ICB were based on a new entrant DORC with the revenue model also reflecting the lower tax costs of the new entrant. As NERA (ibid) has shown, this would produce the same revenue requirement as an ICB based on the incumbent DORC and the revenue model reflecting the incumbent's tax position. The ACCC has chosen the latter to be consistent with revenue modelling in past decisions which has used the tax position of the incumbent.

116 Both Sleeman and APTPPL provided forecast capital expenditure for expansion and replacement over the next 238 years as the NPV DORC model requires. The basis of APTPPL's comment discussed here is a comparison of the capital expenditure costs in the first five years.

117 APTPPL, 'Response to the Draft Decision', p. 12.

- The 'design philosophy' of both Venton in estimating the ORC, and Sleeman in estimating the ORC and the expansion and replacement costs for the existing pipeline, is to include two compressors in each compressor station: one duty and one standby. This gives a high degree of confidence about the ability of the pipeline to continuously deliver its services. APTPPL's forecast expansion does not include standby compressors. Thus its program may cost less but would not deliver the same service level as the replacement pipeline. To the extent that the service levels of the existing and the replacement pipelines differ, the NPV DORC calculation will be distorted.
- APTPPL states that the Sleeman program estimates expansion costs of $27m in 2005–06. The ACCC notes Sleeman's estimates are for calendar years and Sleeman has forecast $27m for 2006. The ACCC had inserted this into the NPV DORC model in the year 2005–06. Consequent to APTPPL's comments about expansion not occurring as soon as assumed for the draft decision, for this final decision the ACCC has input the $27m into the 2006–07 year in the NPV DORC model and has similarly moved all other forecast capital costs for the existing pipeline back one year (from their implementation in the draft decision). The ACCC has also considered APTPPL's claims that this expenditure and the $130m forecast for the following year will not occur in the remainder of the identified period. The ACCC understands that APTPPL does not build expansion when demand initially exceeds capacity but instead waits until there is sufficient demand to fully underwrite the building of the expansion and that this may be the reason that APTPPL considers this expenditure will not occur in the 'identified period'. However, APTPPL's NPV DORC model[118] includes capital expenditure timed to meet demand as it occurs, including significant expenditure in the forthcoming access arrangement period. To be consistent, Sleeman's estimates were based on this same assumption (as well as the same demand forecast).

For the reasons stated above and in the draft decision (p. 22), the ACCC considers Sleeman's estimates of the costs of expanding and replacing the existing pipeline to be more appropriate for the NPV DORC model than APTPPL's estimates. As noted earlier in this section 2.2.7, the ACCC considers it inappropriate to try to avoid this analysis by using an existing capacity ORC in the NPV DORC model.

APTPPL's revised model

As noted above, APTPPL proposed a revised NPV DORC model (in response to the draft decision) in which the ORC was based on existing capacity. For the reasons discussed earlier, the ACCC rejects this as an inappropriate basis for ORC in the current context.

In this model APTPPL included the replacement of individual assets at the end of their lives. However, it estimated the cost of these individual replacements as being the ORC value as apportioned over the existing assets. That is, it assumes that the existing assets can be replaced in piecemeal fashion over many years for the same cost as constructing

[118] That is, the model supporting the revisions to the access arrangement proposed in January 2006, not the revised model that APTPPL now proposes in response to the ACCC's Draft decision.

the optimal assets at one point in time. This assumes the efficiencies of the ORC even though they would not be available. This is unrealistic and inappropriate.[119]

In order to assess the potential implications of APTPPL's proposal, the ACCC asked Sleeman to forecast the optimal replacement program for the existing pipeline, assuming that there will be no future expansions. APTPPL's program and costs in its revised model were replaced with this program. The model was also adjusted for other elements which have been discussed in the context of the first proposed model.[120] The exercise estimated an 'existing capacity' DORC of $257.5m which is less than the DORC which the ACCC is proposing (based on the straight line approach).

NPV DORC valuation

APTPPL has not provided any credible new arguments for the use of the WACC as the discount rate or for the NPV DORC calculation to be undertaken from the new entrant's point of view.

In summary, the ACCC considers that APTPPL has raised no arguments that would warrant changes to the way the ACCC calculated the NPV DORC in the draft decision, except for evidence that supports moving the costs of expansion back one year. APTPPL did identify three apparent implementation errors in the ACCC's version of APTPPL's model used for the draft decision.[121] Two of these have been corrected. The other is not an error: it was in the original model provided to the ACCC by APTPPL and the ACCC considers it to be appropriate. The ACCC has also found a further error which has been corrected.[122]

Revising the NPV DORC model for these errors, and including the current vanilla WACC in the ORC calculations, produces a NPV DORC of $170.6m.

Calculation of straight line DORC

The basic assumption under the straight line approach is that the asset depreciates by the same amount each year. Recent and new transmission pipelines are generally estimated to have a (technical) life of 80 years. The optimised replacement pipeline and the looped pipeline (400mm diameter) are estimated to have a life of 80 years. However the original (250mm) pipeline is estimated to have a life of 60 years, of which 23 years remain. The issue between the ACCC and APTPPL is how to take these different lives into account in the calculation of the straight line DORC.

In its draft decision the ACCC used the formula:

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119 NERA also makes this point. NERA, 'Critique', p. 29f.

120 These include using the risk free rate for the discount rate, the nominal WACC for return during construction, 3.77% (rather than 3.83%) for equity raising costs, removing costs from 2005-06 (see below) and calculation of tax from the incumbent position.

121 APTPPL, 'Response to the Draft Decision', p. 13 (footnotes 10 and 11).

122 APTPPL's model includes costs for the 2005-06 year. However, the starting point of the model should be the beginning of the access arrangement period for which the proposed revisions to the access arrangement will apply. Consequently, costs in 2005-06 have been removed. This has the effect of increasing the DORC slightly.

DORC = ORC * Remaining life of existing pipeline / Economic life of replacement pipeline

This formula is supported by NERA.[123] It reaffirmed this approach in response to APTPPL's comments, noting in summary that 'economic DORC [the appropriate DORC that both straight line and NPV methods are attempting to approximate] will fall the higher is the service potential of the new pipeline relative to the existing pipeline.'[124]

APTPPL makes two comments on this matter. First it says that the ACCC formula mixes quantities from different pipelines (that is, the one formula has elements relating to both the existing pipeline and the optimised replacement pipeline). The ACCC agrees, but considers this to be appropriate. It is unavoidable as the ORC value relates to the optimised replacement pipeline and the remaining life is for the existing pipeline (these being the two elements in the formula on which APTPPL and the ACCC agree). So irrespective of which pipeline (the existing or the optimised replacement) the last component of the formula relates to, there will be a mixing of 'quantities'. APTPPL also shows that the ACCC formula gives a lower value than if the last component in the formula is changed to 'Economic life of existing pipeline'. Again, the ACCC agrees but notes that this just points out the effect of the difference in approach between the ACCC and APTPPL: it is not an argument which assists in determining which is correct or why. APTPPL contends the correct formula is:

DORC = ORC * (1-fraction of value depreciated to date)[125]

The ACCC considers this is appropriate only where the ORC is for an asset with the same economic life as the one being valued. Effectively, APTPPL's first comment states the difference in the ACCC's and its approaches: it does not argue for or provide evidence for its approach.

Second, APTPPL says that the ACCC's approach ignores the time value of money. The ACCC agrees that this is so, but considers that this does not invalidate the ACCC's calculation. The ACCC understands that the time value of money, as APTPPL uses the concept here, is not part of the straight line DORC approach. Indeed, APTPPL's approach (making the DORC 23/60 of ORC rather than 23/80 of ORC) does not take the time value of money into account either – it still values each year equally. Whether it is appropriate to have a DORC estimate which does not include the time value of money in its calculations is part of the broader question of whether the straight line or NPV approach is more appropriate for estimating the DORC. This is discussed later in this section.

The consideration of how to deal with the different asset lives is aided if APTPPL's formula is examined. The formula could also be stated as:

DORC = ORC * (fraction of years remaining)

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123 NERA, 'Comparison of DORC estimation Procedures', p. 22.

124 NERA, 'Critique', p. 20.

125 This is equivalent to the ACCC formula with the last component in the formula changed from 'Economic life of replacement pipeline' to 'Economic life of existing pipeline'.

This appears to be an equivalent expression. It is when the ORC is for an asset with the same economic life as the existing asset. However, when those two elements have different lives the two expressions give different results. The ORC gives the cost of a pipeline that will last 80 years. The goal is to value a pipeline that has 23 years of service potential. Under the straight line approach 23/80 of the ORC will give that cost.

The process becomes clearer if it is considered in two steps. The first question is: if a pipeline with a 60 year life has only 23 years of its life remaining, what is the value of that pipeline? The answer (using straight line depreciation methodology) is 23/60 of the value of the pipeline when new. The second question is: given that it costs ORC to construct a pipeline with an 80 year life, what is the value of a new equivalent (in terms of service potential)[126] pipeline with only a 60 year life? The answer (using straight line depreciation methodology) is ORC times 60/80.[127]

The current exercise is to value a 60 year pipeline with 23 years remaining but knowing the cost of constructing a pipeline with an 80 year life. The answer comes from combining the answers to the two questions above. The value will be

ORC * 23/60 * 60/80 which equals ORC * 23/80.[128]

The error of APTPPL's approach can be seen by considering two scenarios. In the first, the optimal pipeline has shorter life than the existing pipeline. In the second, the optimal pipeline has longer life than the new pipeline. In both scenarios it can be seen that APTPPL's proposed approach is inferior to the ACCC's. This is done in the box below.

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126 This is service potential per year. Clearly one pipeline will provide that service potential for 20 years more than the other.

127 Note that this is the same value as a pipeline with an 80 year life which has 60 years of its life remaining. Both pipelines can provide 60 years of service: both have the same value.

128 This approach is not new for the ACCC. See ACCC, *Moomba to Sydney Draft Decision*, 19 December 2000, p. 30. Support for this approach can be found in Rohan Zauner, *Valuation Principles and Tariff Setting Framework*, June 2006, p. 6.

Analysis of APTPPL's straight line depreciation formula

The inappropriateness of APTPPL's approach can be seen by considering the outworking of two reasonable scenarios.

Scenario 1

Assume the current pipeline has a total life of 60 years and a remaining life of 23 years. Assume that the latest technology (instead of making available pipelines with 80 year lives) makes available a low cost pipeline that has a life of 30 years. It costs half as much to build as the old '60 year' technology but only lasts 30 years so that buying two of them over the course of 60 years costs less (in present value terms) than building one pipeline with a life of 60 years (using old technology). Thus the use of the new pipeline becomes optimal.

APTPPL's approach would value the existing pipeline at 23/60 (the remaining life divided by the total life of the existing asset) of the cost of the shorter life pipeline. The ACCC's approach would value the existing pipeline at 23/30 (the remaining life divided by the total life of the optimum asset) of the shorter life pipeline's cost. APTPPL's valuation is 38% (23/60) of the cost of purchasing 30 years service potential (even though the asset being valued has 76% of the service potential of the optimal pipeline (23 years as a percentage of 30 years)). The ACCC's valuation reflects the fact that the existing pipeline will last almost as long as the optimal pipeline while APTPPL's approach attributes a much lower value.

To give a numerical example, assume the 60 year pipeline costs $60m to build and the 30 year pipeline costs $30m to build. Building a 30 year pipeline and replacing it once would give the same service as the 60 year pipeline but cost less in present value terms because some of the costs are delayed. APTPPL would value the existing pipeline (which has 23 years life left) at $11.5m ($30*23/60). The ACCC approach would value it at $23.0m ($30*23/30).

Scenario 2

Similarly, consider an example where the optimal asset has longer life. Assume a service provider builds a pipeline with a 60 year life 37 years ago. It now has 23 years life left. Assume technology does not change so that a new pipeline today would also last 60 years. Assume that it would cost $60m. APTPPL approach would value the existing pipe at $60*23/60 = $23m. As the replacement pipeline has the same life as the existing pipeline, the ACCC's approach would result in the same valuation. Now assume that the next day, new technology gives new pipelines a life of 61 years with no increase in costs. APTPPL's approach would value the existing pipeline at $60*23/60 = $23.0m. The ACCC's approach would now value the existing pipeline at $60*23/61 = $22.60m. APTPPL's approach means that the existence of a superior alternative new technology has no effect on the value of the existing pipeline. This is counter intuitive. On the contrary, as NERA points out (p. 20 of its *Critique*) one would expect the development of new cheaper technology to mean the existing pipe is not worth as much as it was previously (consistent with the ACCC approach).

As discussed above, an increase in service potential of the replacement pipeline compared to the existing pipeline (from an increased life, for example) would be expected to lead to a decrease in the value of the existing pipeline. The ACCC's formula reflects this understanding. The ACCC considers APTPPL has not provided evidence or argument that would lead to a different conclusion. Therefore, the ACCC considers that, given the ORC relates to a pipeline with an 80 year life, the correct valuation of the existing pipeline with a remaining life of 23 years (using the straight line approach) is ORC*23/80. This would be true irrespective of the total life of the existing pipeline.

Maintaining the methodology as described in the draft decision, but updating the calculations for the latest nominal WACC (8.84 per cent) gives a straight line DORC of $296.41m ($295.84m in the draft decision).[129]

Basis for past tariffs, economic depreciation and historical returns (s. 8.10(f))

Section 8.10(f) of the code requires the regulator to consider the basis for past tariffs, economic depreciation and historical returns.

In its draft decision, the ACCC noted a number of historical contracts which provided for payments over standard charges for transportation services. Moreover these payments were linked to capacity expansions undertaken by APTPPL, specifically all six compressors, looping sections 1 and 2 and part of looping 3. The result of this analysis was that the ACCC concluded that APTPPL had more than fully recovered, through past tariffs, the capital associated with these capacity expansions.

The ACCC notes that APTPPL believes that the ACCC's analysis and conclusion as to the existence, quantum and treatment of past capital contributions was flawed. APTPPL states

> There is too much uncertainty in the available information to enable the Draft Decision to make an accurate conclusion that the previous capital expenditure for expansions in capacity has been recovered and an amount should be deducted from the capital base. Further, the analysis reflected in the Draft Decision is flawed, with the result that the assumed "value" of $46.5 million may be significantly overstated.[130]

APTPPL also stated that it may not be appropriate under s. 8.10 to reduce the ICB to reflect past contributions. APTPPL stated that the issue of past contributions is more appropriately dealt with via the s.6.20 arbitration provisions of the code. In particular, it notes a concern with the approach in the draft decision which it claims

> …potentially exposes a service provider to "double jeopardy" – where the ICB which would otherwise apply is reduced to reflect past capital contributions, and reference tariffs are set on the basis of that reduced ICB. However, the service provider is then exposed to the risk that a user is then able on an arbitration to have the reference tariff reduced to reflect capital contributions made by that user. There is no mechanism in the Code, or proposed in the Draft Decision, to enable recovery of that loss which will result in a windfall gain to the relevant user

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129 The change in WACC affects the ORC because the pipeline's value includes the cost of capital during construction.

130 APTPPL, 'Response to the Draft Decision' (confidential version), p. 23.

(in that already reduced reference tariffs are further reduced on arbitration) and a windfall loss to the service provider (in that there is no means of recovering the lost revenue).[131]

The ACCC affirms its analysis which was presented in confidential appendix D of its draft decision.

The information and language used in the historical contracts led the ACCC to conclude that additional charges associated with the contracts were not associated with the normal provision of services.

The ACCC notes APTPPL's suggestion that the language used in the draft decision (includes references to expectations and 'some evidence') indicates a lack of confidence by the ACCC in its analysis. This is an incorrect characterisation. Due to the confidential nature of the information the ACCC's considerations could not be presented in the body of the draft decision and were presented in confidential appendix D. The circumspect language used in the draft decision was chosen to maintain confidentiality.

The ACCC also notes APTPPL's contention that several of the agreements contain clauses which raise the possibility of renegotiation of tariffs and its implication that the ACCC's analysis did not take this into account. The ACCC requested all historical contract information available to APTPPL and also contacted the appropriate companies to confirm that it had the correct historical contract information. It based its analysis on this information.

The ACCC further notes that APTPPL claims that the ACCC cannot conclude with any certainty that APTPPL has recovered or 'more than fully recovered' the capital the draft decision has assumed. The ACCC disagrees. Using all of the historical contract information provided by APTPPL, the ACCC was able to show for each expansion, the capital expenditure paid by APTPPL, the user payments and the implied rate of return. The ACCC notes that the implied rate of return percentage calculated was over 10 times the WACC that APTPPL proposed in its revised access arrangement and 6 times APTPPL's adjustment to this in the light of historical bond rates and inflation.

APTPPL specifically raised four concerns with the ACCC's methodology in analysing the capital contributions.[132] First it said that the underlying information was not fully known and that there is uncertainty over the actual capital expenditure. This may be true, but it is true of many aspects of this and any access arrangement analysis. The question is whether there is enough information and whether it is of sufficient quality that appropriate analysis can be undertaken. The ACCC is confident that the information supplied by APTPPL is sufficient to allow the ACCC to have confidence in its analysis.

Second, APTPPL said that the ACCC's analysis does not recognise that an increase in non-capital costs would accompany a capital expansion of the pipeline. It is important to remember that the gas transportation that attracted the capital contributions also attracted the 'normal' tariff that APTPPL charged for all gas transportation as well. The

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131 APTPPL, 'Response to the Draft Decision' (confidential version), p. 23.

132 APTPPL, 'Response to the Draft Decision' (confidential version), p. 20f.

ACCC's calculation of the implied returns assumed that the capital contribution paid the capital costs (return on capital and depreciation) of the capacity expansion. It assumed that the 'normal' tariff met the costs of non-capital costs associated with the expansion. The ACCC considered this to be a generous assumption as it is reasonable to expect that the normal tariffs charged on gas transportation not associated with the expansion (ie, the original pipeline) were enough to cover the capital and non-capital costs of the original pipeline. Therefore it is likely that the normal tariff charged on the expanded capacity more than recovered the non-capital costs of the expanded pipeline and that there was some capital payment in the normal tariff as well. In this case, the implied returns calculated by the ACCC will understate the true return achieved by APTPPL.

Third, APTPPL raises the possibility that the tariffs charged before the expansion (referred to in the above paragraph as the 'normal' tariffs) may have under recovered costs. While this is a theoretical possibility, the ACCC notes that APTPPL provides no evidence that this is the case. The ACCC observes that the pipeline was expanded only 13 years after it was built suggesting that demand in the early part of the pipeline's life was healthy. The ACCC also notes that the capital contributions were only required from specific users for specific segments of capacity. If the purpose of the payments identified by the ACCC as capital contributions was simply a mechanism to take previous under recoveries into account, as APTPPL suggests, it would be reasonable to expect that the payments would be required of all users and applied to all transportation provided (or even spread over the transportation associated with the original pipeline that has supposedly under recovered) rather than only for the transportation of gas using new capacity. The ACCC concludes that it is unlikely that the original pipeline has under recovered its costs[133] and also that, even if there had been under recovery, it is unreasonable to claim a connection between the capital contributions and that under recovery.

Fourth, APTPPL notes that the ACCC used a benchmark return of 10 per cent (being the post tax nominal WACC equivalent of APTPPL's proposed pre tax real WACC) in its assessment of whether APTPPL had recovered the capital costs of the relevant expansions. APTPPL says that the risk free rate, inflation rates and tax regime at the time of the investments should be taken into account. It said that using the conservative values used to derive the WACC in the draft decision (which it disputes), adjusting for actual bond rates and inflation produces a benchmark of 17.3 per cent.

The ACCC notes that APTPPL did not provide the ACCC with its calculations in support of the 17.3 percent calculation. However, assuming that the calculations were made appropriately, the ACCC notes that a benchmark WACC of 17.3 per cent (instead of 10 per cent) does not alter its conclusion that APTPPL has more than fully recovered through past tariffs the capital associated with the capacity expansions in question. In fact it is over six times this benchmark. Further, this benchmark is based on APTPPL's proposed WACC. The ACCC considers a lower WACC (as proposed in this final

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[133] This is not to say that in 1982 (13 years after the original pipeline was built) the full costs of the pipeline had been recovered. The 33 TJ/day capacity associated with the original pipeline has continued to attract a tariff up until the present and in 1982 (with demand being such as to require expansion) it would have been reasonable for the owners to expect that it would continue to receive revenue from this capacity which would contribute to costs.

decision) to be more appropriate. Its point in the draft decision was that even if the (higher than appropriate) WACC proposed by ACCC is used as the benchmark, APTPPL has more than fully recovered its capital costs associated with the identified expansions.

For the above reasons, the ACCC rejects APTPPL's claim that the analysis in the draft decision was flawed.

For the reasons outlined above, the ACCC maintains its conclusion that APTPPL has more than fully recovered through past tariffs the capital associated with the expanded capacity achieved by the addition of all six compressors, looping 1 and 2, and a proportion of looping 3. Similarly, it maintains its view that the methodology used in the draft decision to calculate the extent of past contributions remains sound.

The ACCC remains of the view that these are factors that should be considered under s. 8.10(f) of the code. The ACCC also considers these to be relevant factors that can be taken into account under s. 8.10(k).

Notwithstanding the above, APTPPL has questioned the appropriateness of deducting contributions from the ICB under s. 8.10(f) and has submitted that 'the code remedy for users who may have paid capital contributions is via arbitration and not an adjustment to the ICB'.

APTPPL also believed that taking account of assumed previous capital contributions in setting the initial capital base was not supported by any precedent. The ACCC has considered the previous instances identified by APTPPL for where contributions were not taken into account in establishing the ICB. It is also aware of instances of jurisdictional regulators (IPART, ICRC and the QCA) taking capital contributions into account by either not including the amounts in the regulated capital base or by subtracting the contribution from regulated revenue as noted by Sun Retail below. These adjustments have been made after the initial capital base was established for these systems.

The ACCC is of the view that the 'code remedy' could potentially be through either arbitration (ss. 6.1 and 6.20) or an adjustment when setting the ICB (s. 8.10(f)). The latter approach may, in principle, be preferred. Section 8.10(f) has a broad scope, addressing how tariffs have been (or appear to have been) set in the past, the economic depreciation of the covered pipeline and the historical returns to the service provider. Section 6.20 is narrower, addressing situations where prior contributions have not been fully recouped. It is arguable that the intention of the drafters of the code was that the process of establishing the ICB should encompass recognition, as appropriate, for earlier market behaviour and that other provisions (such as those relating to arbitration) should only relate to subsequent matters. However, the scheme of the code does not clearly make such a distinction.

Further grounds for a s. 8.10(f) adjustment when setting the ICB are that it would remove uncertainty and it would be likely to be less administratively burdensome than the prospect of one or more arbitrations. An important rationale for the code approach of establishing reference tariffs rather than relying exclusively on the negotiate-arbitrate model established under the broader access regime available under Part IIIA of the

TPA is that it can reduce administrative costs where there are multiple users. There are also the benefits of reducing uncertainty about likely regulatory outcomes.

In considering this matter, the ACCC has noted APTPPL's contention 'that to be a capital contribution a payment must be an "up front" payment for a specific piece of capital'.[134] The ACCC has generally used the expression 'users' contribution' to cover these payments, whether relating to 'up front' or 'pay as you go' amounts. In any case, s. 6.20 is phrased in terms that also encompass a user or prospective user paying 'a higher charge than it would have paid in the absence of such a capital contribution'. Similarly, s. 8.10(f) refers to 'the basis on which Tariffs have been (or appear to have been) set in the past'. A further related point is that, where such contributions are by means of a surcharge approved by the regulator to recover some or all of the cost of a new facilities investment that cannot be recovered at the prevailing tariffs, that amount cannot be included in the capital base (s. 8.25 of the code). Similarly, while capital contributions may be added to the capital base when it is being rolled forward at the beginning of a subsequent access arrangement period (s. 8.23), inclusions are subject to the requirements of s. 8.16. Capital contributions would generally only be required for amounts that do not satisfy s. 8.16, and so would not be included in the capital base.

While APTPPL has raised the concern that it may be exposed to 'double jeopardy' if an adjustment is made when setting the capital base to exclude users' contributions and a user subsequently seeks arbitration to recoup some or all of the amount, the ACCC considers that the arbitrator would be requested to take any such adjustment to the capital base into account in making its decision. This means there would be little if any chance of compensation being duplicated.

APTPPL has also raised the concern that only some users have made contributions yet an adjustment to the capital base may impact on all prospective users. This raises issues of equity across users and over time. The ACCC agrees that an adjustment when setting the initial capital base can only approximately target such users. However, there may also be practical limitations to the arbitration approach. For example, if a user who has made a contribution ceases to be a user of the RBP – or is soon to cease being a user – there may be no realistic opportunity for it to seek recoupment through arbitration. More broadly, the two potential approaches would be expected to impact on the users who have directly contributed, the users and prospective users who have not contributed and APTPPL in different ways.

In assessing the appropriate approach, the ACCC has been mindful of the interests of the parties that will potentially be directly affected by its decision – the users who made these contributions and APTPPL.

The ACCC invited the users who the ACCC considered made a contribution to the historical capital expansion of the pipeline (through past tariffs that exceeded standard charges) to provide their views on whether the ACCC should have regard to these capital contributions in establishing the ICB.

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134 APTPPL, 'Response to the Draft Decision' (confidential version), p. 17.

The ACCC informed these users that if the ACCC has regard to a capital contribution under s. 8.10(f) in establishing the ICB, the ACCC considers it unlikely that an arbitrator would be able to adjust a user's reference tariff under s. 6.20 as this would have the effect of removing the user's contribution from the capital base a second time (the 'double jeopardy' issue raised by APTPPL). Potentially, a user may then be unable to recoup the full amount of its contribution through arbitration.

The three users who had made these contributions provided submissions on this matter. Key points made in two of those submissions are summarised below (Incitec-Pivot's submission was provided on a confidential basis).

Sun Retail Pty Ltd (Sun Retail) (Energex):

> Sun Retail is firmly of the opinion that past contributions must be recognised in this regulatory decision and agrees that the methodology used by the ACCC in the draft decision is the best approach in this situation, that is, capital contributions are removed from the ICB.[135]

on regulatory precedent:

> Such an approach is used by State regulators to take account of capital contributions including IPART, ICRC and more recently by the QCA in its decisions on Revised Access Arrangements for the Queensland gas distribution networks.
>
> In these decisions, regulators considered it appropriate to take account of capital contributions by either removing the amounts from the regulated capital base or by subtracting the contribution from regulated revenue. In the RBP case, any reduction through revenue is not applicable as limited capacity is available on the pipeline at the regulated reference tariff for the next regulatory period and hence, no users can benefit.[136]

on the definition of capital contributions

> Sun Retail would highlight the IPART decision describes capital contributions as "generally made as an upfront payment and/or as a charge that exceeds the reference tariff for the relevant reference service." Sun Retail therefore takes a contrary view to APTPPL and is certain that the contributions in question were in addition to the reference tariff for the service and therefore constitute capital contributions within the meaning of the National Third Party Access Code for Natural Gas Pipeline Systems (Gas Code). [137]

on arbitration:

> With regard to the APTPPL proposal that contributions are an issue for arbitration, Sun Retail does not consider this as a viable alternative for two reasons. First, with APTPPL excluding any expanded pipeline capacity from the Access Arrangement, any charges for new capacity will be set through negotiation. Without a benchmark reference tariff, the bargaining position of users (including Sun Retail) is limited and to expect recognition of previous capital contributions is unrealistic. Secondly, if an arbitration process actually required APTPPL to offer a discount rate, there is no benchmark tariff to reduce and it is again unrealistic to assume the resultant tariff would represent an efficient cost for providing the service less past contributions. [138]

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135 Energex user contributions submission, p. 1.

136 ibid, p. 2.

137 ibid, p. 2.

138 ibid, p. 2.

Origin:

> While we had not considered this issue in our initial submission and were comfortable with the ACCC's finding that capital contributions should not be included in the Initial Capital Base (ICB), it does appear from a strict reading of the Code that APTPPL is correct in its assertions that this matter should be handled under the disputer resolutions of the of the Code. However, Origin will accept the outcomes of any legal analysis the Commission undertake which sheds light on this interpretation.
>
> In the absence of a contrary legal finding, Origin subsequently supports the inclusion of capital contributions in the ICP (sic), as APTPPL argues, and will endeavour to recover its contributions through the dispute resolution mechanism at the appropriate time.[139]

The ACCC notes that these users have not expressed a unanimous view on whether these amounts should be included in the ICB.

While the ACCC has not conducted a full review of past regulatory decisions on this matter, it notes submissions citing previous instances that both support and weigh against including past users' contributions in the capital base. A number of regulators have excluded such amounts when rolling forward the capital base.

As noted earlier, the ACCC considers that, in principle, the better approach may be to not include these contributions in the ICB. The scheme of the code suggests that market behaviour prior to establishment of the ICB would be taken into account in setting the ICB with subsequent behaviour addressed though provisions such as those relating to arbitration and the exclusion of contributions that do not satisfy the requirements of s. 8.16 when rolling forward the capital base. However, as noted earlier, such a dichotomy is not explicit.

Reliance on the dispute resolution process also has in principle advantages. In particular, this approach may better align recovery of contributions with the users who have made them.

In summary, while the ACCC notes there is a mechanism for the recovery of capital contributions under s. 6 of the code, it does not believe this is the only mechanism that can enable past contributions to be taken into account. Moreover, it is not clear how effectively the application of the dispute resolution provisions in s. 6 would address this matter. The user would need to be able to notify a dispute under s. 6.1 in order to attempt to recover any past unrecouped contributions. However, there is some uncertainty as to whether an existing user of the pipeline can do this as s. 6.1 only allows a 'Prospective User' to notify the regulator of an access dispute against the service provider. This suggests that users who have made contributions would be unable to seek recovery through the dispute resolution provisions of the code until they are in the process of seeking to enter into a contract for service or additional service.

The ACCC considers that it is less likely that the object of the code is to provide for the recovery of capital contributions solely through s. 6.20 if users must wait to notify an access dispute, and even then may be unable to recover their contribution through lower tariffs.

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[139] Origin user contributions submission, p. 1.

While the ACCC considers that APTPPL's concerns about the potential for duplication of recoupment by users are unwarranted (as it expects that an arbitrator would take any prior deductions from the capital base into account in making a decision) it does note Origin Energy's preference for contributions not to be deducted. However, Sun Retail has strongly argued that the contributions should be removed.

On balance, after considering the objectives set out in s. 8.1, the ACCC has decided not to include the value of these past users' contributions in the ICB.

Reasonable expectations under the prior regulatory regime (s. 8.10(g))

Section 8.10(g) of the code requires the regulator to consider the reasonable expectations of persons under the regulatory regime that applied to the pipeline before the commencement of the code.

Before the introduction of the regulatory regime established in 1995 under Part 8 of the *Petroleum Act 1923* (Qld), tariffs were set through commercial negotiation. Following the amendments to the *Petroleum Act*, tariffs were set by negotiation or in accordance with the access principles approved by the relevant Minister. Access principles for the RBP were approved on 29 July 1996 and 28 November 1997.

On 18 May 2000, the previous regulatory regime was replaced by the code. However, a transitional phase existed until 29 July 2006 where the tariff elements of the access arrangement for the RBP remained derogated from the code in favour of terms established under the previous regime.

APTPPL, in its original submission, articulated the nature of its expectations under the previous regulatory regime as follows:

> Under that regime, it was reasonable for APTPPL to expect to be able to continue to charge tariffs established under the Access Principles or contracts.[140]

In its draft decision, the ACCC responded that it did not believe the previous regulatory regime could have given rise to any reasonable expectations that would bear upon the ICB of the pipeline under the current regulatory regime. The draft decision stated that, put simply, there is nothing in the previous regulatory regime that could lead to the expectation that a service provider would be entitled to charge tariffs determined under that regime once the transitional phase concluded. The access principles approved by the Minister contain no provisions that suggest that derogated tariffs should extend beyond the term of the derogation (that is, beyond 29 July 2006).

In its submission in response to the draft decision, APTPPL submitted that the ACCC failed to understand the previous regime, stating:

> That regime did not contemplate a transitional phase. There was nothing in that regime to create any expectation other than the continuation of the Act, and therefore the continuation of the approach to approving tariffs that applied between 1995 and the commencement of the Code in 1998.
>
> There is no basis for the suggestion in the Draft Decision (Draft Decision, p27) that the expectations to be considered under section 8.10(g) are expectations as to what would happen

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[140] APTPPL, 'Access arrangement information', p. 11.

> once the Petroleum Act regime ceased. The section is directed at recognising the expectations which interested parties had under the regime – it does not direct an inquiry as to what interested parties may have expected would apply once a different regime came into effect. This construction is artificial and suggests an attempt to avoid recognition of the nature of the expectations under the regime established by the Petroleum Act.[141]

The reference in the ACCC's draft decision to a 'transitional phase' was simply a reference to the period for which reference tariffs established under the previous regime would continue to be available. The point is that the Queensland legislation provided for those tariffs to apply until 29 July 2006, but not beyond that date.

APTPPL argues that s. 8.10(g) invites consideration of the expectations that existed under the previous regime, not expectations as to what would happen once that regime came to an end. This submission suggests that the ACCC's draft decision has not been properly understood. The ACCC does not hold the view that s. 8.10(g) directs an enquiry as to a party's reasonable expectations of what might apply once a different regime came into effect. Rather, the section obliges the ACCC to consider any reasonable expectations that a party might have held under the previous regime so far as those expectations are relevant to the establishment of a new ICB. The mere existence of an expectation that pre-dates the code does not, by itself, establish a matter that must be taken into account under s. 8.10(g). It is necessary that there is some causal connection between the expectation and the relevant regulatory regime. Such a connection appears to exist in the present case, since the relevant tariffs were approved by the Minister under the previous regulatory regime.[142]

However, it is still necessary to consider what a service provider's expectations were in order to form a view as to whether those expectations were reasonable in the circumstances and, if so, the weight that should be given to them (together with the other factors in s. 8.10) in establishing the ICB.[143] The weight to be assigned to a particular expectation will depend on the reasonableness of the expectation itself and a consideration of that expectation against the other factors listed in s. 8.10. The existence of reasonable expectations under a previous regime does not automatically require the ICB to be established at a level that will deliver that tariff into the future. If it did, then s. 8.10(g) would override, and effectively negate, the other factors in s. 8.10 once the existence of a reasonable expectation had been established. This does not mean that a reasonable expectation under a prior regime could never justify such an outcome. If, for example, there had been a promise under the prior regulatory regime that tariffs at a certain level would apply until a particular date, there would be a strong argument that the ICB established under s. 8.10(g) should be commensurate with such a tariff.

However, the ACCC does not believe that an expectation of this type could reasonably have been held under the previous regime. If it is APTPPL's submission that it expected to be able to continue to charge the tariffs that were approved under the

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141 APTPPL 'Response to the Draft Decision', p. 14.

142 The ACCC also notes that some tariffs were determined on an negotiated basis above 101 TJ.

143 *ACCC v Australian Competition Tribunal* [2006] FCAFC 83 at [168], [172]; *Re Michael* [2002] WASCA 231 at [187].

previous regime into the future, without any possible review or modification, then the ACCC does not believe such an expectation is reasonable in this case.

The tariffs under the previous regime were set out in access principles approved by the Minister under the *Petroleum Act* on 29 July 1996 and 27 November 1997. The approval of these tariffs came well after COAG's decision of 24 February 1994 to implement complementary legislation to establish a uniform national framework for third-party access to gas transmission pipelines. An exposure draft of the national code, which included provisions for the approval of reference tariffs for existing pipelines, was circulated in July 1996. This means that, by the time tariffs were approved under the previous regime, changes to the regulatory regime had already been announced and an exposure draft of the new regime had been published.

In these circumstances, the ACCC does not believe that APTPPL could have reasonably expected that its right to charge such tariffs into the future would be guaranteed. The regulatory regime in existence at that time included the likelihood of review. This affects the weight to be given to APTPPL's expectations.

As explained in this decision document, the ACCC has considered each of the factors under s. 8.10. Several of these factors, in particular s. 8.10(b) and (f), support an ICB that would result in a reference tariff lower than that which would have notionally applied under the previous regime. It is the ACCC's task to reconcile these conflicting factors. As noted above, there could be circumstances where expectations under a previous regime deserve such weight as to justify an ICB that would result in tariffs that applied under the previous regime. However, the ACCC does not believe this is such a case. The nature of these expectations suggests they should be given less weight than other factors under s. 8.10.

The ACCC believes the factors in s. 8.1 support such a conclusion. The continuation of the tariffs that applied under the previous regime is not necessary in order to provide APTPPL with the opportunity to earn a revenue stream that recovers the efficient costs of delivering reference services over the expected life of the asset (s. 8.1(a)). Nor, having regard to the nature of the expectations discussed above, does the ACCC believe that such a tariff is necessary in order to avoid distorting investment decisions in pipeline systems or upstream or downstream industries (s. 8.1(d)). These two factors could, in an appropriate case, justify an ICB that results in the tariffs that applied under a previous regime. However, given the nature of the expectations that were reasonable in this case, the ACCC does not believe these factors support such an outcome. The ACCC notes that the tariffs approved under the previous regime and the returns to the operator of the RBP have been questioned by the ACCC (in 2000) and the Queensland Department of Mines and Energy (in 1995).[144] The principles in s 8.1(b), (e) and (f) also suggest that the ICB should not be established in accordance with APTPPL's expectations under the prior regime. For the reasons set out elsewhere in this decision, the ACCC believes that establishing the ICB in accordance with straight line DORC is the proper approach under the code in this case.

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144 ACCC, *Queensland Gas Pipeline Access Regime, Assessment of tender processes and reference tariff outcomes, A report to the National Competition Council*, May 2000, pp. 30, 34.

Section 8.10 (j) - price paid for any asset recently bought by the service provider

The ACCC notes that APTPPL stated that there was no basis for the draft decision's conclusion that tariffs based on a replacement cost valuation of the pipeline would be uneconomic for users. The ACCC did not state this in its draft decision. It stated that 'setting the reference tariff on the basis of current replacement cost of the asset may therefore require tariffs that are uneconomic for users'.[145] The ACCC notes that a reference tariff that is uneconomic for users is inconsistent with s. 8.1(d) as it would imply that the pipeline would not be replaced.

The ACCC disagrees with APTPPL that the reference tariffs proposed by APTPPL are not based on current replacement costs. The NPV DORC methodology takes as its starting point the current replacement costs of the asset. It is therefore incorrect to state otherwise. The ACCC notes that APTPPL agrees '(although they are based on NPV DORC which takes as its starting point the current replacement cost of the assets)'.[146]

ACCC's conclusions on the initial capital base

This section provides the ACCC's conclusions on the ICB. The first part summarises the ACCC's draft conclusions which were presented in its draft decision. The second part discusses guidance provided by the Tribunal on the determination of DORC. The third part addresses specific concerns raised by APTPPL with respect to advice provided by NERA Consulting. The final part provides the ACCC's conclusions on the ICB including its calculation of the ICB.

Draft decision conclusions on the initial capital base

In its draft decision, the ACCC noted that establishing the ICB relies on the evaluation of, and the weight to be given to, each of the factors in s. 8.10 (including choice of valuation methodology—historical cost and current replacement cost or deprival valuations) and that this task is intended to be guided by s. 8.1.

The ACCC considers that while DAC and DORC methodologies have an acceptability for the purposes of s. 8.1(a), it considers that DAC and/or past sale price are less likely to meet the s. 8.1(b) objective than DORC.

The ACCC notes that while APTPPL does not advocate establishing the ICB on either the sale price or DAC valuation, it does state that the ACCC should recognise the expectations of parties under the prior regime by establishing tariffs similar to current tariffs. APTPPL states that the tariffs in the proposed revised access arrangement broadly align with the current tariffs and, as such, an ICB consistent with the continued recovery of those tariffs is warranted.

As noted elsewhere in this decision, the ACCC considers that the nature of the expectations that were reasonable under the previous regime suggests that the weight to be given to those expectations should be less than the weight given to other factors under s. 8.10 and that the factors in s. 8.1 support such a conclusion.

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145 RBP, Draft Decision, p. 28.

146 APTPPL, 'Response to the Draft Decision', p. 15.

As discussed in the draft decision the ACCC considers that the s. 8.1(c) objective is directed more at operating expenses and capital expenditure with little direct relevance to the establishment of the ICB.[147]

The ACCC considers it is open to the regulator to take into account the actual investment of the owner in the pipeline under s. 8.1(d). The ACCC notes that the proposed ICB allows APTPPL to recover more than its actual investment (depreciated) in the pipeline.

The ACCC maintains its position in its draft decision that a DORC value can be consistent with s. 8.1(e) and s. 8.1(f) objectives.[148]

In the past, for those regulated pipelines for which the ACCC has set the ICB equal to DORC, it has used the straight-line approach to depreciation. APTPPL has proposed an NPV DORC methodology rather than the straight-line approach.

In its draft decision, the ACCC concluded that because the NPV DORC methodology was highly prone to errors or differences of opinion in the estimation of its parameter values it could have little confidence that it would likely to produce an ICB figure that was consistent with the principles in s. 8.1 of the code. In particular, the ACCC noted that the ICB determined using this method could lead to tariffs significantly above (or below) the tariffs that would meet the principles in s. 8.1(a) and (b) of the code.

Accordingly, the ACCC concluded that there was not sufficient justification for it to deviate from its usual straight line approach to establishing the DORC. Moreover, straight-line DORC was considered much more likely to produce an ICB which satisfies the principles in s. 8.1 of the code. It also concluded that the use of straight-line DORC was justified under s. 2.24 of the code.

The ACCC notes that APTPPL did not accept that the 'complicating factors' advanced by the ACCC and NERA were valid, nor did it accept them as a reason for what it considered to be abandoning a rigorous approach to establish DORC.

The Tribunal's requirements for DORC

APTPPL claimed the Tribunal concluded that 'DORC should be calculated by the cost-based NPV method' and that a 'serious effort was required to arrive at the correct result.'[149] Further, it referenced a letter from the legal firm Middletons that APTPPL claimed confirmed that 'the Federal Court's decision did not affect the conclusion of the Tribunal that straight line DORC is 'too crude' a methodology and that a serious effort must be made to calculate NPV DORC.'[150] APTPPL characterises the NPV approach to DORC as 'rigorous' while the straight line approach is labelled a 'proxy'.[151]

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147 RBP, Draft decision, p. 31.

148 RBP, Draft decision, p. 31.

149 APTPPL, 'Response to the Draft Decision', p. 6.

150 APTPPL, 'Response to the Draft Decision', p. 7.

151 APTPPL, 'Response to the Draft Decision', p. 6.

APTPPL appears to have misinterpreted the Tribunal's reasons in its MSP decision. The ACCC agrees that there is nothing in the Federal Court's decision in ACCC v Australian Competition Tribunal[152] that precludes the use of NPV DORC or suggests that it is necessarily inappropriate. The decision on the appropriate methodology for establishing the ICB depends, as Middletons has stated, on a consideration by the ACCC of all the factors the code requires to be taken into account and their application to the circumstances of this particular case.

Just as the Federal Court did not preclude the use of NPV DORC, nor does the Tribunal's decision demand its use in all future cases. In ACCC v Australian Competition Tribunal, the Federal Court found (at [195]) that the ACCC has a considerable discretion in determining or establishing the ICB for the pipeline, albeit a discretion circumscribed by the factors set out in s. 8.10(a) to (k) of the code. In relation to the Moomba to Sydney Pipeline, the Tribunal itself stated:

> It may be that the resulting approval may not be as useful a precedent for other cases as it might be if the new matter were considered and decided. That is not of great consequence as all questions can, and should be, dealt with in the context of a particular application having regard to the particular facts applicable. It is preferable that an issue of substance be explored with the benefit of the consultation process envisaged by the Gas Code. Indeed, it does not follow from this decision that DORC will always be the appropriate method of valuing a used gas pipeline for ICB purposes. So much follows from cl 8.10 of the Gas Code. Furthermore, this decision does not preclude a proper consideration of DORC based upon the incumbent rather than an HNE in another case.[153]

As noted above, the Tribunal made it clear that its decision would not preclude a different approach being taken with respect to another matter. The ACCC has considered material that was not available to the Tribunal in making its MSP decision because of the provisions set out in s. 39(5) of the Law (which limits the information that can be considered at review to that information which was before the regulator when it made its decision).

In the draft decision, the ACCC considered the comparative merits of the use of NPV DORC and straight line DORC in establishing the ICB for this pipeline. It is incorrect to suggest that the ACCC concluded in the draft decision that the use of NPV DORC in this case is 'too difficult'. The ACCC did find that straight line DORC is relatively transparent and simple, but this was not the reason for the rejection of a NPV DORC methodology. The ACCC concluded that NPV DORC is highly prone to errors or differences of opinion.[154] The ACCC found that the use of NPV DORC could, due to particular circumstances of the RBP (especially its non-optimal configuration and distortions created by the tax treatment of long lived assets), produce an ICB of between $171.6m and $342.6m, depending on the values attributed to the parameters required by the methodology. Because of this large potential variance, the ACCC concluded that the use of a NPV DORC methodology was not, in this instance, consistent with the principles in s. 8.1 of the code.

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152 [2006] FCAFC 83.

153 [2005] ACompT 1 at [12].

154 RBP, Draft Decision, p. 32

Furthermore, the ACCC notes that NERA does not agree that NPV DORC is a rigorous methodology for estimating economic DORC.

NERA concludes:

> We do not accept this characterisation of our analysis and advice. A key element of our advice is that the '*NPV methodology used in the calculation of DORC for the Moomba Sydney Pipeline System (MSP)'* **is not** a rigorous methodology for estimating economic DORC. Consequently, it is unreasonable to characterise us as moving 'away from rigour' without at least noting that what APT regards as rigorous we do not. In fact, our prior reports show that, for a large number of reasons, the methodology used by APT in the RBP proceedings is not rigorous.[155]

Response to specific issues raised by APTPPL

In its submission to the draft decision APTPPL critiqued the principal issues raised by NERA. These issues are addressed below.

The straight line adjustment of ORC as a proxy for "Economic DORC"

The ACCC notes that APTPPL considered that the straight line adjustment of ORC has no theoretical economic rationale as a benchmark value and that its only rationale is precedent and ease of calculation. APTPPL stated that these two considerations should not be the basis for the choice of a calculation methodology.

APTPPL has not advanced any arguments in support of its claim under this subheading. As NERA notes, APTPPL has restricted its analysis under this subheading to four arguments (as summarised by NERA):

- Straight line DORC is not forward-looking and therefore inconsistent with the generally understood view that DORC is forward looking

  The ACCC agrees that regulatory precedent supports APTPPL's assertion that DORC is a forward looking concept. However, the ACCC does not accept APTPPL's contention that straight line DORC is backward looking. As NERA states

  > …straight line DORC is forward-looking in so far as it is calculated using an ORC that reflects currently available information (eg, on current construction costs). The fact that this forward-looking ORC is depreciated based on the remaining life of the existing pipeline does not make it a backward-looking valuation.[156]

  The ACCC notes that both the straight line and NPV DORC methodologies calculate depreciation on the basis of the remaining life of the existing asset. APTPPL has calculated its straight line DORC and NPV DORC using data on the remaining life of the existing pipeline.[157] It is unreasonable for APTPPL to seek to distinguish the two approaches by describing the straight line method as 'backward

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155 NERA, 'Critique', p. 30.

156 NERA, 'Critique', p. 19.

157 While APTPPL has not proposed the use of straight line DORC, the material it provided to the ACCC on a confidential basis included a calculation of straight line DORC.

looking'. The ACCC agrees with NERA that straight line is not a backward looking valuation.

- Straight line DORC implicitly assumes that past revenues would have been sufficient for straight line depreciation to have been recovered

  The ACCC and NERA disagree with this assertion as straight line DORC does not employ any assumption about past cost recovery or losses, neither does the NPV DORC methodology. NERA posits that a regulatory valuation approach should take account of past cost recovery on equity grounds but notes that this would apply equally to straight line or NPV DORC. The ACCC notes that other factors set out in s. 8.10 of code allow the regulator to consider past cost recovery and that as NERA notes, it is not relevant to the calculation of DORC.

- Straight line DORC involves price shocks when asset replacement occurs

  The ACCC agrees with APTPPL that DORC should be consistent with replicating the outcome of a competitive market. It does not however agree with APTPPL's assertion that straight line DORC involves price shocks and this is inconsistent with the competitive market underpinnings of DORC. NPV DORC and straight line DORC are both capable of producing price shocks. The methodology which provides a more accurate measure of economic DORC may produce fewer price shocks.

  Notwithstanding the above, the ACCC agrees with NERA that price shocks (and any smoothing required) are not a relevant consideration to setting the ICB. NERA states:

  > …Using straight line depreciation of the ORC to determine the ICB creates no restrictions on future depreciation profiles that can be applied to the RAB - just as setting the ICB based on NPV cost based DORC creates no restriction on how future depreciation must be set. Specifically, any depreciation profile aimed at smoothing future prices is equally available no matter how the ICB has been set.[158]

- The ACCC implemented the 'wrong' straight line DORC methodology

  APTPPL stated that the draft decision's application of the straight line proxy DORC to the RBP highlights a practical flaw, where the lives of the ORC asset and existing asset are different. It claimed that the straight line proxy DORC approach adopted by the ACCC was understated. As noted above, the ACCC considers that, given the ORC relates to a pipeline with an 80 year life, the correct valuation of an existing pipeline with a remaining life of 23 years (using the straight line approach) is ORC*23/80.

Differences in service potential

APTPPL claims that the differences in the service potential of the optimal and existing pipelines are not great. As noted above, the ACCC considers that there are differences in the service potentials of the two pipelines and that it should be acknowledged that the NPV DORC value is biased in the favour of the service provider.

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158 NERA, 'Critique', p. 20.

Complexity, cost and transparency

The ACCC agrees with APTPPL that establishing the ICB for an existing pipeline is not without its complexities. The ACCC believes that the use of a methodology to value DORC that reduces the complexity and improves the transparency and predictability of the regulatory process is more likely to result in tariffs that satisfy the principles in s. 8.1. The ACCC maintains that straight line DORC fulfils these criteria and while the ACCC acknowledged that this was a less sophisticated approach than NPV DORC, it concluded that it did not mean that it would necessarily produce a less accurate estimate of DORC.[159]

The ACCC notes that APTPPL has not put forth any new arguments which would suggest further effort/complexity would arrive at a 'correct' DORC. The ACCC agrees with NERA:

> …we remain unconvinced by arguments that it is appropriate to sacrifice a great deal of effort and resources in estimating 'DORC'. We do not believe that such effort will necessarily improve accuracy of estimation (defined against any of the possible conceptual benchmarks) and that, even if it did, it would not provide any benefits in terms of promoting the efficient operation of a gas pipeline.[160]

Commercial practice

The ACCC notes that NERA used consistency with commercial practice as one of its criteria to assess the relative advantages and disadvantages of estimating DORC using NPV DORC or straight line DORC. NERA concluded that:

> We have previously argued that it would be desirable if the valuation methodology used to estimate DORC was consistent with general commercial valuation practices. This is based on the view that transparency and predictability of the regulatory process will be aided if a well understood, and widely used, valuation methodology is used. We argued that straight line accounting DORC is a widely used *accounting* valuation methodology. By contrast, NPV cost based DORC is not a widely used commercial valuation methodology (accounting or economic). In our view, these facts are not determinative but do lend some weight to the adoption of straight line accounting DORC as a regulatory valuation methodology.[161]

The ACCC accepts NERA's conclusion. NPV DORC can not be considered to be a widely used commercial valuation methodology given that it was developed in 2004 in the context of the Tribunal's consideration of the appeal concerning the MSP and is not used for commercial purposes.

APTPPL made an assertion in its submission to the draft decision that the ACCC and the ORG were the first to define DORC, and that it was developed in more detail by the ACCC in the1999 DRP.

The ACCC disagrees with this assertion. In the draft decision,[162] the ACCC noted that in its DRP, the ACCC had considered establishing DORC valuations based on alternative methodologies to the straight line approach. However, the ACCC did not

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159 RBP, Draft Decision, p. 32.

160 NERA, 'Critique', p. 25.

161 NERA, 'Critique', p. 25f

162 RBP, Draft Decision, p. 21.

develop or implement any alternative approaches. In 2000, Agility, in relation to the MSP access arrangement, submitted an NPV approach to calculating DORC which in its opinion was consistent with the principles contained in the DRP. The Agility approach was based on the NPV of future revenues, as opposed to future costs.

The ACCC notes that APTPPL has not put forward any new arguments in support of NPV DORC being a well understood and practised commercial methodology in this section. Instead it criticised NERA's introduction of NPV DORC on the basis that an alternative revenue based DORC was available that would be 'equivalent by virtue of the matching of revenues and costs' and it criticised the NPV DORC for 'assuming away' differences in service potential.[163]

In relation to the first criticism, NERA states:

> …if APT's conception of revenue based DORC is equivalent to NPV cost based DORC 'by virtue of the matching of revenues and costs' then the proposed revenue approach is simply a restatement of, not an alternative to, the cost based approach. (We do not dispute, and never have disputed, the mathematical fact that *if* the present value of future revenues is equal to the present value of future costs then you can use either number interchangeably because, by assumption, both numbers are the same). However, NERA can hardly be criticised for introducing NPV cost based DORC on the grounds that the same approach could be called something different.[164]

In relation to the second criticism, NERA states:

> …we agree that a DORC defined purely on the basis of cost differences fails to adequately account for differences in service potential. A reasonable way to deal with differences in service potential is to estimate their value to customers. That is, the value of the existing pipeline would be reduced relative to a new pipeline to reflect the lower value of services on the existing pipeline provided *to customers*. It is not obvious to us that this need involve any assumption about revenues on either pipeline. Of course, if one *assumed* that revenues differed by the same amount then an equivalent result would be achieved (for the same reasons as described above).[165]

Information asymmetry

The ACCC notes that APTPPL believes NERA's concern about information asymmetry is misplaced. APTPPL maintains that the ORC is the source of most uncertainty in the DORC calculation and that most of the other data requirements are common to both the NPV and straight line methodologies, including the remaining lives of the existing assets and the economic life of the ORC asset.

The ACCC agrees with NERA that the depreciation is the source of the most uncertainty with DORC not the ORC. As NERA states:

> In order to calculate ORC it is necessary to determine the design and cost of constructing the optimal pipeline *now*. In order to calculate the depreciation of this value it is necessary to determine*, in every future year*:
>
> the difference in service potential between the new and existing pipeline; and

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163 APTPPL, 'Response to the Draft Decision', pp. 63-64.

164 NERA, 'Critique', p. 27.

165 NERA, 'Critique', p. 27.

the difference in expenditures on the new and existing pipeline.

This requires the regulator to know the medium to long term planning strategy of the business and the associated expenditures and service levels that would be provided. This information is critical to defining the "D" in DORC and is clearly held asymmetrically with the regulated business.[166]

NERA concludes that:

…if a regulator has enough confidence of future expenditure on the existing pipeline to 'lock in' a particular ICB based on NPV cost based DORC then consistency would suggest that it 'lock in' a long term price path based on the same assumptions about future expenditure. If there is insufficient confidence to do the latter, then it is not obvious why there should be confidence to do the former.[167]

The ACCC agrees with NERA and notes that APTPPL has not proposed a long term price path presumably reflecting the inherent uncertainty in doing so.

APTPPL also stated that it does not have asymmetric access to the four parameters (age factor, tech, prod, opex[168]) used in the NPV DORC calculation. It also stated that the choice of discount rate and treatment of taxation are matters of principle and it was misleading to characterise them as contributing to uncertainty or variance.

The ACCC disagrees that the four parameters used in the NPV DORC calculation are not based on asymmetrically held information with the service provider. The age, tech prod and opex parameters are based on capital cost and operating and maintenance expenditure information held by the service provider. The ACCC relies on the service provider to provide this information to establish the value of the four parameters.

In conclusion, the ACCC disagrees that both the NPV DORC and straight line DORC have the same data requirements. As noted above, a forecast capacity ORC is appropriate for the NPV DORC calculation and an existing capacity ORC is appropriate for the straight line DORC calculation. Further, the NPV DORC calculation requires future capital costs and operating costs which requires estimates as to timing and to how these costs may vary from the current cost of undertaking the same expenditure (the age, tech and prod factors). The ACCC considers the information requirements of the NPV DORC approach to be much more than the straight line approach and confirms its conclusion that access to this information is asymmetric.

The ACCC notes that when the NPV DORC model used for this final decision is adjusted to reflect the new entrant tax position and a real post tax WACC consistent with APTPPL's proposed real pre tax WACC of 6.9 per cent, the resulting change in the calculated DORC indicates that these two aspects account for much less than half the variance between the ACCC DORC estimate and APTPPL DORC estimate. The differences in APTPPL's and the ACCC's existing pipeline replacement schedules is of much greater significance, accounting for more than half the total difference between the ACCC DORC estimate and the APTPPL DORC estimate (after adjusting it to use tax modelling and a post-tax WACC – two elements of the ACCC's draft decision to

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166 NERA, 'Critique', p 27f.

167 NERA, 'Critique', p 28.

168 APTPPL did not specifically mention the four parameters

which APTPPL has agreed).[169] It is therefore incorrect for APTPPL to claim that deciding the discount rate and treatment of taxation will make the feasible range of NPV DORC 'very much narrower'.[170] The ACCC also notes that the output of the model is quite sensitive to the assumption about how operating costs increase with the age of the pipeline.

Pre tax and post tax discounting

The ACCC notes that APTPPL has accepted the use of a post tax WACC and the modelling of tax concessions separately.

Weighted average life vs. separate treatment of assets

The ACCC notes that APTPPL has accepted the treatment of each asset individually with respect to remaining lives for calculating the cost based NPV DORC.

Conclusions on and calculation of the ICB

The code states that normally the value of the ICB should fall within the range of DAC and DORC. Consideration of the objectives in s. 8.1 supports this position in this case.

The ACCC has placed greater weight on DORC as it is a forward looking measure which better reflects the expected future use of the RBP. The ACCC considers that the regulatory value of the RBP should be greater than the DAC. At the same time, it is cognisant of the contributions users have made to expansions of the pipeline and of the requirement that assets are only depreciated once.

The ACCC notes that in the past, for those regulated pipelines for which the ACCC has set the ICB equal to DORC, it has used the straight-line approach to depreciation. For the reasons outlined above, the ACCC concludes there is not sufficient justification for it to deviate from its usual straight line approach to establishing the DORC. Moreover, straight-line DORC is considered much more likely to produce an ICB which satisfies the principles in s. 8.1. It also concludes that the use of straight-line DORC is justified under s. 2.24.

As discussed in 2.2.7 above, the ACCC has decided to exclude the value of past users' contributions from the calculation of the ICB.

Table 2.2.7.1 below shows the basis for deriving the ICB of $251.11.

This amount is specified in Final decision amendment 01 below.

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169 As expected by NERA: see NERA, 'Critique', p. 27.

170 APTPPL, 'Response to the Draft Decision', p. 9.

Table 2.2.7.1: ACCC proposed ICB calculations by segments

	Life (years)	R/Life[a] (years)	Cost	ORC	DORC	ICB
				$m (June 2006)		
Pipeline				374.9	261.6	235.0
Compressors				48.7	18.7	0.0
Easements				13.8	13.3	13.3
Communications				5.0	3.3	3.3
Sub-total				442.4	296.9	251.6
Less linepack				0.5	0.5	0.5
Total				441.9	296.4	251.1
Allocation						
Pipes						
Original	60	23	82.7	135.6	39.0	39.0
Looping 1	80	62	7.2	11.8	9.2	0.0
Looping 2	80	64	8.4	13.8	11.0	0.0
Looping 3	80	72	14.0	23.0	20.7	14.3
Looping 4	80	75	19.2	31.4	29.4	29.4
Looping 5	80	77	59.3	97.2	93.5	93.5
Looping 6	80	77	10.5	17.2	16.6	16.6
Lateral	80	75	27.5	45.1	42.2	42.2
Subtotal			228.8	374.9	261.6	235.0
Compressors						
Dalby	35	11	1.3	7.9	2.5	0.0
Kogan	35	11	0.8	4.7	1.5	0.0
Oakey	35	12	1.0	6.0	2.1	0.0
Condamine	35	13	1.4	8.4	3.1	0.0
Yuleba	35	15	1.8	10.5	4.5	0.0
Gatton	35	16	1.9	11.1	5.1	0.0
Subtotal			8.3	48.7	18.7	0.0
Easements	1000	963		13.8	13.3	13.3
Communications	15	10		5.0	3.3	3.3
Less linepack				0.5	0.5	0.5
Total				441.9	296.4	251.1

Notes: Some columns may not add up due to rounding.

(a) R/Life = Remaining life.

Final decision amendment 01

Before APTPPL's revised access arrangement for the RBP can be approved, the ICB must be set at $251.11m.

2.3 New facilities investment

2.3.1 Code requirements

The code (ss. 8.15-8.16) allows for the capital base to be increased where additional capital costs are incurred in constructing or acquiring new facilities for the purpose of providing services. The amount of the increase is the actual capital cost provided that the investment is prudent in terms of efficiency, in accordance with accepted good industry practice and is designed to achieve the lowest sustainable cost of delivering services.

Furthermore, the regulator must be satisfied that the anticipated incremental revenue exceeds the cost of the investment, that the new facility either has system wide benefits (justifying higher tariffs for all users), or that the new facility is necessary to maintain the safety, integrity or contracted capacity of services.

Under ss. 8.18 and 8.19 of the code an access arrangement may state that a service provider may undertake new facilities investment if these criteria are not met. To the extent that an investment does not meet the s. 8.16 criteria or has a speculative element, the addition to the capital base needs to be correspondingly reduced.[171]

Reference tariffs may be determined on the basis of forecast investment during the access arrangement period, provided that such investment is reasonably expected to pass the requirements noted above when the investment is forecast to occur (s. 8.20 of the code). However, the inclusion of forecasts does not necessarily mean that the criteria contained in s. 8.16 of the code have been satisfied. The regulator may reserve its judgment until the time the investment is undertaken or at the next review of the access arrangement. The code (s. 8.22) also states that the reference tariff policy should specify how the new facilities investment is to be determined for the purposes of s. 8.9, including how discrepancies between forecast and actual investment are to be reflected in the capital base at the commencement of the next access arrangement period (so as to meet the objectives of s. 8.1 of the code). The alternative is for the regulator to determine how the expenditure will be treated for the purpose of s. 8.9 at the time a revision to the access arrangement is submitted to the regulator.

2.3.2 Current access arrangement provisions

The access arrangement does not currently include a new facilities investment policy.

2.3.3 APTPPL proposal

APTPPL proposes that it may undertake new facilities investment that does not meet the requirements of the code for inclusion in the capital base, subject to the extensions and expansions policy.

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[171] That portion of the investment which is of a speculative nature is held in the speculative investment fund and may be added to the asset base at a later date when it meets the criteria of s. 8.16.

APTPPL proposes not to include any capital expenditure for expansion or extension of the pipeline. The reference tariff it proposes is to apply only to the existing capacity. Whether capital costs of any capacity expansion are added to the capital base will be determined as part of the consideration of the next access arrangement revisions, in or around 2011.[172]

However, minor capital expenditure and stay in business capital expenditure are included in the calculation of the proposed reference tariff. This forecast capital expenditure for the RBP consists of the following items:

- pigging program in 2007 and 2010
- pipeline excavation and inspection program
- coating defect assessment in 2009
- compressor overhauls from 2007 to 2011
- minor capital and stay in business capital
- access arrangement costs (capitalised over the length of the access arrangement), and
- the RBP proportion of a new APT IT system.

APTPPL states that the amounts included in the calculation of total revenue represent the efficient cost of work required for the continued safe and reliable operation of the pipeline. In particular, the forecast expenditure reflects a program of work required to be undertaken to ensure the ongoing integrity of the RBP.

Amounts have been allowed for pigging of the RBP in two years to reflect the fact that both pipes (DN 400 and the DN 250) need to be pigged. This is consistent with Australian Standard AS 2885.3 which requires periodic inspections (with frequency dependent on the condition of the pipeline) and the *Queensland Petroleum and Gas (Production and Safety) Act 2004* which requires pigging of established pipelines at an interval of no longer than 10 years.

To recognise the need for additional minor capital work to be undertaken as the pipeline ages, some costs have been escalated by 1 per cent on a year to year basis. APTPPL's forecast capital expenditure is shown in table 2.3.3.1.

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172 APTPPL, *Roma Brisbane pipeline access arrangement - response to ACCC request for information dated 2/3/06 and 24/3/06*, p. 21.

Table 2.3.3.1: Forecast capital expenditure

Capital expenditure	2006–07	2007–08	2008–09	2009–10	2010–11
	$m (July 2006)				
Pigging	1.00	-	-	0.66	-
Coating defect assessment	-	-	0.17	-	-
Pipeline excavation and inspection	0.19	0.19	0.19	0.19	0.20
Compressor overhauls	0.31	0.32	0.32	0.32	0.32
Minor and stay in business capital	2.04	1.59	0.94	0.81	0.71
Access arrangement costs	0.50	-	-	-	-
IT system upgrade	0.10	-	-	-	-
Total	4.14	2.09	1.62	1.98	1.23

Source: APTPPL, 'Access arrangement Information', p. 13.

2.3.4 Submissions in response to the revised access arrangement

QGC stated that it considers that periodic predictable costs such as routine compressor overhauls and access arrangement review costs should be recovered over the access arrangement period. However, it sought clarification as to which capital costs APTPPL will bear and which costs the shippers will bear. The actual operating costs such as compressor maintenance/overhaul that APTPPL may expend should be amortised ('smoothed') over the periods between occurrence by use of a sinking fund or accrual. QGC noted that APT's last two annual reports indicated that nationwide it spent less than $5m per annum on stay in business capital.

2.3.5 Draft decision

In its draft decision, the ACCC noted that certain provisions of APTPPL's pipeline licences require (amongst other things) periodical in-line inspections to monitor the integrity of the various pipelines in the RBP.

The ACCC assessed the proposed capital expenditure and was satisfied that it was reasonably likely to pass the requirements of s. 8.16(a) at the time the capital expenditure is forecast to occur.

The draft decision noted that approval by the regulator to allow the reference tariff to be based on forecast capital expenditures did not mean that the capital expenditure will be automatically included in the capital base. That is, the code allows the regulator to decide at a later date (for example, when the investment is made or at the next review of the access arrangement) whether the capital expenditure passes the tests under s. 8.16 of the code.

The ACCC's draft decision noted that the code allows the service provider to specify the approach for inclusion of the capital expenditure in the capital base, including adjustments for any discrepancies between forecast costs and actual costs. APTPPL had not specified any such approach in its proposed revised access arrangement. Accordingly, the regulator will assess any new facilities investment incurred in the access arrangement period against the requirements of the code.

2.3.6 Submissions in response to draft decision

APTPPL noted that the draft decision has accepted 'stay in business capital costs' as proposed. There were no amendments required to the access arrangement in relation to capital expenditure. APTPPL acknowledged that capital spent in the access arrangement period would be subject to review under s. 8.16 of the code. However, it stated that the RBP access arrangement and IT system costs were likely to be more than forecast and may have to be revised.[173]

2.3.7 Final Decision

The ACCC remains of the view that the proposed forecast capital expenditure is appropriate for the RBP access arrangement. APTPPL's actual capital expenditure will be assessed under the s. 8.16 provisions of the code when it lodges its next revisions to the access arrangement.

The ACCC also considers that APTPPL's proposed new facilities investment policy is appropriate for the RBP access arrangement.

The ACCC notes that while APTPPL has raised the possibility of revising its access arrangement and IT system costs, it has not provided any detail as to the possible revised costs such as their quantum. If APTPPL proposes such changes to the access arrangement as part of the current assessment process, the ACCC will need to consider whether comment should be sought from interested parties on associated information prior to finalising that process.

2.4 Capital redundancy

2.4.1 Code requirements

Once the value of the initial capital base is established, the capital base for each subsequent period is determined as the value of the capital base at the start of the preceding period plus new facilities investment (or the recoverable portion), less depreciation and redundant capital (s. 8.9 of the code).

Section 8.27 of the code allows a reference tariff policy to include (and the regulator may require that it include) a mechanism that will remove redundant capital from the capital base. Such an adjustment would occur at the start of the next access arrangement period to:

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[173] APTPPL, 'Response to the Draft Decision', p. 37.

- ensure that assets which cease to contribute to the delivery of services are not reflected in the capital base, and
- share costs associated with a decline in sales volume between the service provider and users.

Before approving a reference tariff which includes such a mechanism, the relevant regulator must take into account the uncertainty such a mechanism would cause and the effect that uncertainty would have on the service provider, users and prospective users. If a reference tariff does include such a mechanism, the determination of the rate of return (under ss. 8.30 and 8.31) and the economic life of the assets (under s. 8.33) should take account of the resulting risk (and cost) to the service provider of a fall in the revenue received from sales of services or part of the covered pipeline.

If assets that are the subject of redundant capital subsequently contribute, or make an enhanced contribution, to the delivery of services, the assets may be treated as a new facility having new facilities investment (for the purpose of ss. 8.16(a), 8.17, 8.18 and 8.19) equal to the redundant capital value increased annually on a compounded basis by the rate of return from the time the redundant capital value was removed from the capital base (s. 8.28).

While the code permits a reference tariff policy to include a mechanism to subtract redundant capital from the capital base, it also allows for other mechanisms that have the same effect on reference tariffs while not reducing the capital base (s. 8.29 of the code).

2.4.2 Current access arrangement provisions

The access arrangement currently does not include a redundant capital policy nor has the inclusion of such a policy been considered before this assessment.

2.4.3 APTPPL proposal

APTPPL states that to calculate the capital base at the start of the subsequent access arrangement, the capital base will be adjusted if necessary and to the extent that assets are redundant.[174]

2.4.4 Submissions in response to the revised access arrangement

No submissions were received from interested parties on this issue.

2.4.5 Draft decision

The ACCC noted in its draft decision that APTPPL's proposed revised access arrangement contained the provision that the capital base will be adjusted for redundant assets.

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[174] APTPPL, Access arrangement for Roma Brisbane pipeline, p. 16

In accordance with s. 8.27 of the code, the ACCC took into account the uncertainty arising from the redundant capital policy in determination of the rate of return and the economic life of the assets. In particular, the value of the beta for APTPPL was determined in reference to the redundant capital policy. Also, the ACCC accepted the proposed economic life of the pipeline, considering its calculation to reflect inclusion of the redundant capital policy in the access arrangement.

2.4.6 Submissions in response to the draft decision

APTPPL noted that there were no amendments required to the access arrangement in relation to capital redundancy or the economic life of the pipeline. No other submissions on this issue were received.

2.4.7 Final decision

No new evidence has been raised on this issue. Accordingly, the ACCC remains of the view that the proposed redundant capital policy is appropriate for the RBP access arrangement.

2.5 Rate of return

2.5.1 Code requirements

Section 8.30 of the code states that the rate of return used in deriving a reference tariff should provide a return commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service (as reflected in the terms and conditions on which the reference service is offered and any other risk associated with delivering the reference service).

Section 8.31 states that the rate of return may be set on the basis of the weighted average return applicable to each source of funds (for example, equity and debt). These returns may be determined using a well-accepted financial model such as the capital asset pricing model (CAPM). In general, the weighted average of the return on funds should be calculated by reference to a financing structure that reflects standard industry structures for a going concern and best practice. However, other approaches may be adopted if the regulator is satisfied that the objectives set out in s. 8.1 of the code are met.

Section 8.2(e) states that the regulator must be satisfied that any forecast required represents best estimates arrived at on a reasonable basis.

2.5.2 Current access arrangement provisions

The rate of return for the access arrangement has not previously been set in accordance with the code because the tariff elements were set by the derogation.

2.5.3 APTPPL proposal

Drawing upon several assumptions and parameters, APTPPL adopted the CAPM to calculate a return on equity which is an input for its pre-tax real WACC calculation. In

applying the model, it used a range of values when parameters are not readily observable or subject to interpretation and recent market values for parameters that are readily observable.

Using this approach, it derived a pre-tax real WACC range of 5.42 per cent to 7.15 per cent.[175] Details of the parameters adopted are set out in table 2.5.5.5.

APTPPL quoted the ERA 2005 final decision on the proposed access arrangement for the Goldfields Gas Pipeline in support of its approach to use parameter ranges to derive a WACC range. APTPPL quoted the ERA position that:

> The Authority accepts that its task is to consider whether the Rate of Return used for the Derivation of Reference Tariffs in the revised Access Arrangement falls within the range of rates commensurate with the prevailing market conditions and the relevant risk. This Rate of Return will comply with the Code if the Value used is within the range of values that different minds acting reasonably might attribute to the Rate of Return, applying the methodology of the CAPM that was chosen by GGT. In undertaking this task, the Authority has given consideration to the range of values within which the Rate of Return might be supported by reasonable minds as being commensurate with prevailing conditions in capital markets.[176]

Further the ERA stated that '... the range of values that would comply with the code should not include the values that lie within the lower ten percent or upper ten percent of the range that may be derived by the application of the extreme values for each of the parameters of the CAPM'.[177] APTPPL truncated its pre-tax real WACC range, consistent with the ERA's approach, resulting in a range of 5.42 per cent to 7.15 per cent.

From within this range it nominated a pre-tax real WACC of 6.90 per cent to be used in calculating its reference tariff. APTPPL provided no reasons as to why it nominated 6.90 per cent from within its proposed range as its cost of capital parameter.

2.5.4 Submissions in response to the revised access arrangement

Submissions received did not make substantial comments on APTPPL's proposed rate of return. However, both Energex and QGC commented on the risk associated with the pipeline.

Energex was of the view that:

> ... if the ACCC accepts the proposal that the access arrangement only apply to current capacity then it should elect to use a low equity beta in response.[178]

QGC was of the opinion that due to the 'extraordinary growth observed in the industry it is difficult to identify a downside risk'.[179]

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175 APTPPL, 'Access arrangement information', para. 3.5.

176 ibid., p. 15.

177 Economic Regulatory Authority, *Final Decision on the proposed Access Arrangement for the Goldfields Gas Pipeline,* 2005, para. 93.

178 Energex, 'Submission', p. 11.

179 QGC, 'Submission', comments on s. 3.5.2.2 of access arrangement information.

2.5.5 Draft decision

In its draft decision, the ACCC noted that APTPPL's proposed revisions to its access arrangement for the RBP were being assessed at a time when the energy sector regulatory arrangements for determination of the cost of capital are undergoing change in the context of establishing the AER as the national economic regulator for all regulated energy businesses, as part of a process to achieving more streamlined regulatory decisions and encouraging commonality in gas and electricity economic regulation where appropriate.

The Australian Energy Market Commission (AEMC) has published a Draft Rule prescribing WACC parameters (including an equity beta of one and a debt equity ratio of 60:40) for electricity transmission.[180] Legislation establishing the economic regulatory framework for gas transmission, gas distribution and electricity distribution is currently being drafted by governments. It is possible these developments may have implications for how the cost of capital should be established in the future.

The ACCC took into account these changes and considered it appropriate to adopt a cautious approach to moving from established parameters for determining the cost of capital.

Contemporary market data was relied upon to establish whether APTPPL's proposed WACC is consistent with the code. Given the unsettled changes to legislation and rules, it was considered appropriate that the debt to equity ratio and equity beta should be assessed consistently with past regulatory decisions.

However, the ACCC noted that in any future decision, consistent with applicable legislation, code or rules, the regulator would be entitled to revise its assessment of these parameters taking into account a settled view on market data.

'Range' approach

In deciding whether a service provider's proposed WACC satisfies the requirements of the code, the ACCC stated in the draft decision that it believed that the proper approach is to compare the service provider's proposal to the ACCC's best estimate of the outcomes that satisfy those requirements. The ACCC emphasised that a service provider's proposal will not be rejected simply because it does not equate to the ACCC's position. Rather, the ACCC will examine the reasons for the difference between the two positions. If those reasons indicate that the service provider's proposal is outside the range of proposals that would satisfy the requirements of the code, then the ACCC will withhold approval.

This approach described in the draft decision recognised that, in some cases, more than one outcome might be tolerated by the code. For example, applying this approach, the ACCC would accept a service provider's proposal where the differences between the ACCC's best estimate and the service provider's proposal are not material or where the arguments in support of the respective outcomes do not clearly favour one over the other.

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180 AEMC, *Draft Rule Determination, National Electricity Amendment (Economic Regulation of Transmission Services) Rule* 2006, s.6A.6.2.

The ACCC believed this to be consistent with the observations in *Re Michael; Ex parte Epic Energy*[181] and *Application by GasNet Australia (Operations) Pty Ltd,*[182] and that it provided a practical framework for application of these decisions in the regulatory environment established under the code. This approach:

- avoids the need for debate about whether a figure is the 'correct' outcome or the upper boundary of a 'reasonable range'
- focuses on the reasons for the service provider's proposal and the regulator's response, rather than mechanically comparing a proposed figure with a range of figures
- adheres more closely to ss. 8.2(e) and 8.6 of the code by enabling the regulator to reasonably determine, where necessary, the outcome that best satisfies the code requirements.

Pre-tax and post-tax

The WACC is a measure of the total cost of capital, with the cost of debt and return on equity weighted in accordance with a benchmark capital structure. The WACC may be expressed on a post-tax, pre-tax or vanilla basis and within a nominal or real framework. Under the post-tax approach, tax liabilities are accounted for in the cash flows. In contrast, the pre-tax approach contains an allowance in the rate of return to cover tax liabilities.

APTPPL proposed the use of a pre-tax approach to calculating its cost of capital. It considered this to be preferable as it avoids the need for modelling for tax payments and is an approach applied by several other regulators.[183]

The ACCC approach to calculating the revenue requirements of a service provider is to use a post-tax revenue model. Further details of this approach may be found in the ACCC's *Post-tax Revenue Model Handbook*.[184]

In theory, these two approaches can produce the same result (in NPV terms over the life of the project, not in each year) if the factor for tax contained in the pre-tax WACC reflects the effective tax rate. APTPPL used the statutory tax rate of 30 per cent as an input into its pre-tax calculation. This overstates the tax liability and therefore produces a higher revenue calculation than the ACCC's modelling for the draft decision.

The draft decision noted the following in relation to the pre-tax approach:

- The use of the company tax rate ignores the existence of important aspects of tax legislation that may cause the effective tax rate to differ substantially from the company tax rate. An entity's ability to depreciate assets for tax purposes at a rate that is faster than the decline in the asset's real economic value means that tax

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181 [2002] WASCA 231.

182 [2003] ACompT 6.

183 APTPPL, *APTPPL response dated 7 April 2006 to ACCC's requests for additional information*, response 37.

184 ACCC, *Post-Tax Revenue Handbook*, October 2001.

depreciation differs from actual depreciation resulting in a considerable deferral of tax liabilities.

- The inclusion of the company tax rate in any formula used to derive the pre-tax WACC is likely to result in an overstatement of the effective tax rate and in turn an overstatement of the required return on equity. As a result the rate of return estimated would fail to reflect the return which is commensurate with prevailing conditions in the market for funds and the risks involved in delivering the reference service, and is therefore inconsistent with s. 8.30 of the code.
- The pre-tax approach attempts to compensate for tax liabilities that will not occur until well into the future. As a result it is subject to considerable uncertainty stemming from inflation effects. This introduces an unnecessary level of uncertainty into the cost of capital estimate.

Given the shortcomings associated with the pre-tax approach, the ACCC rejected the pre-tax approach proposed by APTPPL and adopted a post-tax approach to measuring the rate of return. To determine the allowed return on capital the vanilla WACC was applied to the capital base.[185] The cash flow modelling accounted for tax liabilities and imputation credits. The ACCC considered that this approach produced the best estimate, arrived at on a reasonable basis, of the forecast rate of return (s. 8.2(e)) and is commensurate with the market for funds and the risk involved in delivering the reference service (s. 8.30).

The calculation of an effective tax rate is not required as an input in the post-tax framework. However, based on the post-tax methodology and given the age of the pipeline's assets an effective tax rate can be derived from the cash flows for the purpose of comparison with the estimate provided by the service provider. The ACCC's modelling for the draft decision derived an effective tax rate of 16.26 per cent for the RBP. Appendix C to the draft decision provided general information on the post-tax approach adopted by the ACCC.

Value of imputation credits

APTPPL proposed a gamma value in the range of 30–60 per cent and stated that it is generally consistent with recent regulatory decisions. APTPPL did not nominate a point estimate from within this range. Consistent with ACCC's post-tax approach the value for imputation credits is accounted for in the cash flows.

The value of gamma to an investor largely depends on whether the investor is fully able to utilise the value of the credit. This will depend on the nature of the investor for tax purposes. In this context, the ACCC has to date assumed that the relevant benchmark for regulatory purposes is the assumption that the average equity investor is domiciled in Australia and is entitled to the full benefit of imputation credits.[186] This assumption ensures consistency in applying the CAPM in the context of the Australian market.[187]

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185 Vanilla WACC = $r_e.E/(D+E)+r_d.D/(D+E)$
(where r_e is the post-tax return on equity and r_d is pre-tax cost of debt).

186 Resident individual investors receive the full benefit regardless of their tax position, as franking credits are now treated as a refundable rebate rather than as a tax deduction. Complying

The ACCC's assumption on the segregation of the Australian market has also been advocated by Associate Professor Martin Lally. [188]

In a paper prepared for the ACCC, Lally considered the issue of the relevance of foreign investors in detail and concluded that:

> … continued use of a version of the Capital Asset Pricing Model that assumes that national equity markets are segmented rather than integrated (such as the Officer model) is recommended. It follows that foreign investors must be completely disregarded. Consistent with the disregarding of foreign investors, most investors recognised by the model would then be able to fully utilise imputation credits.[189]

Lally recommended that the ratio of imputation credits assigned to company tax paid should be set at the relevant industry average. Having recourse to the imputation credit/tax ratio of the eight largest listed entities in Australia,[190] Lally concluded that the ratio of imputation credits to tax is close to one for most industries.[191]

To the extent that there were a significant proportion of foreign investors who could not fully avail themselves of the imputation credits, Lally suggested that it was not appropriate to change just one parameter in the CAPM.

Instead, Lally advocated the application of an international version of the CAPM with the CAPM parameters being based on international financial markets.

Using this approach Lally showed that the cost of capital for foreign investors was lower than for investors with a domestic focus and the domestic investor assumption did not compromise the position of foreign investors. The culmination of these two recommendations and the analysis on foreign investors led Lally to conclude that the product of the utilisation rate and the ratio of imputation credits assigned to company tax paid (gamma) should be at, or close to, a value of one for most companies.

A study by Cannavan, Finn and Gray using share futures to value imputation credits argues that it is difficult to detect any value in imputation credits.[192] Other studies such as by Hathway and Officer suggest that assuming a zero value for imputation credits would be a gross error.[193] The ACCC has in the past consistently applied a gamma

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superannuation funds are preferentially taxed, which in the past, may have resulted in imputation credits being eroded. Under the new tax system, franking credits are paid to the fund as a rebate from the Australian Tax Office.

187 If this assumption were to change then modifications would have to be made to a number of other parameters including the market risk premium and the equity beta.

188 M. Lally, *The cost of capital under dividend imputation*, June 2002.

189 ibid, p. 43.

190 The eight entities referred to were: Telstra, News Corporation, National Australia Bank, BHP Billiton, Rio Tinto, Westpac, Commonwealth Bank and ANZ.

191 The evidence for payout of imputation credits is discussed in M. Lally, *The cost of capital under dividend imputation,* June 2002, p. 19.

192 D Cannavan, F Finn and S Gray, 'The value of dividend imputation tax credits in Australia', *Journal of Financial Economics*, vol. 73, issue 1, 2004, pp. 167–9.

193 Neville Hathway and Bob Officer, *The value of imputation tax credits*, Update, 2004, p. 26.

value of 0.50. Australian regulators have almost uniformly adopted the assumption that franking credits created are valued at approximately half of their face value.

In the draft decision the ACCC having considered all the information available on imputation credits, noted that there are good arguments that the value of gamma should be closer to one. However, given the inconclusive nature of the empirical evidence to date on this issue, the ACCC placed weight on consistency with past decisions in deciding on the best estimate value for gamma.

Accordingly, it was concluded that a value of gamma equal to 0.5 has the quality required by ss. 8.30 and 8.2(e) of the code and would achieve the objectives of not distorting investment decisions in pipeline transportation systems (s. 8.1 (d)) and the safe and reliable operation of the pipeline (s. 8.1(c)).

Capital structure

To determine the appropriate weighted average cost of debt and equity in the WACC framework, the value of debt and equity as a proportion of an organisation's total value is required. The ACCC noted that it uses benchmark gearing in determining the WACC, rather than the actual gearing, consistent with s. 8.31 of the code. APTPPL proposed a debt equity ratio of 60:40 and considered it generally consistent with recent regulatory decision.

In the *Statement of principles for the regulation of electricity transmission revenues*— December 2004 (SRP), the ACCC stated that it would not use actual gearing of the regulated entity, but an appropriate benchmark instead. Draft decision table 2.5.5.1 provided a gearing sample of gas network companies that was considered in the draft decision

Draft decision table 2.5.5.1: Gearing levels of gas network companies

Company	Actual gearing[a]
Alinta	43.5
Envestra	83.9
GasNet	75.8
DUET	78.3
APT	68.0

Source: Standard and Poor's, *Industry Report Card: Australian Utilities*, May 2006 and APT announcement to the market – *APA acquires Murraylink*, 30 March 2006.

a debt as a percentage of total capital

The industry gearing as evidenced by the table above indicated an average gearing level of 70 per cent. The ACCC in its MSP final decision noted that a 60:40 debt equity ratio reflects a standard industry structure as evidenced by market data at that time.[194]

No submissions were received suggesting that APTPPL's proposed 60:40 debt equity gearing ratio should be altered.

194 MSP Final decision, p. 115.

The ACCC noted that all of its previous gas and electricity regulatory decisions have consistently applied a 60:40 debt equity gearing benchmark and that other regulators also have consistently adopted the same gearing benchmark in their gas and electricity regulatory decisions.[195] Although contemporary market data suggested that it may be appropriate to change the benchmark debt equity ratio for the draft decision, the ACCC noted that consideration was being given to locking in these parameters as part of changes to electricity and gas rules. In that context maintenance of the status quo was considered appropriate for the draft decision.

The ACCC considered that continuing with the current benchmark for the draft decision would achieve the objectives of not distorting investment decisions in pipeline transportation systems (s. 8.1 (d) of the code); and the safe and reliable operation of the pipeline (s. 8.1(c) of the code).

The arguments did not, on balance, support the rejection of APTPPL's proposal. Accordingly, the ACCC was of the view that APTPPL's proposed debt to equity ratio of 60:40 should be accepted for the purpose of deriving the WACC for the draft decision.

Cost of debt

The ACCC considered that a benchmarking approach to estimating the cost of debt facing the service provider was better than applying the service provider's actual cost of debt and is consistent with s 8.31 of the code. The actual cost of debt may not reflect efficient financing sources. This approach has been applied by the ACCC in past gas transmission regulatory decisions.[196]

The benchmarking approach requires consideration of two distinct empirical questions: the benchmark credit rating of the service provider; and the market observed debt margin associated with the benchmark credit rating.

APTPPL proposed a debt margin of 1.02–1.09 per cent above the risk free rate based on Bloomberg figures for synthetic BBB rated 10-year corporate bond for November 2005. It supports the use of a BBB rating with reference to the Tribunal decision in the *MSP* matter.[197]

The risk-free rate, inflation, benchmark credit rating, debt margin and the best estimate of the cost of debt are discussed below.

Estimating the risk-free interest rate and inflation

The risk-free rate (r_f) is an important parameter used to determine the rate of return (for both debt and equity). It measures the return that an investor would expect from an asset with certainty of returns being achieved. The risk-free rate cannot be observed directly. Most regulators including the ACCC have used the yield on long-term

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195 ERA, *Supplementary submission to the Export and Infrastructure Taskforce*, May 2006, attachment 3.

196 MSP, GasNet Final decision.

197 Application by East Australian Pipeline Limited [2004] ACompT 8.

Australian Government securities (bonds) as a proxy for the risk-free rate, as the risk of government default is generally considered to be very low.

The expected inflation rate can be estimated by:

- the difference between the nominal and indexed bond yields, or
- Commonwealth Treasury's inflation forecasts.

The standard approach is to use the inflation rate implied by the difference between the nominal bond rate and the inflation indexed bond rate, as determined by using the Fisher equation.

APTPPL has proposed a nominal risk-free rate of 5.43 per cent and a real risk-free rate of 2.48 per cent based on the 20 working day average of Australian Government 10 year bond rates (6.25 per cent issue rate, 15 April 2015 bond and 4.0 per cent issue rate, 20 August 2015 indexed bond) for the period 3–30 November 2005. It also applied the Fisher equation to derive an expected inflation figure of 2.88 per cent.

Sampling period

In its draft decision the ACCC accepted that APTPPL's proposal to use a 20-day average sampling period of the risk-free rate satisfies the principles set out in ss. 8.30 and 8.2(e) of the code.

However, given that the bond rate data are published daily by the Reserve Bank of Australia and the CAPM framework requires the adoption of up to date information (subject to constraints imposed by the decision making process) the ACCC sampled a 20 day moving average of the yield on government bonds to 10 August 2006 for the draft decision as against the period 3–30 November 2005 proposed by APTPPL. Adopting contemporary data is necessary in order to satisfy the requirements of s. 8.30 of the code.

Term of the risk-free rate

The ACCC considered the use of a 20-day average sampling period and a 10 year bond to establishing the risk free rate and expected inflation as proposed by APTPPL complies with ss. 8.30 and 8.2(e) of the code. However, APTPPL's use of bonds maturing in 2015 as the proxy for calculating the risk free rate did not result in accurate figures due to the period to maturity being shorter than 10 years.

To estimate the most precise rate corresponding to the proxy term, the ACCC undertook a linear interpolation of the two closest bond series. This approach is consistent with previous ACCC gas access arrangement decisions.[198] The ACCC has used this approach in all of its electricity transmission revenue cap decisions and the AER has applied it in its Directlink final decision.[199] Accordingly, the ACCC interpolated the 15 April 2015 and 15 February 2017 bonds to arrive at a more accurate figure for the risk-free rate.

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198 MSP Final Decision , p. 118.

199 AER, Directlink Joint Ventures' Application for Conversion and Revenue Cap, 3 March 2006.

Based on the methodology outlined above, the use of the nominal 10 year bond rate and 20-day moving average for Commonwealth bond rates at 10 August 2006 results in a proxy nominal risk free rate of 5.92 per cent and an inflation-indexed bond rate of 2.44 per cent (effective annual compounding rate) for the draft decision. Applying the Fisher equation resulted in a market-inferred inflation expectation of 3.4 per cent. The ACCC noted that these rates were only indicative and that the figures would be re-calculated with current data in the final decision.

Benchmark credit rating

APTPPL proposed the use of BBB as the benchmark credit rating.

The draft decision stated that for the benchmark credit rating of the service provider, the relevant code provisions (ss. 8.30 and 8.2(e)) are best met by reference to Australian gas transmission and distribution companies. It is important for consistency with other parameter assumptions that these companies are stand-alone entities and devoid of government ownership.

Table 2.5.5.2 of the draft decision sets out the long-term credit rating for four Australian transmission and distribution gas companies that meet the stand-alone entity criteria and have been assigned a credit rating by Standard and Poor's.[200]

In previous gas transmission determinations, the ACCC sampled AGL, Alinta, Envestra and GasNet.[201] However, it was appropriate to change the sample for the draft decision to achieve a more representative benchmark. The ACCC removed AGL from the sample because its business profile no longer made it an appropriate comparator company.[202] The Diversified Utilities Trust (DUET) was included in the sample given that 70 per cent of its asset and energy mix consists of gas transmission and distribution assets.[203]

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200 A stand-alone entity is defined as an entity that does not have a parent company (a company that holds the majority of voting stock). On companies used to estimate the benchmark credit rating:
—The largest shareholder of GasNet was National Nominees Limited with 7.05 per cent (source: 2005 Annual Report). Since the draft decision APT has made a takeover bid for GasNet and as at 2 November 2006 APT had a relevant interest in approximately 96.93 per cent of GasNet's stapled securities (source: APT notice to the ASX under listing rule 3.3, 2 November 2006).
—Approximately 17.1 per cent of Envestra is owned by Cheung Kong Infrastructure Holdings (Malaysia) Ltd. (source: www.envestra.com.au/share_info, viewed 30 May 2006).
—The largest holder of DUET is AMP Life Limited with 18.79 per cent (source:www.duet.net.au/investor_preso_may06 viewed 30 May 2006).

201 MSP Final decision, p.121; GasNet Final decision , p. 90.

202 Currently, AGL owns no transmission pipelines (it owns a 30 per cent interest in APT) and only 6.78 per cent of its total revenue is derived from gas distribution networks (p. 11, 2005 annual report).

203 DUET fact sheet (source: www.duet.net.au) viewed 30 May 2005.

Draft decision table 2.5.5.2: Credit rating associated with stand-alone gas companies

Company	Long-term rating
Alinta	BBB
Envestra	BBB
GasNet	BBB
DUET	BBB –
APA	na

Source: Standard and Poor's, *Industry Report Card: Australian Utilities*, May 2006.

na – Not available

Based on the data in draft decision table 2.5.5.2, all companies except for DUET had a credit rating of BBB. Although averaging the results may have indicated a rating marginally below BBB, it was evident that the credit rating associated with stand-alone gas companies was BBB. Accordingly, the ACCC considered APTPPL's proposal to apply a BBB credit rating to estimate its debt margin was appropriate and compliant with the code.

Associated debt margin

APTPPL's use of corporate bonds with a term of 10 years was considered appropriate for calculating the debt margin for the draft decision. The 10 year term is consistent with the term of the risk free rate.

Few bonds are issued with a term of 10 years in the Australian market. The ACCC's analysis indicated that there were no BBB rated bonds with a 10-year maturity currently available in the market.

Therefore, for the draft decision, it was not possible to compare the consistency of the BBB yield provided by Bloomberg with actual yields for the bonds being benchmarked (BBB 10-year bond), as suggested by ACG.[204]

On the evidence before it the ACCC saw no reason to not accept APTPPL's proposed use of Bloomberg data for determining the benchmark debt margin for the RBP.

The ACCC considered it appropriate to measure the Bloomberg data by taking an average of the spread over the same period (20 working days) used to determine the risk-free rate. This reduces any potential distortions and results in a best estimate arrived at on a reasonable basis as required by s. 8.2(e) of the code. APTPPL's proposal to nominate a range of observations without averaging them over the same period as for the risk-free rate does not result in a best estimate arrived at on a reasonable basis and was not accepted.

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[204] ACG, *'A' rating debt margin differential between Bloomberg and CBASpectrum—Memorandum*, February 2006.

The ACCC considered that its approach to establishing the debt margin was cogent, transparent and consistent with the determination of the other WACC parameters and satisfies the requirements of ss. 8.30 and 8.2(e) of the code.

Accordingly, the 20-day average of the debt margin for a BBB rated bond based on Bloomberg data over the same period used to measure the risk-free rate (that is, the period ending 10 August 2006) was 1.07 per cent or 107 basis points (effective annual compounding rate). The ACCC noted that these rates were only indicative and the figures would be re-calculated with current data before the final decision.

Debt raising costs

APTPPL proposed a range of 0.125 per cent (12.5 bppa) to 0.25 per cent (25 bppa) per annum as debt raising costs to be added to the debt margin. In support of this range it stated that the Tribunal in the *GasNet* decision allowed 25 basis points per annum (0.25 per cent) and other recent regulatory decisions relating to gas infrastructure have allowed 12.5 basis points per annum.[205] APTPPL did not nominate a point estimate from within this range.

The ACCC considered that APTPPL should be provided a benchmark allowance for debt-raising costs and that the best estimate of these forecast costs is one that is based on current costs.

The ACG report commissioned by the ACCC analysed the necessity of benchmarking debt raising costs within the CPI-X incentive regulation framework and developed its recommended benchmark costs based on current market data gathered from publicly available sources as well as interviews with market participants.[206] The ACCC considers that this approach to estimating debt-raising costs is transparent and consistent with the determination of other WACC parameters. Through reference to current market evidence, this approach provides the service provider an opportunity of earning a stream of revenue that recovers the efficient costs of delivering the service (s. 8.1 (a) of the code).

In developing the benchmark, ACG calculated a gross underwriting fee benchmark of 5.5 bppa based on a five-year term. To this it added allowances for legal and roadshow expenses, credit rating fees for the firm and for each issue of bonds and registry and paying charges. The median bond issue size was determined to be $175m.

The ACCC updated ACG's work on the gross underwriting fee and issue size benchmarks by incorporating publicly available current data. The gross underwriting fee has increased from 5.5 bppa to 6.0 bppa and the median bond issue size increased from $175m to $200m.[207] Draft decision table 2.5.5.3 shows the updated build up of debt-raising costs and the total benchmark for different numbers of bond issues based on the ACG's recommended methodology considered for the draft decision.

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205 APTPPL, 'Access arrangement information', p. 16.

206 ACG, *Debt and equity raising costs*, December 2004.

207 The underwriting fee increase is in line with trends reported on Bloomberg.

Draft decision table 2.5.5.3: Benchmark debt-raising costs for bond issues

Fee	Explanation/Source	1 issue	2 issues	4 issues	6 issues
		$m	$m	$m	$m
Amount raised	Multiples of median bond issue size	200	400	800	1200
		Basis points	Basis points	Basis points	Basis points
Gross underwriting fees	Bloomberg for Aust. Intl. issues, tenor adjusted	6.0	6.0	6.0	6.0
Legal and roadshow	$75K–$100K: Industry sources	1.0	1.0	1.0	1.0
Company credit rating	$30K–$50K: S&P ratings	2.5	1.3	0.6	0.4
Issue credit rating	3.5 (2–5)bps up-front: S&P ratings	0.7	0.7	0.7	0.7
Registry fees	$3K per issue: Osborne Associates	0.2	0.2	0.2	0.2
Paying fees	$1/$1m quarterly: Osborne Associates	0.0	0.0	0.0	0.0
Total	Basis points per annum	**10.4**	**9.2**	**8.5**	**8.3**

Source AGC, *Debt and equity raising costs*, December 2004, updated by ACCC.

Based on the ACG report and updated evidence, the ACCC considered it appropriate to allow benchmark debt raising costs derived in accordance with the above table. The ICB calculated for the draft decision was $250m with an assumed benchmark gearing ratio is 60:40. The notional debt component of the ICB was around $150m ($250m × 0.6). According to the draft decision table 2.5.5.3 the overall debt size of this amount would require one issue with a corresponding transaction cost of 10.4 bppa.

While the range proposed by APTPPL may be consistent with past decisions, it is not a range of outcomes that is based on current costs. Accordingly, the ACCC in its draft decision noted that this range of debt-raising costs is not a best estimate of such costs arrived at on a reasonable basis and nor would it be consistent with prevailing conditions in the market.

For the draft decision, an allowance of 10.4 bppa for debt-raising costs was considered the best estimate arrived at on a reasonable basis as required by s. 8.2(e) of the code. Debt-raising costs could be recovered either through an addition to the WACC or as a direct allowance to operating expenses. ACG recommended either approach. The ACCC considered it appropriate that debt-raising costs be added to the debt margin as proposed by APTPPL.

The cost of debt

As per its range approach, APTPPL proposed a pre-tax nominal cost of debt range of 6.58 per cent to 6.77 per cent and a pre-tax real cost of debt range of 3.59 per cent to

3.78 per cent (including its debt-raising cost estimate). APTPPL did not specify the point estimate it had adopted from within this cost of debt range for calculating its WACC.

The ACCC's best estimates of the parameters needed to calculate the cost of debt determined a pre-tax nominal cost of debt of 7.09 per cent (including debt-raising costs). This converted to a pre-tax real cost of debt of 3.58 per cent. These rates were only indicative as it was noted that they will be re-calculated before the final decision.

The return on equity

APTPPL elected to use the CAPM to estimate the required return on equity. The CAPM specifies the return required by equity holders given the opportunity cost of investing in the market (r_f), the market's own volatility ($E(r_m)$-r_f), and the relative systematic risk of holding equity in a particular entity (β_e). The CAPM formula may be expressed as:

$$r_e = r_f + \beta_e (E(r_m) - r_f)$$

The ACCC regards the CAPM as being an appropriate framework for determining the required return on equity and notes that its use is consistent with the example contained in s. 8.31 of the code.

Market risk premium

APTPPL proposed a market risk premium (MRP) range of 5–6 per cent. It considered that this was generally consistent with recent regulatory decisions, but the upper limit of the range could be higher. APTPPL did not nominate a point estimate from within this range.

Although a substantial amount of research has been undertaken on the MRP, there is continuing debate as to the appropriate value. Submissions received on this issue during the finalisation of the SRP supported a MRP of 6 per cent. However, arguments for both higher and lower values were received from interested parties earlier in the consultation process.

The issue of the appropriate methodology and value to be accorded to the MRP has been the subject of a detailed examination by the Essential Services Commission of Victoria (ESC). Giving consideration to a number of studies and estimations of the magnitude of the MRP, the ESC concluded that the weight of evidence before it provided:

> ... a sound basis for adopting an estimate of the equity premium that is below the point estimate provided by the average of the historical premia, but which otherwise is within the range provided by historical returns, given the variability associated with this measure.[208]

Accordingly, the ESC concluded that a value of 6 per cent was appropriate for regulatory purposes. This issue was more recently considered by the ESC and it continued to adopt a MRP of 6 per cent.[209]

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208 ESC, *Final decision: Review of gas access arrangements*, October 2002, p. 336.

The ACCC considers the value of the MRP, based on a traditional long term view using historic measures (ex-post measure), remains around 6 per cent.[210]

The rationale for using historical data as a measure of the expected MRP is that investors' expectations will be framed on the basis of the market's past performance. A recent analysis indicated that the MRP has fallen to around 3–4 per cent over recent years.[211] However, the ACCC is cautious that this may reflect short term market trends and that statistical estimates over shorter periods tend to have higher standard errors suggesting that caution must accompany the interpretation of these results.

A study undertaken by Associate Professor Lally for the ACCC assessed various approaches and estimates of the MRP. Briefly, Lally determined that across four different approaches the average estimate for the MRP in Australia was 6.1 per cent and concluded that:

> … the range of methodologies examined give rise to a wide range of possible estimates for the market risk premium and these estimates embrace the current value of 6 per cent. Accordingly the continued use of the 6 per cent estimate is recommended. [212]

In 2004 ACG reviewed the empirical evidence on the Australian MRP. Based on the evidence presented which includes an analysis of international trends in MRP, ACG concluded that:

> … there is no justification for applying an MRP different from 6%, as is the practice of Australian regulators. [213]

ACG noted that while the point estimate of the MRP provided by historical evidence suggests a higher figure, the qualitative and empirical evidence from ex-ante models provided persuasive evidence that 6 per cent overstates the expected MRP. More recently, ACG having considered historical estimates, forward looking analysis, surveys of market practitioners and previous regulatory decisions recommended a MRP of 6 per cent as the 'best' estimate for regulatory purposes.[214]

The consultancies prepared by Associate Professor Lally and the ACG indicate that 6 per cent is an appropriate balance of the available evidence on the MRP. Although historical premiums typically suggest a higher MRP than 6 per cent, further estimates of the MRP over more recent periods and forward looking estimates typically suggest a lower MRP than 6 per cent.

Notwithstanding the uncertainty surrounding the derivation of the MRP, a point estimate is needed to derive the post-tax nominal return on equity. In view of the

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209 ESC, *Electricity distribution price review 2005 -10*, Final decision, (2005) Vol. 1 p. 365.

210 There appears to be consensus that the MRP cannot be easily predicted over shorter periods and is likely to have poor statistical properties.

211 Headberry Partners and Bob Lim, *Further capital markets evidence in relation to the market risk premium and equity beta values—for ECCSA*, December 2003, p. 48.

212 M. Lally, *The cost of capital under dividend imputation*, June 2002, p. 43.

213 ACG, *Review of studies comparing international regulatory determinations*, March 2004, p. 113.

214 ACG, *Cost of capital for Queensland gas distribution*, Report for the QCA, December 2005, p. 67.

information currently before it, the ACCC considered a MRP of 6 per cent was consistent with s. 8.2(e) of the code and in turn will provide for a rate of return which is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service (s. 8.30 of the code).

Although APTPPL has not provided a point estimate from within its MRP range of 5–6 per cent, the ACCC noted that its best estimate of 6 per cent for the MRP is the upper limit of the range proposed by APTPPL.

Equity beta

The equity beta measures financial risk that cannot be eliminated in a balanced and diversified portfolio (systematic risk). Inclusion of other technical or operational risk factors is inconsistent with the underlying principles of the CAPM and is not consistent with a market based rate of return. An equity beta of one indicates that the stock's risk is equal to the market portfolio (an equity beta below/above one indicating a lower/higher risk relative to the market portfolio).

APTPPL proposed an equity beta range of 0.8–1.2. It did not nominate a point estimate from within this range and believes that the upper range could be higher for some pipelines.

APTPPL noted that its range is consistent with the ERA's Dampier to Bunbury Natural Gas Pipeline (DBNGP) regulatory decision but wider than the 0.9–1.1 range suggested by the ACG (ACG's Queensland Competition Authority report) on the cost of capital for Queensland gas distribution. It stated that gas transmission pipelines, especially in Queensland, directly supply power stations and industrial loads. It noted that transmission pipelines have an additional degree of upside and downside risk due to the size of their loads which may not be present for distribution companies. It further noted that the difference between the ERA and ACG's ranges could be due to differences in their truncation methodologies.[215]

In previous ACCC decisions it has noted the complexities in estimating an equity beta for regulated activities, mainly because few regulated entities are listed on the stock exchange for a sufficient period of time to produce robust data. Further, the available listed entities provide services in addition to the regulated service, resulting in the estimated equity beta not accurately reflecting the systematic risk of the regulated activities. The accepted approach to address this is to estimate a proxy beta for a group of listed entities operating in a similar line of business. General information relevant to estimating a proxy equity beta was provided in appendix C of the draft decision.

The QGC submitted that given the extraordinary growth observed in the industry it is difficult to identify a downside risk for the RBP and that the risk of maintaining a secure income stream can be assessed as being lower than what has been proposed by APTPPL.[216]

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215 APTPPL, 'Access arrangement information', p. 17.

216 QGC, 'submission', comments on s. 3.5.2.2 of access arrangement information.

Energex submitted that the equity beta should be at the lower end of the proposed range because APTPPL faces lower risks due to its current capacity being fully supported by contracts and it has proposed that the access arrangement only apply to current capacity.[217]

The ACG report to the ACCC on proxy beta values in 2002 suggested an equity beta for Australian gas transmission companies of just below 0.7 based exclusively on market evidence.[218] ACG also considered data for comparable businesses in the USA, Canada and UK. These data produced lower beta estimates, and ACG concluded that this secondary information supports the view that Australian estimates are not understated.

As shown in draft decision table 2.5.5.4, the ACCC derived re-levered (applying the 60 per cent benchmark gearing ratio) equity betas for five comparable Australian firms.[219] These were based on December 2005 and March 2006[220] data from the Australian Graduate School of Management (AGSM).[221] For calculation purposes, the ACCC took into account raw (unadjusted) beta estimates, set the debt beta at zero, and used corresponding gearing levels from Standard and Poor's except for APT which was not included in Standard and Poor's recent report.[222] The sample market beta estimates (average re-levered beta of 0.27 in December 2005 and 0.23 in March 2006) suggested that the ACCC was conservative with its equity beta estimate of one in previous regulatory decisions.[223]

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217 Energex, 'submission', p. 11.

218 ACG, *Empirical evidence on proxy beta values for regulated gas transmission activities*, Final report for the ACCC, July 2002, p. 46.

219 These firms are comparable because they operate in a similar line of business (regulated networks) as the target firm such that the systematic risk of the underlying assets is likely to be of similar magnitude. However, AGL could be considered not representative given that its revenue from regulated networks was only 11 per cent in 2005. The inclusion of AGL in the sample group is continued because a larger sample is preferable and other business areas (non-regulated) are likely to overstate its systematic risk, implying a higher equity beta, and resulting in a more conservative average. Similarly, other non-regulated business of the sample company's is likely to overstate the systematic risk of the company, resulting in a more conservative average.

220 The RBP draft decision had inadvertently stated that the data was based on September and December 2006. This has been restated correctly as December 2005 and March 2006.

221 AGSM uses monthly observations over 48 months of the firm's trading history (with a minimum of 20 observations). Although DUET is a listed company there are insufficient market observations to be included in the AGSM data.

222 Standard and Poor's, *Industry report card: Australian utilities*, May 2006; and APA announcement to the market—*APA acquires Murraylink*, 30 March 2006.

223 These two quarters were the most recent for which AGSM data was available.

Draft decision table 2.5.5.4: Equity beta estimates based on AGSM data

		December 2005 AGSM data			March 2006 AGSM data		
Company	**Gearing**	**Unadjusted β_e**	**De-levered β_a**	**Re-levered β_e**	**Unadjusted β_e**	**De-levered β_a**	**Re-levered β_e**
Australian Pipeline Trust	68.0	0.33	0.11	0.26	0.29	0.09	0.23
Envestra	83.9	-0.08	-0.01	-0.03	–0.16	–0.03	–0.06
Alinta Gas	43.5	0.48	0.27	0.68	0.47	0.27	0.66
Australian Gas Light	33.3	0.21	0.14	0.35	0.14	0.09	0.23
GasNet	75.8	0.17	0.04	0.10	0.13	0.03	0.08
DUET		na	na	na	na	na	na
Average	60.9	0.22	0.11	0.27	0.17	0.09	0.23

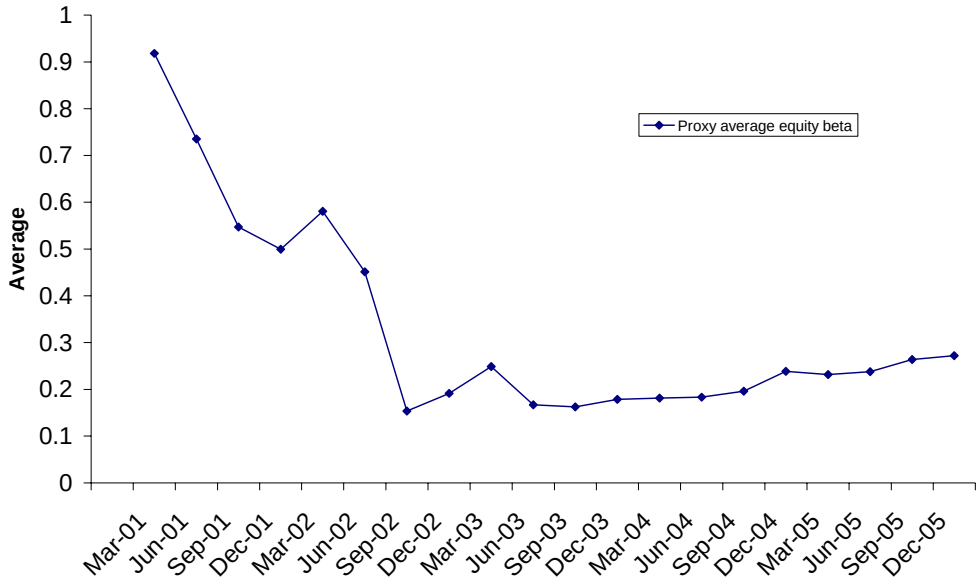
Source ACCC based on AGSM data.

The average equity beta estimates over the past five years for the proxy group of companies based on AGSM data (applying the same methodology as applied to derive the equity beta estimates in table 2.5.5.4)[224] was considered for the draft decision. Figure 2.5.5.1 graphically presents these figures. The comparator group consisted of APT, Envestra, AGL, United Energy, Alinta Gas and GasNet.[225] The draft decision figure 2.5.5.1 demonstrated that the equity beta measurement has been relatively stable below 0.3 from the end of 2002 to 2005.

[224] Gearing levels as disclosed by Standard and Poors various reports over the five-year period have been utilised for the purpose of de-levering.

[225] Not all companies are represented for the whole period of the graph. For example, up to 2002 the comparator group included only AGL, Envestra and United Energy; in September 2003 GasNet was included and United Energy data ceased to be available.

Draft decision figure 2.5.5.1: Average equity beta for proxy group



Source ACCC based on AGSM data and Standard & Poor's gearing data

In 2002, ACG recognised the need for a conservative approach that does not move too far from previous regulatory decisions and recommended a proxy equity beta of one. However, it noted that in the future it should be possible to place greater reliance on market evidence.[226]

Previously, in the MSP and GasNet access arrangement decisions the ACCC having considered the ACG advice adopted an equity beta estimate of one.[227] The ACG in a recent report to the Queensland Competition Authority (QCA), having applied various methods to remove the effects from the dot-com bubble in order to arrive at a forward looking beta estimate concluded that;

> ... empirical evidence, together with the desirability of maintaining stability in regulatory decisions over time and consistency in regulatory decisions across companies justifies the use of an equity beta of 1.0 (for a gearing level of 60%) for the Queensland gas distribution ... .[228]

As set out previously, the ACCC recognises that consistency with the CAPM framework requires that equity holders be compensated only for systematic risk. The ACG cautioned against making ad hoc adjustments on account of perceptions of

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226 ACG, *Empirical evidence on proxy beta values for regulated gas transmission activities*, Final report for the ACCC, July 2002, p. 43.

227 ACCC, MSP Final decision, October 2003, p. 136; ACCC, GasNet Final decision, November 2002, p. 111.

228 ACG, *Cost of capital for Queensland gas distribution*, Report for the QCA, December 2005, p. 58.

differences in non-diversifiable risk in the absence of empirical evidence on the required adjustment.[229]

APTPPL did not provide any relevant information that supported a view that the RBP faces increased systematic risks that justify an equity beta above one. An equity beta of one assumes that the regulated entity experiences the same volatility as the market portfolio in general. APTPPL's comments on the nature of gas pipeline loads and comparison with beta ranges in other regulatory decisions does not indicate that the RBP has a risk profile that is greater than the market in general. The ACCC noted the comments made by QGC and Energex, which suggested that the risks faced by RBP are lower than the average gas transmission company.

APA, one of the sample companies for calculating the proxy equity beta is the parent company of APTPPL. The ACCC's regulatory framework based on a benchmarking approach does not rely solely on the individual service provider's equity beta estimates in determining proxy equity beta values. However, in the context of APTPPL's comments that imply that the RBP is entitled to an equity beta value above one, the ACCC noted that APT's re-levered equity beta estimate for December 2005 and March 2006 was 0.26 and 0.23 respectively.

The ACCC is aware of the potential for bias associated with sampling intervals and noted ACG's comment in its report to the ACCC that monthly sampling intervals are commonly seen as the least susceptible to bias.[230] Nevertheless, the ACCC noted that the proxy beta estimates based on weekly observations tend to be higher than the monthly observations. Contemporary beta estimates based on Bloomberg weekly observations (60 weeks) indicated that the average equity beta for the five comparable companies as at the end of March 2006 was 0.8 (re-levered to 60 per cent debt).[231] The ACG in a recent report noted that, since January 2004 the weekly beta estimates have predominantly been in the range of 0.4 to 0.8 with the average being 0.55.[232]

Although ACG in 2002 cautioned against relying exclusively on empirical beta estimates, it noted that there are sound arguments for relying upon the latest market evidence when deriving a proxy equity beta for regulated gas transmission entities. It further noted that:

> Moreover, reliance upon the most recent market evidence – particularly where betas are drawn from a credible independent beta estimation service – is also a rule that can be replicated across price reviews and industries, and thus go some way towards reducing the uncertainty associated with the regulatory process.[233]

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229 ACG, *Empirical evidence on proxy beta values for regulated gas transmission activities*, Final report for the ACCC, July 2002, p. 55.

230 ACG, *Empirical evidence on proxy beta values for regulated gas transmission activities*, Final report for the ACCC, July 2002, p. 22.

231 Raw data from Bloomberg for the proxy group has been adjusted applying the same methodology as that applied to derive the re-levered equity betas in table 2.5.4.5.

232 ACG, *Cost of capital for Queensland gas distribution*, Report for the QCA, December 2005, p. 54.

233 ACG, *Empirical evidence on proxy beta values for regulated gas transmission activities*, Final report for the ACCC, July 2002, p. 41.

The latest empirical evidence is considered relevant in assessing the proposed equity beta. These data indicated that it may be appropriate to adopt an equity beta value of less than one. Recent regulatory decisions in gas and electricity however have mainly applied an equity beta of one.[234]

The ACCC noted the previously mentioned ongoing changes to the regulatory framework for electricity and gas and in that context the maintenance of the status quo for equity beta was considered appropriate for the draft decision for achieving the code objectives of not distorting investment decisions in pipeline transportation systems (s.8.1 (d)), and the safe and reliable operation of the pipeline (s. 8.1(c)).

In the future, however, the ACCC noted that it may place greater weight on contemporary market information in deriving a best estimate of equity beta in accordance with s. 8.2(e) of the code, noting that this may lead to an equity beta value of less than one.

The return on equity

As per its range approach, APTPPL proposed a range of 9.43–12.63 per cent for its nominal cost of equity but does not specify the return on equity value used in its WACC. As discussed above, the parameters calculated by the ACCC resulted in a post-tax nominal return on equity of 11.92 per cent for the draft decision.

Estimation of the WACC

APTPPL proposed a pre-tax real WACC of 6.90 per cent. It has not nominated a corresponding vanilla WACC. Based on the above reasoning of the draft decision, the ACCC considered that a nominal vanilla WACC of 9.02 per cent represented a rate of return commensurate with prevailing conditions in the market for funds given the risks of delivering the reference service.[235] For comparison purposes the pre-tax real WACC was 5.85 per cent (applying the effective tax rate of 16.26 per cent as discussed in s. 2.5.5 of the draft decision).

The draft decision table 2.5.5.5 compares APTPPL's proposed WACC parameters (point estimates and ranges) with the ACCC's draft decision WACC estimates. The ACCC considered its estimated pre-tax real WACC of 5.85 per cent to be materially lower than APTPPL's proposed pre-tax real WACC of 6.90 per cent. It also note that if the increase in the government bond rate since the receipt of APTPPL's access arrangement is discounted, then the difference would be even higher. The primary reasons for the discrepancy were identified as the treatment of tax and the choice of equity beta value.

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234 ERA, *Supplementary submission to the Export and Infrastructure Taskforce*, May 2006, Attachment 5, National regulatory determinations: equity beta.

235 As required by s. 8.30.

Draft decision table 2.5.5.5: Comparison of WACC parameters and estimates

WACC parameters	APTPPL's proposal		ACCC draft decision
	High	Low	
Nominal risk free rate	5.43%	5.43%	5.92%
Real risk free rate	2.48%	2.48%	2.44%
Inflation rate	2.88%	2.88%	3.40%
Debt to equity ratio	60:40	60:40	60:40
Corporate tax rate	30.0%	30.0%	30.0%
Effective tax rate	na	na	16.26%
Cost of debt margin over risk free rate	1.09%	1.02%	1.07%
Cost of raising debt	0.25%	0.125%	0.104%
Market risk premium	6.0%	5.0%	6.0%
Value of imputation credits	30.0%	60.0%	50.0%
Equity beta	1.2	0.8	1.0
Cost of capital measures			
Nominal return on equity	12.63%	9.43%	11.92%
Nominal Vanilla WACC	na	na	9.02%
Real Vanilla WACC	na	na	5.44%
Pre-tax real WACC range	7.37%	5.20%	na
Pre-tax real WACC range - truncated	7.15%	5.42%	na
Proposed Pre-tax real WACC	6.90%		5.85%

na - Not available.

APTPPL had calculated the pre-tax real WACC from a post-tax real WACC by using the corporate tax rate in its formula. As discussed in section 2.5.5 of the draft decision this approach was considered incorrect when applied in a regulatory framework. Accordingly, the draft decision adopted the post-tax framework as it is the best and most reasonable basis upon which the rate of return can be forecast (s. 8.2 (e) of the code) and is most likely to lead to a rate of return commensurate with prevailing conditions in the market for funds and the risks involved in delivering the reference service (s. 8.30).

As noted above, while APTPPL provided the range of some parameter values used to determine its WACC range, it did not specify the value of those parameters underlying its chosen WACC. The draft decision stated that it can be inferred from APTPPL's parameter ranges and equity beta range of 0.8–1.2 that it had applied an equity beta above 1.0 in achieving its proposed WACC of 6.9 per cent. The ACCC noted the market data which indicated that the contemporary beta estimate for a group of comparable Australian companies could be as low as 0.3 it also noted that recent regulatory decisions have mainly applied an equity beta of around 1.0. Although

placing greater weight on market data suggested that an equity beta value less than 1.0 was appropriate, a conservative equity beta value of 1.0 was considered reasonable.

The ACCC in its draft decision stated that the application of a conservative equity beta value of 1.0 and a gearing ratio of 60 per cent debt will provide APTPPL with a WACC that does not understate its commercial cost of capital.[236]

The rate of return critical to a regulated entity's ability to attract equity funding is the expected post-tax nominal return on equity. The post-tax nominal return on equity associated with the ACCC's pre-tax real WACC adopted for the draft decision was 11.92 per cent. The scope for APTPPL to earn a rate of return in excess of this return on equity within the regulatory framework was noted given that it was an expected return.

Having noted that caution must be exercised before drawing any inferences from regulatory decisions from other jurisdictions, the ACCC observed that its benchmarking indicated that the proposed return on equity of 11.92 per cent for the RBP was comparable with recent gas regulatory decisions. This comparison was provided in table 2.5.5.6 of the draft decision which is reproduced below.

[236] The purchase of the regulated MurrayLink interconnector by APA (the parent company of APTPPL) in March 2006 at 1.5 times its regulated asset value given its fixed maximum allowable revenue until 2013 under the current regulatory period implies that the rate of return given by the ACCC may be generous.

Draft decision table 2.5.5.6: Comparison of gas regulatory returns

	Date	Nominal return on equity (%)	Nominal vanilla WACC (%)
ACCC final decision for MAPS	Sep 2001	12.6	9.1
ACCC final decision for GasNet	Nov 2002	11.2	6.3[(a)]
ACCC final decision for ABDP	Dec 2002	11.7	8.9
ACCC final decision for MSP	Sep 2003	11.3	8.2
ACCC draft decision for RBP	**Aug 2006**	**11.92**	**9.02**
ESC final decision for gas distribution	Oct 2002	11.8	6.8[(a)]
ICRC final decision	Nov 2004	10.8 – 12.0	na
ERA final decision GGT	May 2005	9.5 – 13.4	na
ERA final decision Alinta gas networks	July 2005	9.2 – 11.2	na
ERA final decision DBNGP	Nov 2005	9.5 – 12.7	na
QCA final decision for gas distribution	May 2006	11.9	na

Source: ACCC various decisions; ESC, final decision*: gas access arrangements*, October 2002; ICRC, final decision*: review of access arrangement for ActewAGL natural gas system in ACT, Queanbeyan and Yarralumla*, October 2004; ERA, final decisions: *Goldfields Gas pipeline access arrangement*, May 2005; *review of the access arrangement for the Mid-West and South-West gas distribution system*, July 2005; *review of the access arrangement for the Dampier to Bunbury Natural Gas Pipeline*, November 2005. QCA, final decision*: revised access arrangements for gas distribution networks,* May 2006 (Allgas and Envestra decisions).

na not available

(a) Real vanilla WACC, others are nominal.

Although stakeholders may argue as to the appropriateness of a particular value chosen for a parameter, the ACCC noted in the draft decision that it must consider the overall WACC to be applied in setting the reference tariff and that a debate on the appropriateness of individual parameters should be considered in light of the reasonableness of the overall WACC.

The draft decision considered the effect that estimating individual parameters conservatively has on the regulatory WACC and noted Associate Professor Martin Lally's conclusion in a recent report that:

> ... the practice of applying conservatism at the level of each parameter, rather than to the output price resulting from a series of parameter estimates (or at least to the WACC), is to generate an output price that is not only very conservative but probably far more so than might be anticipated. Furthermore, the resulting degree of conservatism in the output price will not be transparent.'[237]

[237] Lally, M Prof, *The Appropriate Credit Rating for Australian Electricity Transmission Businesses*, March 2006, p. 7.

Recognising the ongoing legislative changes to the regulatory framework the ACCC in its draft decision considered it appropriate not to change the gearing ratio and equity beta to better reflect market data. This conclusion took account of Lally's view that this approach may be overly conservative.

In selecting a point value for each parameter, the ACCC in its draft decision sought to adopt best estimates, arrived at on a reasonable basis that satisfy s. 8.30 and result in the closest alignment with the objectives set out in s. 8.1 of the code. It also recognised the potential conflict in achieving these objectives. Placing more weight on market evidence in estimating an equity beta and benchmark gearing would have resulted in a reference tariff that could be considered more efficient in both level and structure (s. 8.1(e)); better circumvent any potential distortion in investment in upstream and downstream markets (s. 8.1(d)); and better replicate the outcome of a competitive market (s. 8.1(b)). In contrast, such a reference tariff could be considered as increasing the potential for distortions in investment decisions in pipeline transportation systems (s. 8.1(d)); and possibly affect the safe and reliable operation of the pipeline (s. 8.1(c)).

In resolving this conflict consideration was given to s. 2.24 of the code. Overall, the ACCC considered that when there is uncertainty about a particular parameter, a conservative approach will ensure that: there are enough incentives for appropriate investment (s. 2.24(a)); and other aspects of the service, such as the safe and reliable operation of the pipeline (s. 2.24(c)) will continue. Taking a long term view, placing weight on these two factors could also be considered as taking account of the interests of users and prospective users (s. 2.24(f)).

The ACCC proposed the following amendment in its draft decision.

Draft decision amendment 02

APTPPL must amend the rate of return estimates and associated parameters forming part of the access arrangement and access arrangement information to reflect the ACCC's estimates as set out in draft decision table 2.5.5.5. The calculation of reference tariffs must reflect these parameters.

2.5.6 Submissions in response to the draft decision

The only submission received was from the service provider APTPPL. It submitted that the amendment proposed in the draft decision was not reasonable, it should not incorporate the effective tax rate and that it should reinstate the 'range' approach as adjusted for movements in bond rates and inflation. [238] APTPPL's comments are summarised below.

'Range' approach

APTPPL submitted that for the value of each parameter the draft decision adopted a point estimate approach rather than the ranges approach. It stated that this reliance on a

[238] APTPPL, 'Response to the Draft Decision', p.29.

point estimate approach in preference to the ranges approach is incorrect as it fails to properly apply the law as articulated by the Tribunal and recognised as correct by the ERA. It quotes the following paragraph from the *GasNet* case in support of its view:

> The task of the ACCC is to determine whether the proposed AA in its treatment of Rate of Return is consistent with the provisions of s. 8.30 and s.8.31 and that the rate determined falls within the range of rates commensurate with the prevailing market conditions and the relevant risk.[239]

APTPPL submitted that the draft decision's point estimate approach is based on a view that it is necessary to identify 'a best estimate' of the cost of capital as required by the code, notably ss. 8.2(e) and 8.4. It submits that:

> The code does not require the provision of point parameters but an assessment of the rate of return proposed by the service provider. It is incorrect to assume that it is necessary to demonstrate that the point estimates selected the "best" estimate for a parameter or are "most consistent" with code section8.1.[240]

Values of point estimate variables

APTPPL noted that all major point estimate variables were within its proposed ranges and submitted that it has no major issue with any of them to the extent that they fell within its proposed ranges.[241]

Effective tax rate

APTPPL submitted that the calculation of a WACC adopting an effective tax rate does not necessarily better meet all the requirements of the code. It notes the 16.26 per cent effective tax rated applied for the draft decision. Whilst it does not object to the general approach, it draws the ACCC's attention to its view that one of the challenges faced by the ACCC's general approach, and the PTRM in particular, is that it requires the regulator to make tax related decisions which in reality, should be the domain of the service provider.[242]

Value of cost of capital

On the basis that there was a general alignment between its proposed cost of capital range with the point estimate variables selected by the draft decision, it submits that its proposed cost of capital was not unreasonable.

APTPPL submitted that if its proposed range was adjusted for current bond rates, inflation and effective tax rates (as calculated for the draft decision), then the resulting range would be 6.65 per cent to 4.92 per cent. Adopting approximately the same point in the range as that applied in its proposed access arrangement it nominates a pre-tax real WACC of 6.25 per cent. It submits that a pre-tax real WACC of 6.25 per cent

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239 APTPPL, 'Response to the Draft Decision', p.27, quoting from *Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6.*

240 APTPPL, 'Response to the Draft Decision', p. 27.

241 APTPPL, 'Response to the Draft Decision', p. 28.

242 APTPPL, 'Response to the Draft Decision', pp. 24 &28.

(applying the effective tax rate) or 6.90 per cent (applying the 30 per cent tax rate) should be applied in lieu of the 5.85 per cent proposed in the draft decision.[243]

Other comments

APTPPL has suggested that observable company variables are unlikely to be the "best estimates" as factors irrelevant to the regulated asset may affect them. It also commented that market data inherent in asset purchase prices may be impacted by various complicating factors affecting the value paid for an asset.[244] Commenting on the draft decision's reference to the AEMC's Draft Rule prescribing the WACC parameters for electricity transmission regulation, APTPPL stated that it believes that these parameters should act as the floor for any future gas transmission determinations due to the differences in the risk profiles. It believes that to do otherwise would distort investment decisions.[245]

2.5.7 Final decision

APTPPL's submission that the amendment proposed in the draft decision was unreasonable is consistent with its previously expressed view that the ACCC should follow the 'range' approach as proposed by it and adopt its preferred pre-tax approach.

'Range' approach

APTPPL submits that the ACCC has applied a 'point estimates' approach rather than a 'range' approach and that in doing so the ACCC has failed to properly apply the law as articulated by the Australian Competition Tribunal in the *GasNet* decision.[246] This submission suggests that the ACCC's draft decision has not been properly understood.

In *ACCC v Australian Competition Tribunal* the Full Federal Court approved the statement of the Tribunal in *GasNet* that:

> ... it was beyond the power of the ACCC as Relevant Regulator not to approve a proposed Access Arrangement simply because it preferred a different Access Arrangement which it thought could better achieve the statutory objectives.[247]

The present context in which this principle must be applied is the determination of a rate of return. The relevant provisions of the code are ss. 8.30 and 8.31. It has been firmly established that if APTPPL proposes a rate of return that satisfies the relevant provisions of the code, it is beyond the ACCC's power to reject that proposed rate of return simply because the ACCC believes a 'better' rate of return could be adopted.

APTPPL has calculated its total revenue in accordance with a NPV methodology. The NPV methodology described in section 8.4 of the code requires use of a discount rate that would provide the service provider with a return consistent with the principles in sections 8.30 and 8.31. This discount rate must, by definition, be a single figure.

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243 APTPPL, 'Response to the Draft Decision', p. 28 & 29.

244 APTPPL, 'Response to the Draft Decision', p. 29.

245 APTPPL, 'Response to the Draft Decision', p. 29.

246 *Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6.*

247 [2006] FCAFC 83 at [165].

However, this does not mean there is only one possible rate of return figure that would be consistent with ss. 8.30 and 8.31. In *GasNet*, the Tribunal stated that:

> ... there is no single correct figure involved in determining the values of the parameters to be applied in developing an applicable Reference Tariff. The application of the Reference Tariff Principles involves issues of judgment and degree. Different minds, acting reasonably, can be expected to make different choices within a range of possible choices which nonetheless remain consistent with the Reference Tariff Principles.[248]

The task of the ACCC is to decide whether the rate of return proposed by APTPPL is consistent with ss. 8.30 and 8.31 of the code. There is no single figure that will satisfy these provisions to the exclusion of all other figures. The nature of this exercise is such that there will be more than one proposed rate of return that could be consistent with ss. 8.30 and 8.31. This is the 'range' of proposals that will satisfy the requirements of the code. The ACCC's task is not to determine the 'best estimate' of the rate of return, but to decide whether APTPPL has proposed a rate of return that will satisfy the relevant provisions of the code. The ACCC must approve the proposed rate of return if it believes that the proposal is within this allowed range of values, notwithstanding that it believes a different figure would better satisfy the objectives of the code.

In order to determine its proposed WACC, APTPPL has calculated its return on equity using the CAPM, and has calculated its cost of debt by reference to a benchmark risk free rate and debt margin. The calculation of the return on equity and cost of debt using these methods requires values to be attributed to a series of parameters. The ACCC cannot, for example, determine whether the CAPM has been correctly applied without examining the proposed values, or ranges of values, for each of the parameters used to arrive at the proposed rate of return. Some of these parameters require forecasts to be made. Section 8.2(e) of the code requires the relevant regulator to be satisfied that any forecasts required in setting the Reference Tariff represent best estimates arrived at on a reasonable basis.

The ACCC has examined APTPPL's WACC parameters by comparing them with a value or in some cases (such as the equity beta) a possible range of values estimated by the ACCC for each of those parameters.[249] This does not mean the ACCC has departed from the principles articulated by the Federal Court or the Tribunal. Comparing APTPPL's proposed WACC parameters to the ACCC's estimates for those parameters is simply a method of analysis. It is a way of identifying issues that are relevant to deciding whether the APTPPL's rate of return is consistent with ss. 8.30 and 8.31. The fact that there is a difference between a value proposed by APTPPL and the value or range of values estimated by the ACCC does not, by itself, justify the rejection of APTPPL's proposal. However, it does invite consideration of the reasons for that disparity and whether those reasons suggest that APTPPL's proposed WACC is not consistent with ss. 8.30 and 8.31. If this analysis does not support such a conclusion, then APTPPL's proposal must be accepted, notwithstanding that the ACCC's estimate would produce a different figure. However, APTPPL's proposed WACC must be

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248 *Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6 at [29].*

249 Whether a value or range of values is estimated depends on the nature of the parameter and the available data.

rejected where this analysis leads to the conclusion that it is not a proposal that is consistent with ss. 8.30 and 8.31 of the code.

It is argued that the ACCC should approach this task in the manner outlined by the ERA in its final decision on the access arrangement for the Goldfield's Gas Pipeline. Paragraph 282 of this decision states:

> The Authority accepts that its task is to consider whether the Rate of Return used for the derivation of Reference Tariffs in the revised Access Arrangement falls within the range of rates commensurate with the prevailing market conditions and the relevant risk. This Rate of Return will comply with the Code if the value used is within the range of values that different minds acting reasonably might attribute to the Rate of Return, applying the methodology of the CAPM that was chosen by GGT. In undertaking this task, the Authority has given consideration to the range of values within which the Rate of Return might be supported by reasonable minds as being commensurate with prevailing conditions in capital markets. The Authority then considered whether the value proposed by GGT for the Rate of Return for the revised Access Arrangement falls within that range.[250]

The ACCC acknowledges that reasonable minds might properly attribute different values to a WACC parameter or to the rate of return as a whole. The ACCC's method of analysis is designed to determine whether this has in fact occurred. Considering the reasons for different values for a WACC parameter allows the ACCC to determine whether this is simply the result of a difference of opinion between reasonable minds, or whether APTPPL's proposal is in fact outside the range of figures that are consistent with the relevant provisions of the code.

For the reasons set out in the draft decision, the ACCC does not believe it should approach the assessment of APTPPL's rate of return by first defining a range of reasonable values and then deciding whether APTPPL's proposal falls within that range. This is not a rejection of the 'range' principle. The ACCC has simply taken a different approach to determining whether APTPPL's proposal falls within the range of figures that are consistent with the code. The code permits the relevant regulator to determine its own policies for assessing whether a Reference Tariff meets the requirements of s. 8 (s. 8.49). There is nothing in this method of analysis that is inconsistent with the *GasNet* decision. It is similar to the approach used in a recent decision of the Tribunal.[251]

Having examined the method used by APTPPL to determine its proposed WACC and the values, or ranges of values, for the WACC parameters, the ACCC emphasised, at page 66 of the draft decision that it had to make a decision on the overall WACC proposed by APTPPL. For the reasons identified in the ACCC's analysis (chiefly the treatment of tax and the equity beta) the ACCC concluded that APTPPL's proposed

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250 Economic Regulatory Authority, *Final Decision on the Proposed Access Arrangement for the Goldfields Gas Pipeline*, May 2005.

251 In *Telstra Corporation Limited* [2006] ACompT 4, the Tribunal emphasised that its task was to decide whether a proposed access undertaking was reasonable, not whether an alternative undertaking would be more reasonable. But this did not prevent the Tribunal examining the proposed access undertaking by comparison with alternative positions suggested by other parties (eg. See paragraphs [87], [150], [61]).

WACC would not be within the range of proposals consistent with ss. 8.30 and 8.31 of the code.

Having rejected the rate of return proposed by APTPPL, the ACCC was required to specify the amendments necessary in order for the access arrangement to be approved. In that situation the ACCC is, within the framework of the code, at large with respect to the terms of the access arrangement.[252] The WACC parameters specified by the ACCC are those which, in the ACCC's judgment, were consistent with ss. 8.30 and 8.31 and which best satisfied the principles set out in ss. 8.1 and 2.24 of the code.

Pre-tax and post-tax

The ACCC believes the use of a pre-tax approach to calculating the cost of capital, assuming the statutory company tax rate of 30 per cent, does not produce a rate of return that is consistent with s. 8.30 of the code. The ACCC reiterates the reasons stated in the draft decision, in particular:

- the use of the company tax rate ignores the existence of important aspects of tax legislation that cause the effective tax rate to differ substantially from the company tax rate. In particular, it ignores the availability of depreciation for tax purposes. In the draft decision, the ACCC determined that the effective tax rate faced by APTPPL was 16.26 per cent, rather than the 30 per cent company tax rate.
- as a result, the inclusion of the company tax rate to derive the pre-tax WACC will result in an overstatement of the required return on equity and thereby the WACC, resulting in a rate of return estimate that is not commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service and is therefore inconsistent with s. 8.30 of the code
- in addition, the pre-tax approach attempts to compensate for tax liabilities that may occur well into the future resulting in considerable uncertainty due to inflationary effects. Again, this means that a pre-tax approach is unlikely to result in a rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service.

APTPPL's submission in response to the draft decision does not provide any arguments that require a reassessment of any of the reasoning underpinning the rejection of the pre-tax approach. For this final decision the ACCC has used a post-tax, rather than a pre-tax, approach to calculating the rate of return. Forecast tax liabilities have been accounted for in cash flows.

The calculation of an effective tax-rate is not required as an input in the post-tax approach. Nevertheless, for the purpose of comparison with the service provider's pre-tax estimates the effective tax rate has been calculated as an output of the cash flow modelling undertaken by the ACCC. For the purposes of this final decision, the ACCC has calculated an effective tax rate of 16.59 per cent.

Whilst APTPPL does not object to the ACCC's general approach for calculating tax depreciation, it considers the approach requires the regulator to make tax related

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252 *ACCC v Australian Competition Tribunal* [2006] FCAFC 83 at [165], [168].

decisions which, in reality, should be the domain of the service provider. In its revenue modelling for the draft decision (and for past decisions on other pipelines) the ACCC has used the straight line method for tax depreciation. The ACCC considers that the straight line method has a greater present value than the diminishing value method and would therefore be adopted by an efficient service provider. Thus it has been used as the benchmark.[253] In using the efficient service provider rather than APTPPL's position for the benchmark, the ACCC's approach is no different to its approach in other areas of this assessment, such as the adoption of 60:40 as the debt: equity ratio without reference to the actual gearing of the service provider. This does not mean that APTPPL must adopt the same methodology for calculating tax depreciation: it is free to choose its approach.

In conclusion, the ACCC's approach to estimating these tax liabilities demonstrates that the effective tax rate faced by APTPPL will be substantially less than the 30 per cent company tax rate assumed in the pre-tax approach. Although attempting to suggest some uncertainty, APTPPL has not objected to the general approach taken by the ACCC or provided any substantive evidence or arguments in support of the use of tax depreciation rates that differ from those adopted for the draft decision.

Updating the WACC

In its draft decision the ACCC indicated that it would update some of the WACC parameters for the final decision with more current market data. In its response to the draft decision, APTPPL submitted that figures should be adjusted for movements in bond rates and inflation. The ACCC has applied the updated figures derived from the averaging period ending on 24 November 2006 for the following parameters:

- the risk-free rate
- forecast inflation
- the cost of debt.

Risk-free rate

The 20 day moving average for the 10 year nominal Commonwealth bond rate results in a proxy nominal risk free rate of 5.70 per cent and an inflation-indexed bond rate of 2.41 per cent (effective annual compounding rate).[254]

Forecast inflation

The inflation rate implied by the difference between the nominal bond rate and inflation indexed bond rate as determined by using the Fisher equation results in a forecast inflation rate of 3.21 per cent for this decision.

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253 The Government announced changes to the calculation of tax depreciation rates using the diminishing value method as part of the 2006/07 Federal budget. The previous method of using 150 per cent divided by the effective life has now been changed to 200 per cent for assets which started to be held on or after 10 May 2006. In present value terms this has a greater value than the straight line method. The ACCC is currently considering the effect this has on its revenue modelling. In the future the ACCC may apply the diminishing value methodology as the benchmark for assets which started to be held on or after 10 May 2006.

254 Source: Reserve Bank of Australia http://www.rba.gov.au/Statistics/HistoricalIndicativeMidRates/index.html

Cost of debt

As noted above, the ACCC rejects APTPPL's proposal to nominate a range of observations rather than averaging observations taken from the same period as for the risk-free rate. The ACCC has instead decided to use the 20 day moving average benchmark debt margin over the government bond yield for a BBB rated bond based on Bloomberg data. When the most recent available data is used, this results in a figure of 1.14 per cent or 114 basis points (effective annual compounding rate).

Combined with the nominal risk-free rate of 5.70 per cent and the debt raising costs of 0.104 per cent provides a nominal cost of debt of 6.94 per cent for this final decision.

Equity beta

The ACCC's other primary reason for rejecting APTPPL's WACC, namely the equity beta value, has not been addressed by APTPPL. While APTPPL has argued that the equity beta should be in a range between 0.8 and 1.2, it has not identified the value from within that range that it believes should apply. From the ACCC's analysis, it can be inferred that APTPPL has adopted an equity beta higher than 1.0 in achieving its proposed WACC.[255] The ACCC does not believe this produces a rate of return that is consistent with s. 8.30 of the code.

The ACCC analysed APTPPL's equity beta by considering a possible range of values as well as an appropriate point within that range. While the ACCC has suggested that an equity beta of 1.0 would be appropriate, its analysis indicates that this is at the upper end of the range of values that is supported by market data. There is a case for arguing that the upper end of this range should be even lower.

Estimation of the WACC

APTPPL considers its proposed cost of capital to be reasonable given its belief that its cost of capital range was generally in alignment with the point estimate variables selected by the draft decision.

APTPPL's argument is, in part, a product of its 'range' approach. This suggests that the regulator should seek to define a range and to accept any point within that range. In contrast, the ACCC's analysis begins with an estimate of the value or the possible range of values for a parameter. The ACCC considers the reasons for any disparity and whether those reasons lead to a conclusion that the proposed WACC is inconsistent with ss. 8.30 and 8.31 of the code. This approach recognises that the role of the regulator is to determine whether the proposal satisfies the code. It also recognises that there can be a range of acceptable proposals, without necessarily attempting to define

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255 If the WACC parameters adopted for the draft decision are changed to include APTPPL's proposed upper bounds for debt-raising costs, debt margin, and value of imputation credits whilst holding an equity beta value of 1.0, the ACCC modelling results in a pre-tax real WACC of 6.09 per cent. This is lower than the pre-tax real WACC of 6.25 per cent proposed after the draft decision by APTPPL based on its range as adjusted for current bond rates , inflation and effective tax rate (as calculated by the draft decision). This leads to the inference that the equity beta value is higher than 1.0. However, it is noted that the effective tax rate differs from the draft decision because the ACCC's post-tax methodology derives the effective tax rate as an output of the cash flow modelling.

the boundaries of that range, an exercise that is no less exact than establishing a single acceptable point.

In its draft decision the ACCC determined that APTPPL's proposed real pre-tax WACC of 6.90 per cent did not satisfy the requirements of the code. The primary reasons for this conclusion were the treatment of tax and the choice of equity beta value. The ACCC's final decision in relation to these issues is discussed below.

APTPPL has also made two general comments in relation to benchmark variables. First it believes that the AEMC rules on WACC parameters for electricity transmission should act as a floor for future gas regulatory determinations and to do otherwise may distort investment decisions. Second, it considers that market information is unlikely to produce 'best estimates' as factors irrelevant to the regulated asset may affect the data.

In relation to the first, the ACCC does not believe the WACC parameters in the AEMC's Draft Rules are intended to operate as a floor for future decisions. In any event, the ACCC's decision in relation to the RBP is not based on the WACC parameters proposed by the AEMC in its Draft Rules. These are proposed rules that will apply to electricity transmission networks. The draft decision noted the AEMC's Draft Rules only because they are part of a program of on going policy and legislative review in relation to the rate of return. In light of these ongoing changes, and the desire of policy makers to balance certainty and consistency with the need to allow for flexibility to recognize changes in market conditions and finance theory and practice, the ACCC considered it appropriate to adopt a cautious approach to moving from established parameters for determining the cost of capital. These changes are ongoing and are expected to be finalised by mid 2007.[256] To the extent that the ongoing legislative changes may affect the gas regulatory framework the ACCC will necessarily take into account any such developments in the future.

In relation to the second issue, the ACCC's benchmarking approach to calculating the rate of return considers information from businesses with similar profiles and is not limited to the service provider's information. In assessing similar businesses, it is acknowledged that there is potential for the sample to include companies that provide non regulated services in addition to regulated services. However, the ACCC takes account of factors that may affect the relevance of comparators in the sample group when determining the benchmark value for individual WACC parameters. For example, in the draft decision the ACCC removed AGL from its sample of companies for determining the benchmark gearing ratio because its business profile no longer made it an appropriate comparator. APTPPL has not referred to any specific instances of irrelevance in relation to market data considered for the draft decision.

The ACCC notes that since the draft decision, GasNet unit holders have accepted APT's takeover bid resulting in it having a relevant interest of over 96 per cent of GasNet's stapled securities.[257] However, this transaction does not require the ACCC to reconsider its draft decision analysis of WACC parameters.

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256 The Ministerial Council on Energy (MCE) released the exposure draft of the National Gas Law on 7 November 2006.

257 APT notice to the ASX under listing rule 3.3, 2 November 2006.

Overall, the ACCC has reassessed the market data but does not consider that any substantive new evidence is available that affects the outcomes of its analysis of the WACC parameters in the draft decision.

2.5.7 Conclusions

For the reasons stated in the draft decision and in sections 2.5.5 and 2.5.7 above, the ACCC considers that the use of a pre-tax approach to calculating the cost of capital, assuming the statutory company tax rate of 30 per cent, does not produce a rate of return that is consistent with s. 8.30 of the code. The ACCC has instead used a post-tax approach to calculate the rate of return. This approach applies the nominal vanilla WACC for calculating the required return on capital. For purposes of comparison with a service provider's proposal it can be converted to an equivalent pre-tax real WACC. Applying the WACC parameters adopted for the draft decision (updated for current market data as per section 2.5.7) results in a nominal vanilla WACC of 8.84 per cent.

APTPPL in its response to the draft decision submitted that a pre-tax real WACC of 6.25 per cent (applying the effective tax rate calculated for the draft decision) or alternatively 6.90 per cent (applying a 30 per cent tax rate) should be adopted. Applying the effective tax rate of 16.59 per cent (estimated by the cash flow modelling done for this final decision) to the nominal vanilla WACC of 8.84 per cent results in a pre-tax real WACC of 5.86 per cent. APTPPL's pre-tax real WACC of 6.25 per cent (applying the effective tax rate as calculated for the draft decision) results in a rate of return that is closer to the ACCC's figure of 5.86 per cent. However, there remains a material difference between the two figures.

For the reasons stated in the draft decision and in sections 2.5.5 and 2.5.7 above, the ACCC has rejected APTPPL's proposal to calculate its debt margin based on a range of observations rather than averaging observations taken from the same period used for the risk-free rate. The ACCC has instead decided to use the 20 day moving average benchmark debt margin over the government bond yield for a BBB rated bond based on Bloomberg data.

For the reasons stated in the draft decision and in sections 2.5.5 and 2.5.7 above, the ACCC remains of the view that an equity beta value of 1.0, while at the upper end of the potential of range of values, is the appropriate value to be attributed to this parameter. In its response to the draft decision APTPPL only adjusted its proposed range for current bond rates, inflation and the effective tax rate.[258] It has not purported to change the equity beta value used in calculating its WACC. Accordingly, the ACCC has rejected the rate of return based on APTPPL's proposed equity beta.

For these reasons, the ACCC has concluded that APTPPL's proposed rate of return is not a proposal consistent with ss. 8.30 and 8.31 of the code. APTPPL's proposed pre-tax real WACC of 6.25 per cent is rejected.

In determining a rate of return that the ACCC will require by way of an amendment to the proposed access arrangement, the ACCC has endeavoured to adopt best estimates,

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[258] APTPPL, 'Response to the Draft Decision'p.28

arrived at on a reasonable basis, that satisfy s. 8.30 and result in the closest alignment with the objectives set out in s. 8.1 of the code. In resolving the potential conflict in achieving these objectives consideration is given to s. 2.24 of the code.

The revised access arrangement for the RBP should apply a nominal vanilla WACC of 8.84 per cent based on the WACC parameters adopted for the draft decision (updated for current market data as per section 2.5.7 above). This represents a rate of return which is commensurate with prevailing conditions in the market for funds given the risks involved in delivering the reference service (s. 8.30). The post-tax nominal return on equity associated with this nominal vanilla WACC is 11.70 per cent. These WACC parameters and estimates are shown in table 2.5.7.1 below.

The ACCC requires APTPPL to amend its revised access arrangement in relation to the rate of return for the RBP. This is set out below.

Final decision amendment 02

Before APTPPL's revised access arrangement for the RBP can be approved, APTPPL must amend the rate of return estimates and associated parameters forming part of the access arrangement and access arrangement information to reflect the ACCC's estimates as set out in table 2.5.7.1 of this final decision. The calculation of reference tariffs must reflect these parameters.

Table 2.5.7.1 Comparison of WACC parameters and estimates

WACC parameters	APTPPL's proposal	ACCC draft decision	APTPPL's revised proposal	ACCC final decision
Nominal risk free rate	5.43%	5.92%	na	5.70%
Real risk free rate	2.48%	2.44%	na	2.41%
Inflation rate	2.88%	3.40%	na	3.21%
Debt to equity ratio	60:40	60:40	60:40	60:40
Corporate tax rate	30.0%	30.0%	30.0%	30.0%
Effective tax rate	na	16.26%	na	16.59%
Cost of debt margin over risk free rate	1.09 - 1.02%	1.07%	1.09 -1.02%	1.14%
Cost of raising debt	0.25 - 0.125%	0.104%	0.25 - 0.125%	0.104%
Market risk premium	6.0 - 5.0%	6.0%	6.0 - 5.0%	6.0%
Value of imputation credits	30.0 - 60.0%	50.0%	30.0 - 60.0%	50.0%
Equity beta	1.2 - 0.8	1.0	1.2 - 0.8	1.0
Cost of capital measures				
Nominal return on equity	12.63 - 9.43%	11.92%	na	11.70%
Nominal vanilla WACC	na	9.02%	na	8.84%
Real vanilla WACC	na	5.44%	na	5.45%
Pre-tax real WACC range	7.37 - 5.20%	na	6.65 – 4.92%	na
Pre-tax real WACC range truncated	7.15 - 5.42%	na	na	na
Pre-tax real WACC (corporate tax rate)	6.90%	na	6.90%	6.25%
Pre-tax real WACC (effective tax rate)	na	5.85%	6.25%[a]	5.86%

na Not available

a Applying the effective tax rate as calculated by ACCC for the draft decision

2.6 Non-capital costs

2.6.1 Code requirements

Sections 8.36 and 8.37 of the code allow for recovery of the operating, maintenance and other non-capital costs that a prudent service provider, acting efficiently and in accordance with good industry practice, would incur in providing the reference service. Non-capital costs may include, but are not limited to, costs incurred for generic market development activities aimed at increasing long–term demand for the delivery of the reference service.

The regulator must also be satisfied that any forecasts in setting a reference tariff represent best estimates arrived at on a reasonable basis (s. 8.2(e) of the code) and that the non-capital costs comply with the objectives in s. 8.1.

Attachment A to the code (see appendix B to this final decision) requires the disclosure in the access arrangement information of costs (including wages and salaries, rental

equipment, gas used in operations, materials and supply, corporate overheads and marketing) with some disaggregation by zones, services or categories of assets, unless it would be unduly harmful to the legitimate business interests of the service provider, user or prospective user.[259]

2.6.2 Current access arrangements provisions

There are currently no explicit provisions for non-capital costs in the access arrangement as the tariffs were set by the Queensland Minister and included in the access arrangement through the derogation.

2.6.3 APTPPL proposal

APTPPL's total revenue requirement includes non-capital costs incurred in the delivery of the reference service. All non-capital costs have been allocated to the reference service. APTPPL's proposed non-capital costs are provided in table 2.6.3.1.

APTPPL advised that that these proposed costs have been based on direct costs to APTPPL of operating the RBP, including services provided by Agility Management Pty Limited (Agility) on a contract basis, and an allocation of APT corporate overheads.

Table 2.6.3.1: APTPPL proposed total non–capital costs

Non–capital expenditure	2006–07	2007–08	2008–09	2009–10	2010–11
	$m (July 2006)				
Wages and salaries	0.83	0.86	0.88	0.91	0.94
APT other corporate costs	2.08	2.08	2.07	2.06	2.06
Operations, maintenance, insurance, licence fees, security and self insured risk	6.40	6.35	6.29	6.24	6.19
Total	9.31	9.28	9.24	9.21	9.18

Source: APTPPL, 'Access arrangement information', p. 21.

APTPPL advised that operating and maintenance services for the RBP are provided by AGL's (now) former affiliate company Agility under an agreement known as the Pipeline Management Agreement (PMA)[260]. The efficiency of proposed non-capital costs for the RBP in terms of the code requirements is discussed below.

APTPPL's corporate costs

APTPPL advised that corporate costs include items such as salaries, directors' fees, rent, office costs, IT costs, communications costs, costs associated with stock exchange

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259 Section 2.7 of the code requires the provision of access arrangement information. Section 2.8 allows for certain information to be categorised or aggregated to avoid disclosure of confidential information. It also notes that nothing in s. 2.8 limits the regulator's power under the Gas Pipelines Access Law to obtain information.

260 Agility changed ownership in 2006 and is now owned by Alinta.

listing (e.g. share registry fees, annual report preparation) and other costs incurred in the operation of the APT Group. APTPPL's allocation of corporate costs is described below.

Labour costs

APTPPL advised that it has allocated costs for each staff member as follows:

- Staff who perform a significant amount of work directly related to the RBP (e.g. staff in Queensland) are allocated at a percentage reflecting the proportion of their work involving the RBP.
- Staff whose work covers the whole company and whose costs are otherwise not allocated are allocated at approximately 14 per cent to the RBP.
- No cost allocation has been made in the case of staff whose work does not relate to the RBP (e.g. staff in Western Australia).

These costs have been escalated by APTPPL at 6 per cent per annum (in nominal terms) to reflect its forecast rate of increase for salary and personnel costs.

Non–labour costs

APTPPL advised that its allocation process between direct and non-direct costs related to the RBP is as follows:

- Direct costs are allocated 100 per cent to the RBP.
- Queensland office costs are attributed 75 per cent to the RBP. The APT Queensland office is responsible for the RBP and the Carpentaria gas pipeline. The work undertaken is predominantly driven by contract management and legal and commercial issues. This allocation is broadly consistent with the number of contracts on the RBP and the relative amounts of work undertaken on the pipelines.
- The remaining costs are allocated at approximately 14 per cent to the RBP.

These costs have been escalated at APTPPL's forecast CPI increase of 2.88 per cent a year.

Operations and maintenance cost

Agility provides operations and maintenance services for the RBP.

The proposed cost of services provided by Agility and of spare parts is $5.8m in 2006–07 which APTPPL stated 'escalates generally in line with CPI'.[261] The services include all asset management, operations and maintenance work required for the safe and reliable operation of the pipeline. The amount paid to Agility includes the costs of direct operations, operations support, engineering support, pipeline maintenance and easement management. Key categories of this work are:[262]

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261 APTPPL has identified the actual escalation approach in its Confidential Access Arrangement Information, p. 20.

262 APTPPL, 'Access arrangement information', p. 20.

- planned and corrective maintenance on pipework and compressors
- planned and corrective easement patrol and easement management
- planned and corrective cathodic protection
- pipeline monitoring and control (control centre functions, including telemetry)
- asset maintenance planning and scheduling
- asset performance testing and validation
- accounting for day–to–day operations
- regulatory compliance obligations relating to technical regulatory compliance and maintenance of asset records. This includes compliance with licences, the Pipeline Code (AS 2885), environmental regulations and other statutory obligations.

Other costs

This item includes insurance, licence fees and government charges.

Insurance, licence fees, rates and other government charges are a material component of APTPPL's proposed non-capital costs.[263] The estimate for insurance was based on a quote for the stand–alone cost to insure the RBP obtained from the company's insurance broker. Insurance constitutes the major component of this cost category. The other costs in this category are based on actual costs.

These costs have been escalated by APTPPL at its forecast rate for the CPI.

Additional non-capital costs

Security

APTPPL advised that it has included an amount for additional operating expenditure as a result of increased security measures in response to the threat of terrorism. The company is undertaking reviews of the security of key infrastructure with a view to improving the security of key installations. Additional expenditure has been estimated to allow for additional patrols, remote monitoring and programs to assess security risk and development of contingency capabilities.

The amount included in APTPPL's forecast costs is $100 000 per year, escalated at CPI. This represents approximately 1 per cent of non-capital costs. APTPPL advised that the recent ESC decision on Victorian electricity network prices made allowances for additional costs for infrastructure security.[264]

In that decision some distributors sought operating costs to cover security items while others sought capital expenditure. On average across all distributors the amount sought for capital expenditure and operating expenditure was approximately 0.6 per cent of

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263 APTPPL has identified its proposed expenditure on this category in its Confidential 'Access Arrangement Information', p. 20.

264 Essential Services Commission, *Electricity distribution price review 2006–10,*. Final decision, volume 1: statement and purpose of reasons, 2005, p. 309.

total capital expenditure and operating expenditure but individual networks recovered security operating expenditure and capital expenditure up to approximately 1.5 per cent of total operating expenditure and capital expenditure.

Self-insured risk

APTPPL has included an allowance for the cost of self-insurance to cover asymmetric risks it considers to be of low likelihood but high impact. This allowance is sought to cover the costs incurred as a result of a rare event that is not insured.

Risks cited by APTPPL as examples of those for which it self–insures include computer crime, computer breakdown, crisis management, legal actions, extortion and death or disability of key personnel. Its estimated costs of self–insurance are $80 000 per annum. These costs have been escalated at the forecast CPI.

The 2003 GasNet Tribunal decision allowed for asymmetric risks of $172 000 per annum. APTPPL submits that its forecast amount of $80 000 is consistent with the GasNet figure as a percentage of non-capital expenditure.

2.6.4 Submissions in response to the revised access arrangement

Energex considered that it was not in a position to make significant comment on the reasonableness or prudence of the forecast non–capital costs but submitted that the following concerns should be addressed:[265]

- transparent identification of the productivity and efficiency gains built into the forecast non-capital costs
- that any non-capital costs associated with planned pipeline expansions be allocated to those expansions and not included in the access arrangement costs
- that any margin included in the costs for services provided by Agility should be regulated and transparent.

QGC submitted that the operating costs component appeared too high and queried the justification of the costs by reference to ORC rather than actual capital costs. It also questioned whether an affiliated company (Agility) was the only entity capable of managing aspects of the pipeline[266]. QGC noted that APT's annual reports have indicated operating costs nationwide were about 21 per cent of pipeline revenue which would mean that such costs for the RBP should be about $6m rather than around $9m.[267]

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265 Energex, 'submission', p. 11.

266 Agility is now owned by Alinta.

267 QGC, 'submission', p. 14.

2.6.5 Draft Decision

APTPPL corporate costs

Wages and salaries

In its draft decision the ACCC stated that APTPPL's proposed costs contained an arithmetic error. After adjustment for the error, labour costs for the base year of $790 000 were considered to be reasonable.

Publicly available Australian Bureau of Statistics (ABS) quarterly labour price indices for the public and private sector, Australia wide, showed a 5.9 per cent increase in labour costs for the year to March 2006 for the electricity gas and water supply (EGW) industry.[268] In comparison wages in the mining sector increased by 4.9 per cent, construction sector wages increased by 5 per cent and wages for all industries increased by 4 per cent.[269] The ABS data also showed that the overall labour price index had increased by 4.6 per cent in Queensland over the past year, compared with 4 per cent in NSW and nationally.[270] The ABS data showed that wages costs in the EGW industry exceeded the average across all industries in the past four years.

Forecast wage data were not readily available, but in its submission to the Senate Select Committee into Superannuation, the Association of Superannuation Funds of Australia Ltd (ASFA) used an Average Weekly Earnings (AWE) growth of 3.75 per cent per annum when considering long–term superannuation requirements.[271]

The Treasury submission to the same Senate Committee assumed 4 per cent long–term annual wages growth.[272]

In these circumstances the proposed yearly escalation of 6 per cent over the duration of the access arrangement period was considered excessive and inconsistent with s. 8.37 of the code as the proposed costs did not represent the costs that would be incurred by a prudent service provider acting efficiently in accordance with accepted and good industry practice and to achieve the lowest sustainable costs of delivering the reference service. Moreover, they were unlikely to represent best estimates arrived at on a reasonable basis (s. 8.2(e)). Hence it was concluded in the draft decision that if the reference tariff was based on APTPPL's proposed costs it would be likely to recover more than efficient costs (s. 8.1(a) of the code), not replicate a competitive market (s. 8.1(b), result in an inefficient tariff (s. 8.1(e)) and potentially distort investment decisions (s. 8.1(d)).

A 4.6 per cent increase per annum (in nominal terms) was assessed as being consistent with ss. 8.1, 8.2(e) and 8.37 of the code. The equivalent costs in real terms for the

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268 ABS Labour Price Index, cat No 6345.0, March 2006, released 17 May 2006, p. 11, table 6.

269 Ibid.

270 Ibid., p. 7, table 2.

271 The Association of Superannuation Funds of Australia Ltd, *submission to the Senate Enquiry into superannuation and standards of living in retirement*, 12 December 2002, p. 57 table 6.3.

272 The Treasury, *submission to the Senate Enquiry into superannuation and standards of living in retirement*, July 2002.

duration of the access arrangement as proposed in the draft decision are shown in draft decision table 2.6.5.1.

Draft decision table 2.6.5.1 Wages and salary costs

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
APTPPL proposed labour costs	0.83	0.86	0.88	0.91	0.94
ACCC proposed labour costs	0.79	0.80	0.81	0.82	0.83

Accordingly, the ACCC proposed the following amendment.

Draft decision amendment 03

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to amend its benchmark expenditure on wages and salaries as set out in table 2.6.5.1.

Agility management fee

A material component of the non-labour costs proposed by APTPPL was a management fee that it pays to Agility. The management fee is payable in accordance with the PMA and escalates at 75 per cent of the CPI up to a maximum quarterly increase of 2 per cent, and for quarterly increases in excess of this, at 40 per cent of the excess.[273] APTPPL advised the ACCC of the portion allocated to the RBP on a confidential basis. Neither APTPPL nor Agility provided any information indicating that any of this amount represented expenditure actually forecast to be incurred by Agility. In the absence of such information the ACCC could not conclude that the proposed costs were consistent with s. 8.37 of the code as they did not represent the costs that would have been incurred by a prudent service provider acting efficiently in accordance with accepted and good industry practice and to achieve the lowest sustainable costs of delivering the reference service.

Accordingly, the ACCC proposed the following amendment.

Draft decision amendment 04

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to amend its benchmark expenditure on non-labour costs to exclude the amounts proposed for the Agility management fee.

[273] APT, *Buried Treasure* (Offer Document), 5 May 2000, p. 64.

External legal costs

APTPPL proposed a material expenditure for this item.[274] The expenditure covered the cost of legal services associated with haulage contracts for the RBP. The amount was considered in the light of recent actual costs and the anticipated legal work load during the forthcoming access arrangement period. APTPPL advised that it did not expect that the reference service will actually be used by any customer during the 2006–11 access arrangement period. The ACCC considered that if that was the case, all external legal costs incurred during that period would have been more appropriately allocated to the negotiated services.

The proposed expenditure on external legal costs was considered inconsistent with s. 8.37 of the code. Recovery of legal costs associated with negotiated services through the reference tariff was seen as inconsistent with a prudent service provider acting efficiently in accordance with accepted and good industry practice and to achieve the lowest sustainable costs of delivering the reference service. Accordingly, the ACCC proposed the following amendment.

Draft decision amendment 05

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to remove the component for external legal costs from its proposed expenditure.

The ACCC's proposed non-labour costs in the draft decision are set out in table draft decision 2.6.5.2.

Draft decision table 2.6.5.2: APTPPL other corporate costs

Non-capital expenditure	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
APTPPL proposed other corporate costs	2.08	2.08	2.07	2.06	2.06
ACCC proposed other corporate costs	1.05	1.05	1.05	1.05	1.05

Operations and maintenance costs

The ACCC considered the appropriateness of arrangements between APTPPL and Agility for the operation and maintenance of the RBP for establishing the basis for setting operating and maintenance costs benchmarks. It noted that there are other organisations in Australia which possess the expertise to perform those services. The fundamental consideration was therefore whether the services are provided by Agility at an efficient cost. Closely related to the issue of efficiency in this context was consideration of 'corporate memory'. While the RBP has only been ultimately owned

[274] APTPPL has identified its proposed expenditure on this category of expenditure in its confidential *Response to an ACCC request for additional information*, 19 March 2006, p. 15.

by APT since 2000, the pipeline was previously owned by AGL Pipelines from 1988. Until recently, Agility was a wholly-owned subsidiary of AGL and is now owned by Alinta.

The ability to maintain continuity in personnel involved in pipeline operation, maintenance and management or to have access within the company to personnel with direct experience means that Agility may enjoy a significant advantage over any alternative entity in performing the services in question. The existence of corporate memory has significant efficiency benefits in maintaining assets such as pipelines. The ability to draw upon experience of the past can save considerable effort in understanding problems and their causes and can provide insight into possible solutions. Corporate memory is complementary to effort in staying abreast of new developments in order to achieve efficiency in operations.

Operating costs as a proportion of ORC (rather than actual capital costs) is a reasonable benchmark albeit no more than a broad indicator of efficiency. This is particularly so for a pipeline such as the RBP which is almost 40-years old and has had numerous capital expansions since the early 1980s.

Comparison of operating costs with ORC provides a more consistent basis of comparing different pipelines. Comparison of operating costs against pipeline revenue is not a reliable indicator of efficiency because of the wide variability in the characteristics of pipelines and the markets they serve and the fact that throughput is not a significant cost driver (except for compressor fuel).

In the course of its examination of APTPPL's non-capital costs the ACCC sought and obtained detailed information from the company about its costs.

To assist in its assessment of whether APTPPL's estimated costs were reasonable and in accordance with the code, the ACCC sought information about expenditure in the five year period since 2000–01. APTPPL provided information on payments made to Agility under the PMA in the period 2000–01 to 2004–05 on a confidential basis.

Payments to be made to Agility by APTPPL fall under three categories:

- specified services
- additional services
- management fee.

Where additional services are to be performed, those services must be approved by APTPPL in writing before they can be carried out.

APTPPL is provided with details of payments for 'additional services' by Agility and it provided details to the ACCC on a confidential basis.[275] The principal items covered by additional services during the period 2000–01 to 2004–05 arose from the construction of the Peat/Scotia lateral in 2000–01 and stages 4, 5 and 6 of RBP looping. The 121 km

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[275] APTPPL has identified its proposed expenditure on this category in its confidential *Response to an ACCC request for additional information,n* dated 7 April 2006, p. 24.

Peat/Scotia lateral and Looping 4, 5 and 6 (212 km) increased the length of pipeline to be operated and maintained by 333 km from 633 km to 966 km.[276] The other major additional services expenditure in the period was associated with Peat lateral subsidence, compressor station pipeline modification, pig run follow-up work and washout repairs at a creek crossing.

Under the PMA Agility is paid a fixed fee for specified services and while those specified services to be provided are comprehensively defined, no breakdown of this fee is provided in the PMA. APTPPL did, however, provide its own estimate of the breakdown of operations and maintenance on a confidential basis.[277] The management fee is discussed under other corporate costs. Agility also provided a breakdown to the ACCC on a confidential basis (that breakdown is not available to APTPPL).

APTPPL provided a copy of the PMA as well as the asset management plan and the safety and operating plans and for the RBP and the Peat/Scotia lateral (all on a confidential basis). The PMA started with the formation of APT in 2000 and has an initial term of 20 years and rolling five year terms thereafter, terminable on 12 months notice.[278]

The PMA provides for limited renegotiation of some terms at regular intervals. Renegotiations have occurred recently and the scope of work to be performed and pricing have been revised and are being acted on.

The ACCC also held discussions directly with Agility to obtain detailed information on the operating and maintenance costs and all aspects of operation of the RBP. Because that pricing information is not available to APTPPL, the pipeline owner was not present at these confidential discussions. To assist in its analysis Agility provided details of:

- staff who work on the RBP and the proportion of their time spent on RBP activities
- charge–out rates for staff
- the methodology and inputs for calculating charge–out rates
- categories of work
- actual cost of materials used in operations and maintenance.

The charge-out rates and the allocation of staff activities are reasonable for a pipeline having the characteristics of the RBP. Moreover, Agility is able to achieve economies of scale in the provision of certain services including, for example, accounting, asset management, human resources, health and safety and training. The Pipeline Management Supplementary Agreement (PMSA) also contains an annual price escalation for specified services which APTPPL identified to the ACCC on a confidential basis.

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276 APTPPL, 'Access arrangement information', p. 25.

277 APTPPL has identified its estimated break up of proposed expenditure on this category in its confidential *Response to an ACCC request for additional information,* dated 7 April 2006, p. 25.

278 APT, *Buried Treasure* (Offer Document), 5 May 2000, p. 64.

The costs to be paid by APTPPL to Agility for operations and maintenance and hence APTPPL's forecast operations and maintenance costs for the period 2006–11 were considered to be consistent with s. 8.37 of the code.

Other costs

Insurance, licence fees and government charges

Insurance costs have escalated dramatically following the HIH collapse and the September 2001 terrorist attacks in the USA but subsequently fell. APTPPL provided a breakdown of the licence fees and government charges[279] and confidential information about the insurance quote.

The base year cost proposed by APTPPL was considered to be consistent with s. 8.37 of the code. In the current circumstances the escalation of this amount at the rate of CPI was considered appropriate and consistent with the costs that would be incurred by a prudent service provider in accordance with the code.

Additional non-capital costs – security and self-insured risk

APTPPL advised that additional work on security measures was being undertaken in response to a generally increased focus on security for essential infrastructure. It acknowledged that at this stage it could not accurately identify what the costs of responding to additional government requirements were. However, it advised the ACCC on a confidential basis of the broad areas of expected increased spending.[280] As information regarding security measures is potentially of a sensitive nature, the ACCC accepted this confidentiality claim.

The ACCC noted that the total costs faced by service providers vary over time for a range of reasons. Some costs may increase more than average, others may decline. APTPPL provided little information on this item except for anticipated costs of one item.[281]

The ACCC considered that there was insufficient evidence to conclude that an allowance of $100 000 per year was a reasonable forecast that would be consistent with s. 8.2(e) and s. 8.37 and hence represented the costs that would be incurred by a prudent service provider acting efficiently in accordance with accepted and good industry practice and to achieve the lowest sustainable costs of delivering the reference service. To the extent that APTPPL's proposed costs overstated the efficient costs and if the reference tariff was based on those proposed costs, the ACCC considered that APTPPL would have recovered more than efficient costs (s. 8.1(a) of the code), not

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279 APTPPL, *Response to ACCC request for information dated 2/3/06 and 24/3/06,* 7 April 2006, p. 26.

280 APTPPL confidential *Response to an ACCC request for additional information,* 7 April 2006, p. 34.

281 The ACCC notes that some of these costs appear to be, at least in part, of a capital nature. To the extent that this is the case, such expenditure could (subject to s. 8.16) be included in the capital base at the next review. To also include an allowance as non-capital would represent double counting.

replicate a competitive market (s. 8.1(b), result in an inefficient tariff (s. 8.1(e)) and potentially distort investment decisions (s. 8.1(d)).

Given the uncertainty of likely costs at this stage, but recognising that some level of costs are likely to be incurred, for the purposes to the draft decision the ACCC proposed to include $50 000 per annum for the costs of additional security measures. The ACCC noted that any supporting information provided by APTPPL in its response to the draft decision to support its claim for an allowance of $100 000 per annum will be considered. Accordingly, the ACCC proposed the following amendment.

Draft decision amendment 06

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement by reducing the costs for additional security measures from $100 000 to $50 000.

APTPPL included costs for self-insured risk and cited the 2003 Tribunal decision relating to GasNet in which $172 000 per year was allowed. APTPPL proposed an amount of $80 000 based on the proportion of non-capital costs.

It was noted in the draft decision that the appropriate treatment of self-insured risk was considered in a number of the ACCC's decisions and the following proposed approach is set out in its *Statement of principles for the regulation of electricity transmission revenues*:[282]

> The cost of self-insurance will be recognised as an operating expense subject to the implementation of appropriate administrative arrangements including:
>
> - a board resolution to self-insure (i.e. a copy of the signed minutes recording resolution made by the board)
> - confirmation that the TNSP is in a position to undertake credibly self-insurance for those events
> - self-insurance details setting out the specific risks which the TNSP has resolved to self-insure
> - a report from an appropriately qualified actuary or risk specialist verifying the calculation of risks and corresponding insurance premiums
> - ensuring that the cost of self-insurance is recorded as an operating expense in the audited and published income statement, and thereby deducted from the calculation of attributable profits
> - ensuring that a self-insurance reserve (funded by self-insurance premiums charged in the income statement) is established in the audited and published balance sheet
> - ensuring that when a claim against self-insurance is made, that an appropriate deduction to the self-insurance reserve is recorded.

[282] ACCC, *Statement of principles for the regulation of electricity transmission revenues*, 8 December 2004, p. 14.

The ACCC concluded in its draft decision that it was inappropriate to allow for self insurance risk unless these arrangements were in place. Accordingly, the ACCC proposed the following amendment.

Draft decision amendment 07

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must implement appropriate administrative arrangements as described above in this section (2.6.5).

Summary of ACCC proposed non-capital costs

Draft decision table 2.6.5.3 below sets out the non-capital costs that the ACCC proposed in its draft decision.

Draft decision table 2.6.5.3:[283] ACCC proposed non-capital costs

Non-capital expenditure	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
Wages and salaries	0.79	0.80	0.81	0.82	0.83
APT other corporate costs	1.05	1.05	1.05	1.05	1.05
Operations, maintenance, insurance, licence fees, security and self insured risk	6.27	6.21	6.16	6.11	6.05
Total	8.11	8.07	8.02	7.98	7.93

2.6.6 Submissions in response to the draft decision

No submissions were received from interested parties on the non-capital costs other than the submission received from APTPPL.

Wages and salaries

APTPPL submitted that its proposed rate of increase of 6 per cent per annum was consistent with ABS data and the actual wage and salary increases experienced by the APT Group. APTPPL maintains that its proposed rate of 6 per cent is consistent with s. 8.37 of the code. It submitted that a reduction in expenditure on wages and salaries would lead to an increase in recruitment costs and would not necessarily be consistent with s. 8.37 of the code.

APTPPL noted that of the benchmarks which the ACCC included in the draft decision, four were industry-specific and three were general in nature. APTPPL calculated an average of 5.1 per cent of the four industry-specific benchmarks and considered that the increase in wages and salaries should be at least 5.1 per cent.

283 This was incorrectly labelled Table 2.6.5.1 in the draft decision.

Agility management fee

APTPPL does not agree with the exclusion of the Agility management free from its non-capital costs. APTPPL submitted that the draft decision acknowledges the benefits of corporate memory but made no allowance for it. Moreover, APTPPL stated that the Essential Services Commission of Victoria (ESC) and the Queensland Competition Authority (QCA) allowed a third party management fee relating to Envestra's gas distribution networks.

In addition APTPPL submitted that even with the management fee included, APTPPL's overall non-capital costs compare favourably with benchmarks. This in its view supports the argument that the non-capital costs of the RBP are those incurred by a prudent service provider acting efficiently in accordance with accepted industry practice as required by s. 8.37 of the code.

APTPPL also wrote to the ACCC on a confidential basis on 27 November 2006 concerning the management fee.

External legal costs

APTPPL provided new information that the proposed external legal fees did not relate solely to negotiated services. APTPPL stated that the external legal costs component covers numerous items, including:

- agreements relating to the reference service
- variations to existing contracts
- agreements relating to new facilities such as receipt and delivery points which ultimately benefits all users
- general external legal expenses relating to the operation of the business.

Furthermore, APTPPL noted that the draft decision stated that all the costs incurred in providing services using the existing capacity were attributed to the reference service.

APTPPL also provided information on its recent expenditure on external legal costs, which it considers to be confidential, showing that its proposed external legal costs were consistent with past expenditure.

External security measures

APTPPL provided cost estimates, which it considers to be confidential, for each of the areas of spending previously identified and considers that its estimate of $100 000 is reasonable.

Self-insured risk

APTPPL does not agree with the administrative arrangements proposed by the ACCC. APTPPL submitted:

- the draft decision asserts that the ACCC's proposed approach is the only efficient approach and therefore all other approaches are inefficient
- the regulatory processes and instruments for electricity transmission are quite different to those under the gas code

- the selective application of a single extract from the electricity regulatory process amounts to 'cherry picking'
- the requirement that APTPPL complies with the arrangements is inconsistent with the code
- the ACCC is seeking to micro-manage APTPPL's business operations, including to dictate board behaviour and determine accounting practices.

2.6.7 Final Decision

The non-capital costs proposed by APTPPL relate to existing capacity only and do not include the costs associated with any future expansion or extension of the RBP.

Wages and salaries

Section 8.37 of the code provides for the recovery of the non-capital costs that would be incurred by a prudent service provider acting efficiently in accordance with accepted and good industry practice and to achieve the lowest sustainable cost of delivering reference services.

Section 8.2(e) provides that any forecasts used in the setting of reference tariffs must represent best estimates arrived at on a reasonable basis. In the draft decision an array of benchmarks for wages and salaries growth was presented. Most of the benchmarks measure historical increases in wages and salaries. Only two are predictions of increases in wages and salaries. As APTPPL noted two of the benchmarks raised in the draft decision are of a very general nature.

In the draft decision the ACCC proposed an increase on 4.6 per annum based on the change in the ABS Labour Price Index as at March 2006 in Queensland. The equivalent figures for June and September 2006 were 4.8 per cent and 4.5 per cent respectively.[284] Average weekly earnings in Queensland over the past five years and 10 years have increased annually by 4.8 per cent and 4.5 per cent respectively.[285] APTPPL has submitted that a rise of 5.1 per cent per annum should be considered the minimum.

During its assessment of Powerlink's revenue cap for the period 2007–08 to 2011–12[286] the AER commissioned Access Economics to prepare a report on forecast wage rises in Australia. Access Economics' predictions of wage rises in the utilities sector in Queensland are shown in table 2.6.7.1.

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284 ABS, *Labour Price Index*, Cat No 6345.0, table 2, p. 7, September 2006, released 15 November 2006.

285 Derived from ABS, *Average Weekly Earnings*, Cat No 6302.0 (Time Series Spreadsheets), table 13C, August 2006, released 16 November 2006.

286 AER, Powerlink Queensland transmission network revenue cap 2007-08 to 2011-12, 8 December 2006, pp. 77, 126 and 176.

Table 2.6.7.1: Expected wage rises – Queensland utilities sector

	2006-07	2007-08	2008-09	2009-10	2010-11
Expected wage rise (nominal)	5.6%	5.8%	5.3%	3.5%	3.5%

Source: Access Economics, *Wage growth forecasts, a report for the Australian Energy Regulator*, 17 November 2006, p. iii.

The overall forecast costs of wages and salaries for the access arrangement produced by applying the percentages in Table 2.6.7.1 are only minimally different to the costs derived by applying an annual increase of 5.1 per cent. The wages and salaries costs, including corporate costs, approved by the ACCC in this final decision are based on the Access Economics report and shown in table 2.6.7.2.[287]

Table 2.6.7.2: Labour costs approved by the ACCC

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
ACCC approved labour costs	0.83	0.85	0.87	0.87	0.87

Final decision amendment 03

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to include in the non-capital costs the wages and salaries costs as set out in table 2.6.7.2.

Agility management fee

In support of its submission that the Agility management fee should be included in the non-capital costs, APTPPL noted that ESC and QCA both approved similar fees for Envestra's distribution systems. In those matters the ESC and QCA reached their decisions on the total non-capital costs taking into account all the circumstances concerning those matters.

While the ESC and QCA both allowed the inclusion of a third party management fee, they expressed concern about the fee. In relation to Envestra's Victorian distribution network the ESC noted that Origin's entitlement to a management fee based on 3 per cent of total network revenue was in addition to its entitlement to reimbursement of all costs and disbursements. Accordingly, ESC concluded that the fee represented a profit-sharing arrangement rather than the recovery of the costs of undertaking asset management activities. ESC considered that to the extent that the fee represented a

[287] APTPPL has submitted that the costs for wages and salaries for 2005–06 were in $July 2005, not $July 2006 as construed by the ACCC. Hence the minor calculation error alluded to in the draft decision did not occur. The ACCC has accepted this explanation.

profit-sharing arrangement it would have been provided for already in the return on capital.[288] The ESC stated:

> …the Commission [ESC] remains concerned about the extent to which it can rely on costs reported pursuant to contracts entered into by related parties. The Commission is of the view that the long-run interests of users (section 2.24(f) of the Gas Code) will not be served by contracts entered into by related parties for the provision of most of the fundamental activities required to provide reference services, without a competitive tender process. The Commission also considers that such arrangements are not consistent with the public interest in having competition in markets, including the provision of asset management services (section 2.24(e) of the Gas Code).[289]

The QCA expressed concern at the potential for outsourcing arrangements to reduce transparency, particularly where there was a high degree of dependence between the parties.[290]

APTPPL submitted that the Agility management fee should be included in recognition of the value of Agility's 'corporate memory'. The Agility management fee was considered by the ACCC in its final decision on the MSP matter. In that case the ACCC noted that the fee was not payable for any specific service. The ACCC concluded that the fee did not comply with s. 8.37 of the Code. Because details of the agreement with Agility were commercially sensitive, the ACCC's reasons for not approving the fee were contained in Confidential Annexure E to the MSP final decision (2 October 2003). A summary of that annexure and its relevance to the assessment of the RBP access arrangement is contained in Confidential Appendix C of this final decision for the RBP.

For similar reasons to those outlined in the MSP final decision, the ACCC has decided not to approve the inclusion of the Agility management fee in the non-capital costs for the RBP. If the reference tariff was based on APTPPL's proposed costs including the Agility management fee it would recover more than efficient costs (s. 8.1(a) of the code), not replicate a competitive market (s. 8.1(b)), result in an inefficient tariff (s. 8.1(e)) and potentially distort investment decisions (s. 8.1(d)). This position is consistent with that taken on the same item in the MSP access arrangement.

APTPPL submitted that even with the management fee included in its forecast non-capital costs they are consistent with industry benchmarks and that this is supporting evidence that the current RBP operating costs including the management fee are consistent with the costs incurred by a prudent service provider, acting efficiently, in accordance with efficient industry practice, as required by s. 8.37 of the code.[291]

The wording of s. 8.37 does not suggest, however, a top down approach to the assessment of non-capital costs. Benchmarking may provide broad evidence but it does not supplant the assessment of specific costs by the regulator. Given the limitations of

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288 Essential Services Commission, *Review of Gas Access Arrangements*, Final Decision, October 2002, p. 83.

289 ibid, p. 85.

290 QCA, *Revised access arrangement for gas distribution networks: Envestra*, Final Decision, May 2006, p. 119.

291 APTPPL, Response to the Draft Decision', p. 32.

benchmarking (which are discussed in chapter 4 Key performance indicators) the fact that a pipeline may appear to perform relatively well in the benchmarking exercise does not mean that all the costs included in its total non-capital costs would be consistent with the code requirements. If this were the case a clearly excessive cost item could be assessed as acceptable as long as the total costs were not high relative to those of the comparators in the benchmarking exercise.

APTPPL wrote to the ACCC on a confidential basis on 27 November 2006 concerning the management fee. This is discussed in confidential Appendix C. The ACCC concluded that APTPPL did not provide evidence that would alter its assessment outlined above.

Final decision amendment 04

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement by excluding the Agility management fee from its forecast non-capital costs.

External legal costs

In the draft decision the ACCC proposed not to include APTPPL's external legal costs on the basis that they were considered to be related to negotiated services rather than the reference service. In response APTPPL has provided additional information indicating that some of the external legal costs can be attributed to the reference services while some are also common costs. APTPPL also noted the comments in the draft decision that all costs in providing services from existing capacity should be recovered through reference tariffs.

It is appropriate to allocate all costs to the reference service in circumstances where the split of volumes between reference services and non reference services cannot be reasonably estimated. To the extent that volumes under non reference services displace volumes under reference services, under this arrangement neither users nor the service provider are better or worse off.

APTPPL has provided additional information which indicates that not all of the proposed external legal costs relate to negotiated services and that the proposed costs are consistent with costs incurred in recent years. In light of this additional information, and the fact that all costs relating to existing capacity have been allocated to the reference service, the ACCC is satisfied that APTPPL has addressed the reasons for the proposed amendment and an amendment is not required for the revised access arrangement.

Security measures

APTPPL provided additional information in the form of cost estimates (which APTPPL considers to be confidential) for each of the areas of spending on security measures it had previously identified. In light of this additional information the ACCC is satisfied that APTPPL has addressed the reasons for the proposed amendment and an amendment is not required for the revised access arrangement.

Some of the items identified by APTPPL could be construed as capital expenditure rather than non-capital costs. However, given that they are of a minor nature, the ACCC has accepted APTPPL's proposal that they be included as non-capital costs. Nevertheless, as APTPPL's revenue stream will recover these costs during the access arrangement period, it would be inappropriate for APTPPL to re-classify these items as capital expenditure when they are incurred and to propose to roll the costs into the capital base at the commencement of the next access arrangement period.

Self-insured risks

The ACCC does not agree with APTPPL's contention that the self-insurance administrative arrangements described in the draft decision relate solely to electricity regulation and should not be applied to gas regulation. The arrangements are generic in nature and not unique to electricity regulation. Similar requirements are specified in the ACCC's draft greenfields guideline for gas pipelines.[292]

The ACCC does not agree with APTPPL's assertion that the ACCC is trying to micro-manage APTPPL's business, including to dictate board behaviour and determine its accounting practices. The administrative arrangements serve a number of purposes. First, the information assists the ACCC in assessing the reasonableness of the proposed cost of $80 000 per anum. Second, the information is designed to satisfy the ACCC that APTPPL is in a position to self-insure. Third, the accounting requirements are those that a prudent service provider would put into effect.

While self-insurance can provide benefits for the self-insurer it exposes the firm to the risk that one or more of the events which are covered by self-insurance occurs and the company incurs associated costs. The purpose of placing the revenue that recovers the self insurance costs in a reserve is to assist in meeting the costs of any claims and thereby manage the risk to the company. A prudent service provider would adopt such a practice. It is analogous to a firm making annual payments to an external provider.

In summary the administrative arrangements are required so that the ACCC can be satisfied that s. 8.37 of the code is complied with. That is, the proposed costs are those that would be incurred by a prudent service provider acting efficiently and in accordance with accepted and good industry and to achieve the lowest sustainable costs of delivering reference services.

APTPPL stated that the draft decision asserts that the only efficient approach to self-insurance is one that includes these administrative arrangements. However, APTPPL has not proposed an alternative approach to address the ACCC's concerns. Sub-sections 2.37A and 2.41(b) of the code provide the service provider with the opportunity to submit alternative approaches to address the concerns identified by the regulator in its draft decision and final decision respectively.

The ACCC affirms its draft decision to exclude APTPPL's proposed costs for self-insurance of $80 000 unless APTPPL implements effective administrative arrangements in a revised access arrangement in accordance with s. 2.41(b) of the code.

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[292] ACCC, *Draft Greenfields Guideline for natural gas transmission pipelines*, June 2002, pp. 16-17.

Final decision amendment 05

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must either exclude the costs of self-insurance from the non-capital costs or implement the following administrative arrangements for self-insurance:

- a board resolution to self-insure (i.e. a copy of the signed minutes recording the resolution made by the board)
- confirmation that APTPPL is in a position to undertake credibly self-insurance for those events
- self-insurance details setting out the specific risks which APTPPL has resolved to self-insure
- a report from an appropriately qualified actuary or risk specialist verifying the calculation of risks and corresponding insurance premiums
- ensuring that the cost of self-insurance is recorded as an operating expense in the audited and published income statement, and thereby deducted from the calculation of attributable profits
- ensuring that a self-insurance reserve (funded by self-insurance premiums charged in the income statement) is established in the audited and published balance sheet
- ensuring that when a claim against self-insurance is made, that an appropriate deduction to the self-insurance reserve is recorded.

Conclusion

The ACCC has decided not to approve the non-capital costs proposed by APTPPL as they are not considered to comply with s. 8.37 of the code. The non-capital costs approved by the ACCC in this final decision are shown in Table 2.6.7.3 (self-insurance costs have been omitted). These costs are considered to be the costs that would be incurred by a prudent service provider, acting in accordance with s. 8.37 of the code and which represent best estimates arrived at on a reasonable basis (s. 8.2(e)) and comply with the s. 8.1 objectives.

Table 2.6.7.3: Non-capital costs approved by the ACCC

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
Total non-capital costs	8.31	8.27	8.24	8.19	8.14

2.7 Forecast volumes

2.7.1 Code requirements

Section 8.2(e) of the code requires that any forecasts required in setting the reference tariff represent best estimates arrived at on a reasonable basis.

2.7.2 Current access arrangement provisions

There are currently no forecast volumes in the access arrangement as the tariffs were set by the Queensland Minister and included in the access arrangement through the derogation.

2.7.3 APTPPL proposal

APTPPL has proposed two volumes forecasts. The forecast used directly for the reference tariff calculation[293] excludes extensions and expansions. The forecast used as input to determining the NPV DORC includes expansions. APTPPL has advised it is currently in discussions with several parties concerning the possible expansion of the pipeline, but that the scope and timing are not finalised.

This section covers both the reference tariff forecast and the longer term forecast used for the initial capital base. APTPPL has advised there is little scope for additional gas to be carried by the pipeline without substantial capital expenditure. APTPPL also advised that shippers are required to deliver gas that complies with AS 4564 to customers.

Reference tariff volume forecasts

Table 2.7.3.1 shows APTPPL's forecast throughput and peak day capacity volumes over the proposed access arrangement period. The access arrangement period projection is based on the pipeline as configured at 31 January 2006, and forms the basis of the offered services.

Table 2.7.3.1: Access arrangement period forecast volumes

Volumes	2006-07	2007-08	2008-09	2009-10	2010-11
MDQ (TJ/ day)	196.2	199.1	199.8	200.5	202.9
Throughput (PJ/pa)	56.5	57.3	57.5	57.7	58.4

Source APTPPL, 'Access arrangement information', p. 23.

The pipeline has a nominal capacity of 180 TJ/day. APTPPL advised that the forecast volumes are able to exceed the nominal capacity as load is withdrawn from the mainline upstream of capacity constraints and slightly downstream of a major receipt point.

The MDQ and throughput increase over the access arrangement period reflecting existing contracts. For the revenue model, the capacity and throughput beyond 2011 have been kept constant at the 2011 levels.

[293] The reference tariff is calculated by dividing the forecast total revenue by the forecast total demand.

NPV DORC volume forecasts

The longer term projections covering the period 2006 to 2025 can be seen in figure 2.7.5.2. The NPV DORC forecast is not constrained to the existing capacity of the pipeline, and includes expansions. APTPPL stated that it considers it reasonable to assume projects, such as those currently under discussion or similar, will be developed over the forecast period, and that it has confidence that CSM projects will assist in meeting future demand.

APTPPL noted that the methodology used to derive the forecast volumes involved in-house forecasts using known data, public sources of information and some key strategic assumptions.

In developing its forecasts, APTPPL reflected the following[294]

- contracted loads
- organic growth in the retail gas market
- no growth in the large industrial market, and
- step change growth in the power generation market.

The forecasts were prepared in July 2005 and were reviewed, at APTPPL's request, by consulting company ACIL Tasman Pty Ltd (ACIL Tasman).[295] ACIL Tasman noted that its report focuses on the annual gas throughputs associated with supply of gas loads, rather than on the pipeline capacity required.[296]

ACIL Tasman noted the APA[297] forecasts are based on the following strategic assumptions:[298]

- no new alternative pipelines directly supply the Brisbane market (that is, no bypass)
- any gas supply to south east Queensland from the proposed Papua New Guinea (PNG) pipeline will flow through the RBP and replace gas from current sources
- sufficient gas exists to meet demand
- the RBP capacity is expanded to meet new loads in a timely manner, and
- the RBP is not extended to any new geographical markets.

ACIL Tasman supports the forecast of demand for gas growing in the distribution market, but made different assumptions for the industrial and generation segments. The key difference between the APTPPL and ACIL Tasman forecasts for power generation

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294 APTPPL, *Access Arrangement for Roma to Brisbane pipeline Further Information* provided to ACCC 21 February 2006, section 8, volumes p. 9.

295 ACIL Tasman, 'Market Outlook for the Roma (Wallumbilla) to Brisbane Gas Pipeline', 2 December 2005.

296 ACIL Tasman, 2 December 2005, p. 1.

297 APA is the Stock Exchange code of APT, APTPPL's parent company.

298 ACIL Tasman, 2 December 2005, pp. 2–3.

can be attributed to different assumptions regarding the future fuel choices for new generating plants and the possible location of that plant.

ACIL Tasman assumes the new plant entering service in 2011 will be coal-fired, but acknowledges that the plant could be gas-fired and located where it could be supplied with gas via the RBP. ACIL Tasman also noted this variation is outside the proposed access arrangement period.

In summary, ACIL Tasman concluded:

> On the basis of this analysis we consider the APA forecasts of gas throughput on the RBP to be reasonable. While there are some differences in the assumptions …. we consider the APA positions in relation to these components of the market are within the bounds of reasonable probability.[299]

2.7.4 Submissions in response to the revised access arrangement

Several users commented on aspects relating to forecast volumes.

The QGC noted that there are significant gas fields being developed and proven that could use the RBP and that QGC is but one producer. It noted the declining conventional sources from the Surat Basin were initially supplemented by supplies from the Cooper Basin. Supplies were augmented by CSM from the Fairview field and more recently from Peat and Scotia. From 2007, the South West Queensland gas flows into the RBP will diminish greatly with substitution from Surat Basin CSM sources.[300]

Origin Energy (Origin) considered the forecasts to be highly conservative. Origin stated the forecasts used by CRA International[301] ignore power stations currently under construction and other industrial and commercial proposals.[302]

Energex commented that demand forecasting for the RBP is difficult as high transportation tariffs, lack of access and pipeline capacity constraints have constrained demand and affected project viability. It concluded that the proposed forecast load is conservative, particularly in the area of power generation and that, with reasonable tariffs, the volumes could be significantly higher than at present. Energex also noted the development of CSM industry near the mid-point of the pipeline.[303]

TRUenergy, in commenting on another issue, stated that under Full Retail Contestability (FRC) the competition is between retailers for a customer, but this does not result in incremental load growth.[304]

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299 ACIL Tasman (confidential version), 2 December 2005, p. V, Executive summary.

300 QGC, 'submission' p. 8.

301 CRA International (CRA) prepared the DORC Asset Valuation report for APTPPL. The CRA report used the forecast volumes provided by APTPPL.

302 Origin, 'submission', p. 5.

303 Energex, 'submission', p. 8.

304 TRUenergy, *Response to the Issue Paper, 18 May 2006*, p 1 cited as'submission'.

2.7.5 Draft decision

In its draft decision, as required by s. 8.2(e) of the code, the ACCC reviewed the gas forecasts submitted by APTPPL to establish whether the forecasts represented best estimates arrived at on a reasonable basis.

In carrying out this review, the ACCC took into account an independent forecast prepared for it by McLennan Magasanik Associates Pty Ltd (MMA) prior to receiving the access arrangement and MMA's subsequent review of APTPPL's forecasts and the assessment of those forecasts provided by APTPPL's consultant, ACIL Tasman.

Since its inception, the capacity of the pipeline has increased substantially, particularly in recent times. The capacity roughly doubled between 1982 and 1998 and again since 1998. The current configuration is considered by APTPPL to be able to deliver 202.9 TJ/day. The ACCC noted that this growth has typically been underpinned by contractual negotiations and long term contracts. In addition, the ACCC noted, that based on the existing configuration, at least an extra 6.7 TJ/day[305] of capacity is available depending upon load locations and profile.

Reference tariff volume forecasts

In considering the methodology and assumptions in the APTPPL forecasts, the ACCC compared the results with its own independently commissioned study[306] and the subsequent review of APTPPL and ACIL Tasman forecasts.[307] For the revenue forecast model, there are no significant discrepancies in volume forecasts.[308] This is illustrated in draft decision figure 2.7.5.1 below. User feedback indicated that demand existed for extra capacity if it was available. User submissions indicated that effective demand may be higher than current volumes, that capacity may be the current limiting factor, despite expansions being available by negotiation. This is consistent with MMA's conclusions regarding the constrained nature of the pipeline that:

> On the basis of the above comparisons MMA considers the APTPPL constrained throughput and capacity forecasts to 2011 to be reasonable.[309]

The ACCC noted that under the price path approach, APTPPL would achieve a better (worse) than benchmark rate of return if demand is greater (less) than forecast during the access arrangement period. As volumes are under contract, the ACCC anticipates little downside risk for APTPPL that the forecast volumes will not be achieved. In its constrained forecast (which reflects MMA's understanding of existing capacity), MMA noted the difficulty in forecasting the capacity of the pipeline. The constrained MMA

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305 This amount is derived from the difference between MDQ in 2006-07 and 2010-11. This is assumed to be uncontracted capacity.

306 MMA, *Roma-Brisbane Pipeline Throughput and Capacity Requirement Forecasts*, 7 February 2006.

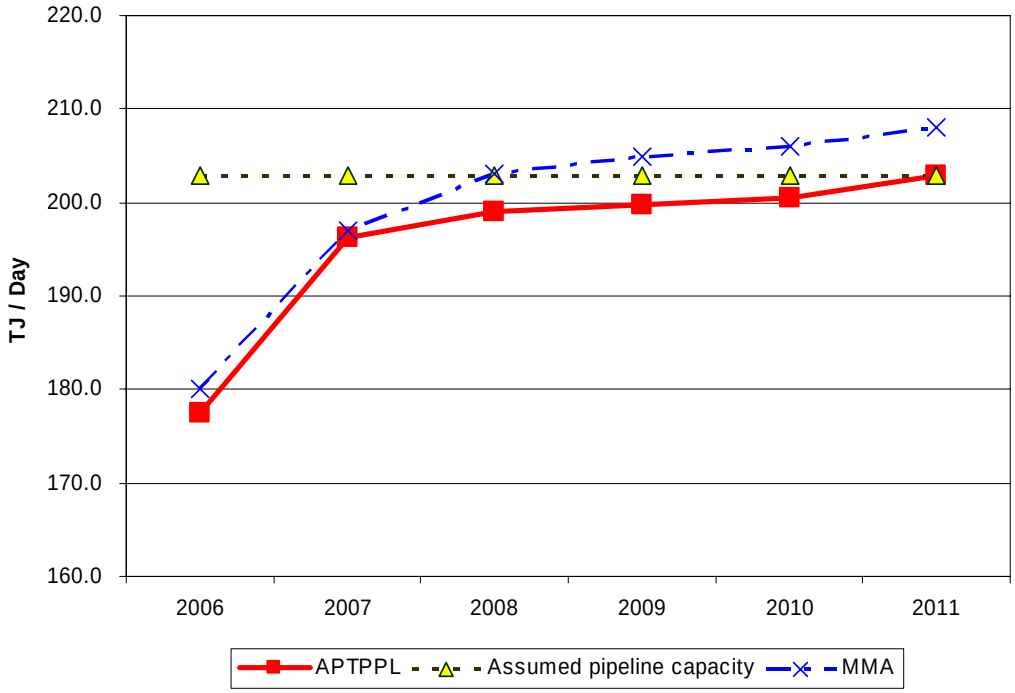
307 MMA, *Roma-Brisbane Throughput Forecasts Comparisons of APTPPL, ACIL Tasman and MMA Forecasts*, 26 June 2006.

308 Both consultants MMA and ACIL Tasman expressed difficultly in forecasting the capacity required for the pipeline due to the unknowns such as load factors, co-incident peaks, profiles and operating requirements. ACIL Tasman's forecasts only reflected total throughput in PJ as a result.

309 MMA, 26 June 2006 p. vii.

forecast also suggests that the risk is more upside than downside. Improved trading arrangements may result in additional volumes being shipped using the existing capacity. To the extent that APTPPL may achieve higher than benchmark revenue, it has an incentive to better utilise the existing capacity of the pipeline.

Draft decision figure 2.7.5.1: Volumes for revenue forecast model



Source: MMA, 26 June 2006, Figure E-3 p. vii.

Note ACIL Tasman did not provide a comparable TJ/day forecast.

Accordingly, the ACCC accepted APTPPL's reference tariff volume forecasts, based on contracted capacity and the pipeline being effectively fully contracted, as reasonable.

Initial capital base volume forecasts

In assessing the longer term forecasts, the ACCC looked beyond the current contracts. This included assessing APTPPL's strategic assumptions outlined above. The longer term volume forecasts drive the expected capacity[310] of the pipeline and future expansions.

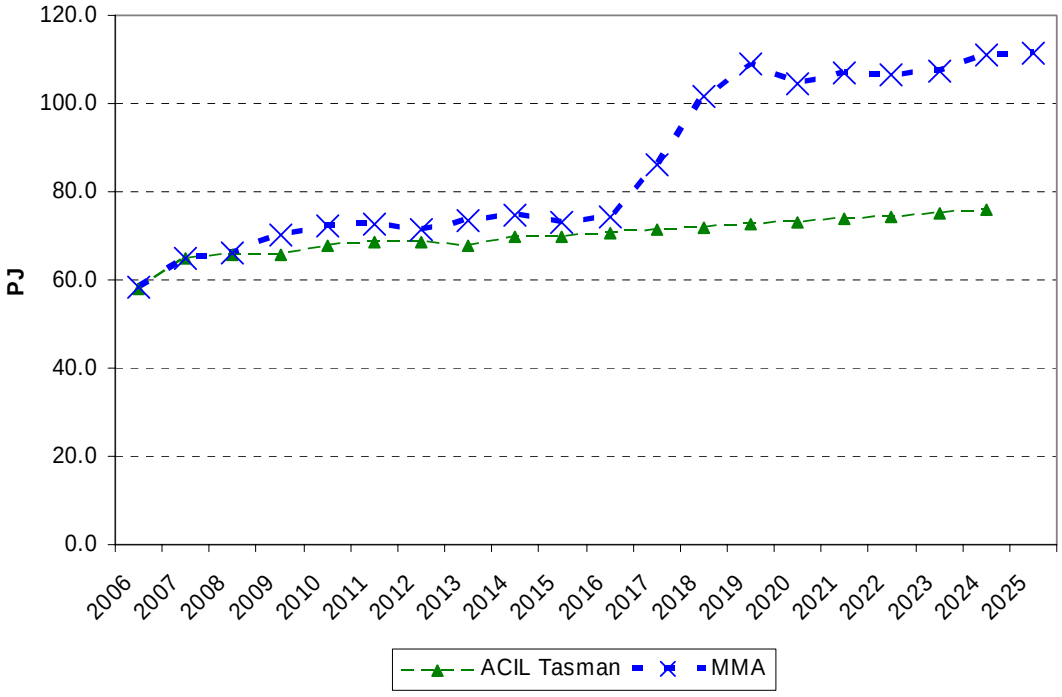
In assessing the first three of APTPPL's strategic assumptions (no bypass of the RBP; PNG gas will flow via the RBP; and sufficient gas reserves), the ACCC noted users'

[310] Both consultants MMA and ACIL Tasman expressed difficultly in forecasting the capacity required for the pipeline due to the unknowns such as load factors, co-incident peaks, profiles and operating requirements. ACIL Tasman's forecasts only reflected total throughput in PJ as a result.

comments about declining traditional sources of gas being replaced with CSM. This was supported by submissions such as from QGC who refer to significant potential CSM reserves. Additionally, MMA noted that contracted gas available to major buyers each year exceeds forecast usage[311] and there are significant gas reserves.[312] This significant availability of gas reserves does not include the proposed PNG Pipeline. APTPPL has assumed that the PNG Pipeline, if it proceeds, will supply gas to Brisbane via the RBP. Accordingly, the ACCC concluded that there was likely to be a sufficient supply of gas for the life of the pipeline.

A summary of forecasts used in the determination of the initial capital base is shown in figure 2.7.5.2. The APTPPL forecast was provided but is not shown for confidentiality reasons.

Draft decision figure 2.7.5.2: Unconstrained throughput forecasts (PJ)



Source: MMA, 26 June 2006 Figure E-1 p. iv.

Note annual consumption used to enable comparable forecast comparison with ACIL Tasman's PJ forecasts only.

In assessing the timely need to expand capacity, the ACCC also took into account the major end user groups: distribution load; large users; and power generation.

311 MMA, 26 June 2006—see chapter 4.

312 MMA, 7 February 2006—refer section 5.3.3.

Distribution load

APTPPL used public forecasts for its profile of the distribution load. The forecasts used were not based on the latest public data available prior to the submission date but this is considered a timing issue, as APTPPL needed to provide forecasts as input to engineering work for the NPV of costs DORC and other aspects of the access arrangement. MMA also provided an assessment of the public forecasts, with explanations for its proposed variations, in its report which was also submitted prior to the submission date. APTPPL's use of public information is accepted as reasonable. Full retail contestability for gas has been announced, but is not expected to increase the volume. Since APTPPL submitted its proposed access arrangement revisions, the Queensland Minister for Energy has asked the Energy Competition Committee to investigate duplication of the metropolitan section of the pipeline as part of its role in implementing full retail competition.[313] Any augmentation of the metropolitan section may increase volumes but any such work has not been announced and has not been reflected in the volume forecasts.

Large users

The ACCC considered APTPPL provided a conservative forecast for major users. There are differences in key assumptions. The ACCC accepted APTPPL's forecast as reasonable but conservative.

Power generation

The major difference between the forecasters was in electricity generation largely reflecting different views on how the Queensland Government policy requiring that 13 per cent of electricity be generated from gas is met over time.[314] The NEMMCO forecasts identify the need for additional generation to meet the growth in south-east Queensland, but do not specify location or the fuel source required. As power stations are typically long term assets (20 to 40+ years), any users that source gas from the RBP are likely to be long term users.

APTPPL assumes one of the electricity generation plants required will be gas-fired and connected to the RBP. ACIL Tasman assumes that the generation required will come from a mix of coal-fired and gas-fired plant. ACIL Tasman assumes that a gas-fired new entrant will not be a base load plant, but a peaking plant which has a low capacity factor. MMA assumes growth of RBP sourced generation will rise substantially from 2018, reflecting an assumption that growth of generation is concentrated in that period because earlier gas-fired generators in the RBP corridor are expected to obtain supply directly from CSM producers (and so, bypass the RBP).

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313 Minister for Energy and Aboriginal and Torres Strait Islander Policy, The Hon. John Mickel, MP, 14/07/2006, 'Minister announces moves to foster gas competition'.

314 Minister for Energy and Aboriginal and Torres Strait Islander Policy, The Hon. John Mickel, MP, Queensland Energy Forum, 5 April 2006. Novotel Brisbane speech noted the Queensland 13 per cent gas scheme was a major plank of the May 2000 Queensland energy policy. The 13 per cent scheme requires liable parties to source 13 per cent of the electricity they sell in Queensland from gas-fired generation.

In assessing these forecasts, the ACCC noted the uncertainty regarding the size, timing, location and fuel source for likely increases in electricity generation. This uncertainty has increased since the forecasts were submitted following the Queensland Government announcement of a restructuring of its electricity assets and sale of the retailers. Given the circumstances, the ACCC accepted APTPPL's generation forecasts as being reasonable, while noting the significant variations in forecasts around 2011 and 2018 in particular.

The ACCC accepted the volume forecasts for determining an optimal replacement pipeline as reasonable.

ACCC conclusions

APTPPL's reference tariff forecasts reflect the strong expected demand for the capacity of the pipeline in the short to medium term, coupled with the proposal that the reference tariff only apply to existing capacity. In that context the ACCC considered the forecasts were reasonable.

APTPPL's volume forecasts for the replacement pipeline, and independent forecasts for the ACCC by MMA, suggest the pipeline is required to deliver around 88 PJ pa in 2017. The ACCC noted these forecasts exceed the ACIL Tasman forecasts, but accepted them as reasonable for input into designing the optimal replacement pipeline used as part of the NPV of costs DORC calculation.

The ACCC also noted the increasing complexity in developing a single volume forecast for the RBP with increasing numbers of gas suppliers injecting at locations other than Wallumbilla and users receiving gas at locations west of Brisbane.

The ACCC accepted the reference tariff and initial capital base volumes forecasts provided by APTPPL as being consistent with code requirements.

2.7.6 Submissions in response to the draft decision

No submissions were received on this issue.

2.7.7 Final decision

No new evidence has been raised on this issue. The ACCC accepts the reference tariff and initial capital base volumes forecasts provided by APTPPL as being consistent with code requirements.

2.8 Incentive mechanisms

2.8.1 Code requirements

The code's general tariff principles provide that, where appropriate, the reference tariff should be designed to provide the service provider with the ability to earn greater profits (or less profits) than anticipated between reviews if it outperforms (or underperforms) against the benchmarks that were adopted in setting the reference tariff.

The intention is that, to the extent possible, service providers be given a market-based incentive to improve efficiency and to promote efficient growth of the gas market (an incentive mechanism).

More specifically, s. 8.1(f) of the code refers to an incentive 'to reduce costs and to develop the market for reference and other services'. Section 8.2(d) allows an incentive mechanism to be incorporated into the reference tariff policy that the regulator is satisfied is appropriate and consistent with the objectives in s. 8 of the code. Section 8.4 allows the service provider to retain, some or all of the benefits arising from efficiency gains under an incentive mechanism.

Section 8.44 provides that the reference tariff policy should, wherever the regulator considers it appropriate, contain an incentive mechanism that provides the service provider with an opportunity to retain a share of returns arising from the sale of the reference service. This should particularly be the case where the additional returns can be attributed, at least in part, to the actions of the service provider.

In accordance with s. 8.45 an incentive mechanism may include (but is not limited to) the following:

(a) specifying the reference tariff that will apply during each year of the access arrangement period based on forecasts of all relevant variables

(b) specifying a target for revenue from the sale of all services and that a certain proportion of any revenue received in excess of that target be retained by the service provider and that the remainder must be used to reduce the tariffs for all services or to provide a rebate to users

(c) a rebate mechanism for rebatable services that provides for less than a full rebate of revenues from the rebatable services to the users of the reference service.

Section 8.46 sets out the following objectives for an incentive mechanism:

(a) To provide the service provider with an incentive to increase the volume of sales of all services, but to avoid providing an artificial incentive to favour the sale of one service over another

(b) To provide the service provider with an incentive to minimise the overall costs attributable to providing those services, consistent with the safe and reliable provision of such services

(c) To provide the service provider with an incentive to develop new services in response to the needs of the market for services

(d) To provide the service provider with an incentive to undertake only prudent New facilities Investment and to incur only prudent Non Capital Costs, and for this incentive to be taken into account when determining the prudence of New Facilities Investment and non-capital costs for the purposes of ss. 8.16(a) and 8.37

(e) To ensure that users and prospective users gain from increased efficiency, innovation and volume of sales (but not necessarily in the access arrangement period during which such increased efficiency, innovation or volume of sales occur).

2.8.2 Current access arrangement provisions

The access arrangement does not currently include an explicit incentive mechanism.

2.8.3 APTPPL proposal

As permitted by the code in s. 8.3(b), APTPPL has proposed a price path approach under which the reference tariff is determined for the whole access arrangement period to follow a path forecast to deliver the total revenue. The reference tariff will be adjusted to reflect actual movements in the CPI.[315] However, it will not be adjusted if actuals (for example volumes) deviate from forecasts.

APTPPL has proposed an incentive mechanism that allows it to retain any improved returns if it outperforms its forecasts. Under APTPPL's proposal it would retain all of the additional revenue generated when the quantity of gas it contracts to transport during the access arrangement period exceeds the forecast quantities assumed in the calculation of the reference tariff. APTPPL's proposed incentive mechanism also provides it with an incentive to minimise the costs of providing services as it will retain any additional net revenue from outperforming its forecasts.[316]

2.8.4 Submissions in response to the revised access arrangement

Energex stated that it supports transparent incentive mechanisms that encourage the pipeline owner to increase efficiencies and reward any increased service. However, it expressed concern that the revised access arrangement, although affording the opportunity for APTPPL to reduce costs, is focussed on current contracted capacity. Energex advocated inclusion of any future expansions within the access arrangement to increase the transparency of the incentive mechanisms.

2.8.5 Draft decision

The ACCC proposed to accept the price path methodology APTPPL proposed for the reference service. It was considered that APTPPL's approach to retain the additional revenue if it outperforms its forecasts provided it with appropriate incentives to operate efficiently and to develop the market for the services of the RBP.

The code states that an incentive mechanism may provide for some of the revenue from rebatable services to be returned to users. Issues concerning APTPPL's proposal that the reference service only be available for existing capacity and that any additional services be provided on a negotiated basis were addressed in the draft decision.[317] In short, the ACCC considered a range of options (including provision of rebatable services) but concluded that APTPPL's proposal of limiting the reference service to the existing capacity of the pipeline was appropriate given the current state of development of the RBP.

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315 APTPPL has used a real approach to the derivation of total revenue as allowed by s. 8.5A of the code.

316 The scope for APTPPL to achieve cost savings is limited by its contractual arrangements with Agility, under which Agility receives set fees for the provision of certain services.

317 See pp. 118-120 and pp. 152-153

Under the proposed approach, the reference tariff applying over the forthcoming access arrangement period was determined to recover all costs associated with providing services using the existing capacity. Any revenue from additional services such as backhaul, interruptible and park and loan will be in addition to the revenue earned for providing the reference service. APTPPL has proposed that it be able to retain all this additional revenue. The ACCC acknowledged that this mechanism would provide APTPPL with a strong incentive to develop and supply the additional services and that this would benefit APT, users and prospective users.

In summary, the ACCC considered that APTPPL's proposed access arrangement should contain an incentive mechanism (s. 8.44). Further, it concluded that APTPPL's access arrangement as proposed provide it with incentives to increase throughput and to decrease costs, and that the incentive mechanisms were consistent with code requirements.

2.8.6 Submissions in response to the draft decision

No submissions were received on this issue.

2.8.7 Final decision

As noted above, there has been no further discussion on this issue subsequent to the draft decision. The ACCC remains of the view that the incentive mechanisms in the proposed access arrangement are consistent with code requirements.

2.9 Cost allocation and tariff setting

This section addresses cost allocation and the tariff structure. The setting of the initial tariff is undertaken in conjunction with the tariff path assessment in section 2.10 and the two sections should be considered together.

2.9.1 Code requirements

Section 8.38 of the code requires that, to the maximum extent that is commercially and technically reasonable, the reference tariff should recover costs directly attributable to the reference service and a fair and reasonable share of costs incurred jointly with other services. Section 8.42 of the code also requires that the recovery of a particular user's share of costs follows these principles. These requirements must be met, regardless of the methodology used to calculate total revenue.

2.9.2 Current access arrangement provisions

Cost allocation and tariff setting principles are not currently included in the access arrangement. Tariffs applicable are shown in table 2.9.2.1. A surcharge was applicable for capacity from 78.9TJ/day to 101TJ/day. Tariffs above that level were negotiable up to the then nominal capacity of 178TJ/day.

Table 2.9.2.1: RBP reference tariffs 1 July 2002 (0-78.9TJ/day)[318]

	$ / GJ
Capacity reservation charge	$0.2582
Throughput rate	$0.1482
Surcharge: Load Factor (LF) < 1.6	$0.3984
Surcharge: 1.6 <=LF<=2.0	$0.4647
Surcharge: > 2.0	$0.5087

MMA commented on this pricing as follow:

> 'this tariff structure results in a considerable variance in charges between users of different capacity, from a low of approximately $0.43/GJ in 2005 terms for a 100% LF user, to $0.86/GJ with the surcharge for an equivalent user. It is understood that negotiated tariffs for firm service have been similar to the surcharge level.'[319]

2.9.3 APTPPL proposal

APTPPL proposed a reference tariff and tariff path that is intended to align the reference tariff in 2011 with the average contract tariff at that time. APTPPL proposed an NPV approach to determining its total revenue (as permitted by s. 8.4 of the code) such that costs and revenues are matched over the life of the assets but not in a particular year. The tariff path is discussed in section 2.10.

The proposed reference tariff is for a single reference service of firm forward haul between all receipt and delivery points for the existing capacity of the pipeline as at 31 January 2006 (i.e. one zone). For capacity beyond that, APTPPL proposed a negotiated tariff. The reference tariff is structured to recover fixed costs through a capacity charge and variable costs by a throughput charge.

The split of 95 per cent capacity and 5 per cent throughput is appropriate according to APTPPL as the high capacity charge reflects the fixed pipeline capacity required and it is similar to the 96:4 per cent split for the MSP.

APTPPL supported the use of a single zone (or 'postage stamp') pricing as a way to avoid the opportunity cost of one shipper shipping gas a short distance and preventing another shipper from shipping gas a long distance.

The proposed reference tariff, shown below in table 2.9.3.1, consists of the sum of the capacity charge and the throughput charge. The capacity charge is based on the GJ of maximum daily quantity (MDQ), while the throughput charge is based on the volume transported.

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318 MMA, 7 February 2006, Table 2-1, p. 17.

319 MMA, 7 February 2006, pp. 16-17.

Table 2.9.3.1: APTPPL proposed reference tariff

Tariff Component	1/7/06 – 30/6/07	1/7/07 – 30/6/08	1/7/08 – 30/6/09	1/7/09 – 30/6/10	1/7/10 – 30/6/11
	$ (July 2006)				
Capacity reference tariff ($/GJ of MDQ/day)	0.4243	0.4243	0.4243	0.4243	0.4243
Throughput reference tariff ($/GJ)	0.0283	0.0283	0.0283	0.0283	0.0283

Source: APTPPL, 'Access arrangement', 31 January 2006, p. 11.

Users will also pay other applicable tariff charges (i.e. overrun, imbalance and daily variance charges) and other charges in respect of receipt and delivery stations.

2.9.4 Submissions in response to the revised access arrangement

QGC sought the provision of gas transmission services at a 'competitive cost-reflective price'.[320]

QGC was critical of the Peat / Scotia Lateral being included in a single tariff zone, whilst Energex welcomed its inclusion as it facilitates sourcing cheaper CSM. Origin sought separate tariffs to facilitate backhaul.

Origin and Energex both argued for a zonal tariff for Brisbane. Origin, noting that new gas sources (e.g. CSM in locations east of Wallumbilla) will increase in importance and also the westward industrial expansion of Brisbane, suggested that many future users may not wish to transport gas for the full length of the pipeline.

Recognising that looping of the Brisbane metropolitan section of the pipeline will become necessary as load growth in Brisbane and the Gold Coast continues, Origin considered that users with loads west of Brisbane should not have to pay for the Brisbane area looping. Energex also considered that a zonal tariff would better reflect future demand.

QGC also argued that zonal pricing would provide more accurate cost reflective services by segregating market-wide costs and benefits from capital investments that are of benefit to particular market segments.

2.9.5 Draft decision

The ACCC considered the issues under the following criteria: reasonableness of the tariff level; cost reflective pricing; cost allocation; tariff structure; and postage stamp pricing.

Reasonableness of the tariff level

320 QGC, 'submission', p. 1.

The code requires that to the maximum extent reasonably possible, reference tariff should recover costs directly attributable to a service and a share of joint costs. The ACCC noted that all the costs incurred in providing services using the existing capacity are assumed to be attributable to the reference service, as only one reference service is proposed. To the extent that APTPPL will derive additional revenue from providing additional services (such as backhaul), the ACCC considered that this will provide suitable incentives for APTPPL to develop the market for these services.

The ACCC did not accept the reasonableness of the proposed tariff level. This was discussed in 2.10 of the draft decision.

Cost reflective pricing

As APTPPL has proposed a NPV methodology for determining it benchmark revenue, the revenues should be cost reflective over the life of the assets rather than over a particular access arrangement period. For this pipeline, the major costs are the fixed costs of the assets to provide capacity. Minimal additional costs are required for throughput, and these are primarily for compressor fuel. The fixed costs are allocated to the users via the capacity tariff, reflecting their peak maximum daily requirements. This also transfers the capacity risk to users. The throughput charges reflect actual usage, regardless of the peak usage which drives the capacity requirement. The throughput risk to the service provider is thus low.

Not all the proposed charges are cost reflective. The ACCC noted the significant increases in the level of overrun and similar charges, even if the relative percentages have been maintained i.e. 120 per cent for authorised capacity and 300 per cent for unauthorised capacity. The ACCC accepted APTPPL's argument that these charges are designed to encourage good operating practices and noted the flexibility, for example, in overruns[321] designed to assist users to minimise the number of times these charges are incurred.

Cost allocation

The ACCC noted the allocation of all pipeline costs to the reference service. As noted above, this approach provides APTPPL with a strong incentive to promote additional services.

Tariff structure

The ACCC accepted APTPPL's contention that the proposed 95:5 split between the capacity reservation charge and the throughput tariff approximates the split between fixed and variable costs for this pipeline. Essentially all costs except for compressor fuel and a minor element of compressor maintenance may be regarded as fixed. Compressor fuel costs comprised 4 per cent of revenue in 2004–05.

Postage stamp pricing

Historically most of the gas transported along the RBP entered the pipeline at Wallumbilla and a very high portion was delivered to points in or near Brisbane. Since 2002–03, an increasing proportion of gas has been transported along the Peat/Scotia

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[321] For example, see Access arrangement, 31 January 2006, clause 2.3.4.

Lateral. In the future, the emergence of new sources of gas (such as CSM typically to the east of Wallumbilla) and the construction of more gas-fired power stations near the western end of the pipeline may mean that this situation changes. MMA estimates that the average haulage distance on the pipeline has been reduced from around 418 km in 2000/01 to 379 km in 2004–05 and this is forecast to fall to around 300 km in 2014 and to stay about that distance until 2025.[322] The fact that most gas has been transported the full length of the pipeline has supported a volume based tariff which did not take account of the distance gas is transported.

In some circumstances multi-zone or distance based pricing can be more efficient in terms of improving decision making in relation to pipeline augmentations, locating new industrial demand and supporting gas powered generation along the pipeline.

The ACCC considered the case for making the Peat/Scotia lateral and Wallumbilla/ Condamine separate zones for pricing purposes. This would have involved establishing a distance-based tariff that reflects the actual cost of the Peat/Scotia lateral and the replacement cost of the older sections of pipeline between Wallumbilla and Condamine. However, the ACCC could see little merit in this approach as these segments of the pipeline are broadly similar in length, and the methodology would entail additional complexity and potential difficulties in determining the replacement cost of older sections.

Where a pipeline is operating at or near full capacity changing the pricing structure to provide an incentive for the provision of short haul gas could reduce the capacity to deliver gas to other points along the pipeline and may not result in any increase in the utilisation of the pipeline. In such a situation a distance based tariff would result in higher charges for some users and lower charges for others.

Where users have made decisions to locate based on a single tariff any shift to a location based tariff could have adverse consequences for their viability.

Going forward there is an arguable case that users with loads west of Brisbane should not have to pay for any looping in the Brisbane area and that a zone based tariff might be appropriate. In the meantime any industrial user or power generator wishing to consume gas west of Brisbane could seek to negotiate a separate tariff.

Taking all factors into consideration, including the need to send appropriate pricing signals and the objective of facilitating short term capacity trading, the ACCC accepted APTPPL's postage stamp pricing arrangement during the forthcoming access arrangement period while foreshadowing the possibility of a move towards distance-based pricing.

2.9.6 Submissions in response to the draft decision

No submissions were received on this issue.

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322 MMA, 7 February 2006, p. 48. Note this excludes the Peat Lateral and uses MMA assumptions about the power stations being located in the upper end of the pipeline, an assumption not shared by all.

2.9.7 Final decision

No new evidence has been raised on this issue. The ACCC accepts APTPPL's postage stamp pricing arrangement for the forthcoming access arrangement period while foreshadowing the possibility of a move towards distance-based pricing in future access arrangement periods.

2.10 Forecast revenue and tariff path

This section discusses the forecast revenue, tariff path and the initial tariff level. The rationale for setting the tariff structure is provided in 2.9, which should be read in conjunction with this section.

2.10.1 Code requirements

Section 8.3 of the code allows options as to the manner in which the reference tariff may vary in an access arrangement period. The choice is within the discretion of the service provider, but is subject to s. 8.3A of the code and the regulator being satisfied that the tariff variation methodology is consistent with s. 8.1. Section 8.1 of the code sets out the objectives that the reference tariff and reference tariff policy should be designed to meet. Sections 8.3A – 8.3H of the code establish the manner in which a reference tariff may be varied within an access arrangement period.

Section 8.4 of the code allows the total revenue to be calculated by either the Cost of Service, IRR or NPV methodology.

Section 8.34 of the code (which applies where the NPV or IRR approach is used) requires the depreciation schedule to be designed in a manner consistent with the efficient growth of the market.

2.10.2 Current access arrangement provisions

Under the derogation, the tariff arrangements for the RBP to 28 July 2006 were covered by the access principles approved by the Queensland Minister for Mines and Energy in accordance with amendments to the *Petroleum Act 1923* which came into effect on 1 July 1995. Tariffs increase quarterly by 75 per cent of the increase in the CPI.

2.10.3 APTPPL proposal

APTPPL's proposed revisions to the access arrangement use the NPV methodology to establish the total revenue for the RBP over the remaining life of the pipeline. The NPV methodology requires a tariff path that provides for the recovery of the costs of supplying services over the life of the pipeline. The depreciation profile is the device used to achieve the required tariff path having regard to the building blocks (that is, the return on and of capital and non-capital costs) and forecast volumes.

The revenue requirement utilizing the NPV methodology has been calculated using:

- an ICB of $342.6m (as at October 2005) plus minor capital expenditure
- a pre-tax real rate of return of 6.9 per cent

- economic depreciation calculated as the residual amount once operating costs and the return on assets is deducted from total revenue, and
- forecast non-capital costs comprising APT corporate costs and the operations and maintenance costs consistent with the asset management contract with Agility.

APTPPL proposed that the reference tariff for the access arrangement period be set so that the average tariff level approximates the forecast average tariff for current contracted users in 2011.[323] APTPPL stated that this will minimise any price shock that may occur as contracts expire post 2011.

The proposed revised access arrangement also establishes that the reference tariff is to be varied annually using a CPI-X formula. In the forthcoming access arrangement period (expected to be five years) the X value would equal zero, implying a constant real tariff. Going forward, the NPV methodology implies that the reference tariff would increase post July 2011 in real terms by 0.8227 per cent per annum. The tariff path proposed has negative economic depreciation until 2017.

APTPPL has proposed a starting tariff as shown in table 2.10.3.1.

Table 2.10.3.1: APTPPL proposed reference tariff (excluding GST)

Tariff Component	2006-07	2007-08	2008-09	2009-10	2010-11
	$ (July 2006)				
Capacity reference tariff ($/GJ of MDQ/day)	0.4243	0.4243	0.4243	0.4243	0.4243
Throughput reference tariff ($/GJ)	0.0283	0.0283	0.0283	0.0283	0.0283

Source: APTPPL, 'Access arrangement', 31 January 2006, p.11.

APTPPL's forecast revenues for the access arrangement period are shown in table 2.10.3.2 below. The proposed reference tariff seeks to recover revenue of $32m in 2006–07 increasing to $33.1m in 2010–11 (in July 2006 dollars). APTPPL's actual revenues in the access arrangement period, however, are determined by existing haulage contracts which apply to the pipeline's current capacity for the entire period. Also, under APTPPL's proposed approach, revenue from additional backhaul, interruptible, park and loan services and other charges (overrun, imbalance, daily variance and change of receipt/delivery point) are not included in recoverable revenues.

[323] APTPPL, Further information, 21 February 2006, p. 10.

Table 2.10.3.2: APTPPL total forecast revenue (July 2006 $M)

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
Return on capital	23.7	24.1	24.3	24.5	24.7
Non-capital costs	9.3	9.3	9.2	9.2	9.2
Depreciation	-1.0	-0.9	-0.9	-1.0	-0.7
Total revenue	***32.0***	***32.5***	***32.6***	***32.7***	***33.1***

Source: APTPPL, 'Access arrangement information', table 11, pp. 21-22.

The increase in revenue beyond 2006–07 reflects the increase in forecast MDQ and throughput as shown in table 2.10.3.3 below. Beyond 2011, the MDQ and throughput remain constant.

Table 2.10.3.3: Forecast volumes for the pipeline as configured 31 January 2006

Volumes	2006-07	2007-08	2008-09	2009-10	2010-11
MDQ (TJ/ day)	196.2	199.1	199.8	200.5	202.9
RBP forecast throughput (PJ/pa)	56.5	57.3	57.5	57.7	58.4

Source: APTPPL, 'Access arrangement information', table 13, p. 23.

2.10.4 Submissions in response to the revised access arrangement

QGC stated that it sought a sub CPI glide path to be consistent with other access arrangements and the requirements for demonstrated economic efficiency. QGC also noted that a 75 per cent CPI tariff adjustment had been a feature of the RBP's access agreement since commissioning.[324]

QGC also stated:

> Charges that are penalties and not reflective of the actual costs incurred by the pipeline owner should not be a feature of an access arrangement. As a minimum, those income streams should be considered in the revenue determination for reference services or returned to the "compliant" users by way of a rebateable service.[325]

Origin noted the CPI adjustment increased from 75 per cent to 100 per cent, but that APTPPL had provided little detail of any change in the cost structure. Origin urged the ACCC to closely examine whether such an increase was warranted.[326]

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324 QGC, 'submission', p. 5.

325 QGC, 'submission', p. 11.

326 Origin, 'submission', 19 May 2006, p. 4.

Energex expressed surprise at the reference tariff price path being escalated annually by CPI and queried the basis for having no significant real tariff reductions over the period of the access arrangement.[327]

2.10.5 Draft decision

The ACCC noted in the draft decision that APTPPL had proposed a reference tariff and a tariff path that is intended to align the reference tariff in 2011 with the average contract tariff at that time and recover its proposed costs over the life of the pipeline (using the NPV methodology permitted by s. 8.4 of the code). Under APTPPL's proposal the regulatory asset base would be higher in July 2011 than at its starting point in July 2006. In addition, the reference tariff would need to increase in real terms beyond 2011 to recover allowable or forecast costs.

The ACCC also noted that the code requires that the manner in which the reference tariff will vary within the access arrangement period is consistent with s. 8.1.[328] Further, s. 8.34(d) states that, where the NPV approach is adopted, the reference tariff should change over the access arrangement period in a manner that is consistent with the efficient growth of the market.

The ACCC considered that, in the light of APTPPL's volume forecasts - essentially flat after 2011 - and the constrained capacity of the pipeline, the tariff path and depreciation schedule proposed by APTPPL are not consistent with s. 8.34(d) of the code.

In addition, the ACCC considered that in a competitive market, tariffs would not be expected to increase in real terms in the face of constant volume forecasts and improving productivity (s. 8.1(b)). The prospect of increasing real tariffs could have the effect of discouraging (and thereby distorting) investment decisions in upstream or downstream industries (s. 8.1(d)). Both of these factors suggest that the proposed tariff path is not an efficient structure for the reference tariff (s. 8.1(f)). Accordingly, the ACCC did not accept the depreciation schedule and tariff path proposed by APTPPL.

In considering a tariff path that would be consistent with the code requirements, the ACCC noted that the NPV methodology provides flexibility in the starting tariff and tariff path. However, the range of permissible starting tariff and tariff paths is limited by ss. 8.1 and 8.34.

In other sections of the draft decision the ACCC proposed changes to the ICB, WACC and non-capital costs. Applying these proposed amendments reduced the total revenue requirement of the pipeline. In determining a reference tariff and tariff path consistent with the pipeline's total revenue requirement set in accordance with these amendments the ACCC considered a number of possible tariff and tariff paths. Three possible options are shown in draft decision table 2.10.5.1 below. Option 1 has the highest starting tariff, and greatest reduction over time. Option 3 is the base case, that is, it is a tariff which would recover the total revenue of the pipeline while being held constant in

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327 Energex, 'submission', 18 May 2006, p. 8.

328 ACCC v Australian Competition Tribunal [2006] FCAFA 83, paragraph [59].

real terms. Option 2 is an approximate mid-point starting tariff. Each of these options provides the same forecast revenue over time in NPV terms.

Draft decision table 2.10.5.1: Indicative summary of tariff changes proposed (based on ACCC's variables)

Option	Starting tariff[a] (reduction from proposed tariff as a %)	X factor – 2007 to 2011	Tariff 2011[a] (nominal)	Asset Base in 2011 (next AA)	X factor– 2011 to 2063
	$/GJ	%	$/GJ	$m (2006)	%
1. APTPPL tariff	0.4243 (0)	1.60	0.4548	220	1.60
2. Mid tariff	0.3819 (10)	0.87	0.4215	232	0.87
3. Flat tariff	0.3325 (22)	0	0.3801	247	0

a Only capacity charge shown. Capacity and throughput charges are adjusted by the same percentage.

Summary of options considered

While the ACCC did not accept APTPPL's proposed tariff path, this did not mean that the starting tariff of $0.4243/GJ must necessarily be rejected. However, setting the starting tariff at this level would have required the tariff to decline annually by 1.60 per cent in real terms in order to recover the allowed total revenue.

While each of the tariff options would have provided the same total revenue over the life of the pipeline in present value terms, option 3 required a tariff which was less than the ACCC's best estimate of the cost of possible incremental expansions of the pipeline in the period to 2011.[329] In view of the likely price shock effect and potential for the tariff to be less than the incremental expansion cost of the pipeline this tariff was assessed as not meeting the s. 8.1(b) requirements of the code in that it is not consistent with the outcome of a competitive market.

The ACCC considered that, for the operating environment of the RBP, the tariff profile that would best meet ss. 8.1(b), 8.1(d), 8.1(e) and 8.1(f) is one where the path of the tariff falls (in real terms) over time; depreciation is positive; starts at a suitable level which supports an appropriate tariff path; and is based on the forecast costs and reflects the volume forecasts.

The ACCC considered that the most appropriate tariff path involved a starting tariff less than that proposed by APTPPL, reflecting the ACCC's assessment of the pipeline's total revenue requirement. It considered a tariff that does not result in a significant price shock would best reflect the code requirements noted above. Accordingly, a starting tariff of $0.3819/GJ of MDQ/ day, throughput reference tariff of $0.0255/GJ and an X of 0.87 was proposed in the draft decision.

329 For example using the data in the CRA International Roma-Brisbane Pipeline: DORC Asset Valuation February 2006 and data covering cost of prior expansions.

The revenues associated with the tariff and tariff path of the draft decision were set out in draft decision table 2.10.5.2 below.

Draft decision table 2.10.5.2: Mid range estimate total forecast revenue

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
Return on capital	13.6	13.6	13.4	13.1	13.0
Non-capital costs	8.1	8.1	8.0	8.0	8.0
Tax	0.5	0.5	0.6	0.6	0.7
Depreciation	5.6	5.9	5.9	6.0	6.3
Total revenue	***27.8***	***28.0***	***27.9***	***27.7***	***27.8***

Notes: Totals may not match due to rounding.

The ACCC adjusted APTPPL's financial model to conform to a post tax approach, which adjusts asset values for tax effects.

For the access arrangement to be accepted, the ACCC stated that it requires the following amendment.

Draft decision amendment 08

Before APTPPL's revised access arrangement can be approved, the reference tariff must be amended to the starting tariff of

- Capacity Reference Tariff = 0.3819 ($/GJ of MDQ / day)
- Throughput Reference Tariff = 0.0255 ($/GJ)

and thereafter increased annually by CPI-X where X = 0.87

2.10.6 Submissions in response to the draft decision

APTPPL did not accept the tariff and tariff path themselves, to the extent that they are driven by other amendments in the draft decision. APTPPL did not object to the form of tariff.[330]

APTPPL stated that it did not agree with the draft decision's position that back-ended depreciation is inappropriate for the RBP stating that back-ended depreciation is reasonable given the ICB and operating expenditures proposed by APTPPL.[331]

330 APTPPL, 'Response to the Draft Decision', p. 38.

331 APTPPL, 'Response to the Draft Decision', p. 25.

APTPPL noted that the ACCC revenue model does not include a return on capital in the year that capital expenditure is incurred. It claims that it would be reasonable to assume the expenditure occurred mid year.[332]

2.10.7 Final decision

As noted by APTPPL, the level of the starting tariff and its subsequent movements are consequent to the overall benchmark revenue over time. The tariff path must be considered in this context.

The ACCC recognises that back-ended depreciation is generally a feature of the NPV approach to the calculation of total revenue and agrees with APTPPL that s. 8.4 of the code allows the NPV approach. In fact, the tariff path proposed by the ACCC in the draft decision produces a back-ended depreciation schedule (though less back-ended than APTPPL's proposal).

In its draft decision, the ACCC took into consideration s. 8.34(d) of the code which states that the reference tariff should change over the access arrangement period in a manner that is consistent with the efficient growth of the market for services. It also states that this may involve a substantial portion of the depreciation taking place towards the end of the access arrangement period, particularly where the calculation of the reference tariff has assumed significant market growth and the pipeline has been sized accordingly.

While this provision only refers to the change in the reference tariff and depreciation over the forthcoming access arrangement period, the ACCC considers that the approach is also relevant in principle to potential changes in the reference tariff over the longer term.

The ACCC considers that APTPPL's proposed tariff path would be consistent with a market that is predicted to grow over time but not with APTPPL's volume forecasts - essentially flat after 2011 - and the constrained capacity of the pipeline which are features consistent with a mature market.[333] It therefore concludes that the tariff path proposed by APTPPL, which would be constant in real terms over the access arrangement period and then increase in real terms, is not consistent with efficient growth of the market for services and not consistent with s. 8.34(d) of the code.

For this reason, and as the manner in which the tariffs are proposed to vary is not consistent with 8.1 of the code (for the reasons given in the draft decision) the ACCC remains of the view that, in light of the pipeline capacity used for determining the reference tariff, a real tariff that remains constant in the short term and then increases is inappropriate.

In addition to these considerations of principle, the ACCC took into account the level of the benchmark revenue determined in the draft decision. This differed sufficiently from that proposed by APTPPL to require a substantially different approach to the

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332 APTPPL, 'Response to the Draft Decision', p. 38.

333 The ACCC has accepted the volume forecasts (see section 2.7) and the proposal that the reference tariff only apply to the pipeline's current capacity.

starting tariff and/or its change over time. The ACCC concluded that a tariff that commences ten per cent lower than the level proposed by APTPPL and then decreases slightly in real terms was appropriate (compared to one increasing over time as proposed by APTPPL).[334] The ACCC notes that APTPPL said that it did not object to this form of tariff.

The ACCC considers that the differences between the amendments required in this final decision, compared to those foreshadowed in the draft decision, have a small enough impact on the RBP's revenue requirements that the initial tariff reduction of 10 per cent proposed in the draft decision continues to meet the requirements of the code for the reasons set out in the draft decision.

The revenues associated with the proposed tariff and tariff path are set out in table 2.10.5.2. Benchmark revenues in 2006–07 are $4.1m less than those proposed by APTPPL for that year. The reduction in revenue reflects a lower return on capital and the positive return of capital associated with the revised tariff path.

Table 2.10.5.2: Forecast total revenue[a]

	2006-07	2007-08	2008-09	2009-10	2010-11
	$m (July 2006)				
Return on capital	13.7	13.6	13.4	13.2	13.0
Non-capital costs	8.3	8.3	8.2	8.2	8.1
Tax	0.5	0.5	0.6	0.6	0.7
Depreciation	5.4	5.6	5.7	5.8	6.1
Total revenue	***27.9***	***28.1***	***28.0***	***27.9***	***28.0***

a Totals may not match due to rounding.

For the access arrangement to be accepted, the ACCC requires the following amendment. This amendment will affect both the table in section 3.1 of the proposed access arrangement and the formula in section 4.4.

Final decision amendment 06

Before APTPPL's revised access arrangement can be approved, the reference tariff must be amended to the starting tariff of

- Capacity Reference Tariff = 0.3819 ($/GJ of MDQ / day)
- Throughput Reference Tariff = 0.0255 ($/GJ)

and thereafter increased annually by CPI-X where X = 0.79

334 RBP Draft decision, p. 98f.

The proposed access arrangement states (in section 4.1(c))

> The Capital Base at the commencement of the subsequent Access Arrangement Period will be determined by application of the NPV methodology adjusted to account for Depreciation, Redundant Capital and inflation as measured by the annual CPI[335]

The ACCC considers that this does not reflect the requirements of the code. Where the NPV methodology has been used to calculate total revenues, s. 8.9 of the code states that the capital base at the commencement of the next access arrangement period will be the residual value assumed in the previous access arrangement period (subject to sections 8.16(b) and 8.20 to 8.22) less redundant capital with an appropriate adjustment for inflation.

The ACCC notes that the revenue model which produced the revenues in Table 2.10.5.2 produces a residual value at 30 June 2011 of $233.79m (in July 2006 dollars). This is the Residual Value assumed for the 2006–07 to 2010–11 access arrangement period which, for the purposes of s. 8.9 of the code, will be the basis for the calculation of the capital base for the access arrangement period commencing in 2010–11.

The reference tariffs proposed in this final decision have been based (in part) on forecast new facilities investment (as proposed by APTPPL and allowed under section 8.20 of the code). Sections 8.16(b) and 8.22 allow this to be taken into account when new facilities investment is determined for the purposes of calculating the capital base at the commencement of an access arrangement period. While an adjustment for new facilities investment could be taken to be included in 'application of the NPV methodology', the ACCC considers it should be explicitly included to reflect the code requirements.

There is no provision in the code for an adjustment to the residual value with respect to depreciation. The ACCC considers this is appropriate. The residual value already reflects the depreciation which is included in the total revenue for the access arrangement period (which has determined the reference tariffs proposed by the ACCC). For the residual value to then be adjusted up (or down) on the basis of depreciation (or some aspect of depreciation) would result in the service provider being able to recover through depreciation more (less) than the capital base of the asset. The recovery by depreciation of more than the asset's capital base would be contrary to ss. 8.34(c) and 8.33(d) of the code. The recovery of less than the asset's capital base may mean the service provider would not recover the efficient costs of delivering the reference service (s. 8.1(a)). Thus the reference to depreciation needs to be removed from the calculation of the capital base.

Consequently, the ACCC considers that APTPPL's proposed explanation of the calculation of the capital base needs to be amended by deleting the reference to depreciation and including a reference to new facilities investment.

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335 APTPPL, Revised access arrangement, 28 September 2006, p. 15.

Final decision amendment 07

Before APTPPL's revised access arrangement can be approved, the words in section 4.1(c) need to be replaced with:

The Capital Base at the commencement of the subsequent Access Arrangement Period will be the Residual Value of $233.79m (in July 2006 dollars) adjusted to reflect actual rather than forecast new facilities investment, redundant capital and inflation as measured by the annual CPI.

Revenue modelling

APTPPL's revenue model has a 57 year life and includes no capital expenditure for the replacement of assets. This is consistent with its proposal with respect to the DORC modelling that the replacement of assets be assumed after 57 years as 57 years is the average remaining life of the current assets. For the reasons stated above (in section 2.2.7) the ACCC considered this to be an inadequate approach to the DORC modelling. However, for the revenue modelling the ACCC considers that this approximation is unlikely to introduce distortions. Unlike the calculation of the ICB, the revenue model is re-calculated at the beginning of each access arrangement period and can be updated with the latest estimates at that time.

The 57 year period noted above is a weighted average of the remaining lives of the RBP assets. These are calculated from the assumed lives of 80 years for pipelines (except for the original 250mm pipeline which is 60 years) and 35 years for compressors. The original pipeline is considered to have a shorter technical life due to the construction methods at the time of construction. These lives are consistent with accepted industry standards and the ACCC accepts them as appropriate (as it has in previous assessments of proposed access arrangements).

On 18 December 2006 APTPPL wrote to the ACCC on a confidential basis proposing changes to some of the asset lives it had proposed in its original application.[336] Given the late receipt of this submission the ACCC decided it was unable to take this into account before making its final decision.

The ACCC has considered APTPPL's proposal that capital expenditure be recognised mid year. This proposal has intuitive appeal as capital expenditure would be expected to take place on average throughout the year. However, the ACCC's modelling currently includes the simplifying assumption that all costs and revenues occur at the end of the year. Where revenues are greater than costs, this approach errs in favour of the service provider. If net revenues are positive, the earlier they are recognised, the less the service provider will need to be compensated.

Recognising capital expenditure as occurring mid year would appear to be inconsistent with recognising the remainder of costs and revenues later. Nonetheless, the ACCC recognises that there is scope to increase the sophistication of its modelling. It also

[336] APTPPL, Roma Brisbane Pipeline Asset Lives, 18 December 2006.

recognises that the ACCC modelled capital expenditure as occurring mid year in its former role as electricity transmission regulator and that the AER currently uses this approach.

In considering APTPPL's submission, the ACCC is mindful that APTPPL has proposed only minor amounts of 'stay-in-business' capital expenditure, and that adoption of mid year recognition in this instance would have little impact on benchmark revenues. On balance, the ACCC has decided to accept APTPPL's proposal. Separate to the current process, it will explore improvements to its modelling to increase sophistication so as to better align the recognition of costs and revenues.

2.11 Reference tariff variation policy

2.11.1 Code requirements

Section 8.3 of the code states the manner in which a reference tariff may vary within an access arrangement period is within the discretion of the service provider. This is subject to s. 8.3A (reference tariff variation method) and the regulator being satisfied that methodology is consistent with the objectives of s. 8.1 The tariff variation methods open to the service provider are: cost of service; price path; reference tariff control formula; trigger event; or any variation or combination of these.

Further, s. 8.3A states that a reference tariff may vary within an access arrangement period according to the requirements and procedures set out in ss. 8.3B to 8.3H.

2.11.2 Current access arrangement provisions

Under the derogation, tariff arrangements for the RBP to 28 July 2006 were covered by the access principles approved by the Queensland Minister for Mines and Energy in accordance with amendments to the *Petroleum Act 1923* which came into effect on 1 July 1995. Tariffs were adjusted quarterly by 75 per cent of the increase in CPI.

2.11.3 APTPPL proposal

APTPPL elected that the reference tariff will only be adjusted in accordance with the CPI-X formula.[337] The proposed reference tariff only covers the capacity and throughput charges. The tariff is to be adjusted annually from 1 July.

APTPPL has moved from quarterly to annual indexation for this access arrangement period. The proposed indexation formula is shown below, noting CPI_{n-1} means the CPI figure September 2005 for the review on 1 July 2007.

$$RT_n = RT_{n-1} \times \left[1 + \frac{CPI_n - CPI_{n-1}}{CPI_{n-1}}\right]$$

[337] Access arrangement, 4.4 (a), p. 16.

APTPPL has proposed to use another series for indexation if the quarterly CPI is no longer published. APTPPL has proposed that the initial indexation start from the September quarter 2005.

The s. 8.3B to s. 8.3H criteria are addressed. These sections cover the implementation of the approved reference tariff variation method. Clause 4.4(c)(i) for example requires APTPPL to provide a notice to the regulator 30 business days prior to 30 June each year.

APTPPL has not elected to include a trigger event to re-open the access arrangement, but seeks adjustments at the next access arrangement period if demonstrated as appropriate. APTPPL argues the pipeline is fully contracted until 2012 and triggers are normally for longer access arrangement periods.

The proposed access arrangement states (clause 4.4(d)), if the introduction of gas market reforms leads to 'significant' or 'material' impact (detrimental or beneficial), then APTPPL **may** (*emphasis added*) address the financial impact through adjustment to the capital base at the commencement of the next access arrangement period.[338] It further states, in such a case, the service provider must reasonably demonstrate to the regulator the impact of such new requirements.

2.11.4 Submissions in response to the revised access arrangement

Users generally commented on the proposed 100 per cent CPI escalation rate, noting that this represented an increase upon the current 75 per cent escalation.[339]

QGC specifically commented on trigger events suggesting underlying demand should be a consideration.[340]

2.11.5 Draft decision

The ACCC noted that it had addressed the proposal that adjustments to the reference tariff be at 100 per cent of CPI at section 2.10.2 of the draft decision.

Consistent with this approach, the reference tariff variation formula proposed has no reference to the X factor (as X=0 under APTPPL's proposal). While it was clear from clause 4.4(a) of the proposed access arrangement that APTPPL proposed that the tariff be adjusted by a CPI-X mechanism, the ACCC considered that the tariff adjustment formula should be set out in the form of CPI –X. This matter was raised with APTPPL. It agreed that it would attend to this issue when it submitted its amended revised access arrangement.

The initial escalation period was proposed to start from September quarter 2005, with subsequent escalations from the March quarter of 2006. As the initial tariff would be in dollars of July 2006, consequent to the ACCC's proposed changes, there was no longer

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338 Access arrangement, clause 4.4(d).

339 More specific users comments can be found in section 2.10.4.

340 QGC, 'submission', p. 13.

a need to index from September 2005. To address this, the following amendment was required.

Draft decision amendment 09

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend clause 4.4(b) by removing the words in brackets ('except for the purposes of the review on 1 July 2007 when CPI_{n-1} means the CPI published for the September quarter 2005').

APTPPL has proposed to use another indexation if the quarterly CPI is no longer published by the Australian Bureau of Statistics. The APTPPL proposal was to use another index that APTPPL reasonably determines most closely approximates that index. While the ACCC believed the approach was reasonable, cessation of publication of the CPI would have wider implications than just for the RBP access arrangement which would need to be considered prior to implementation of an alternative methodology. The ACCC discussed this with APTPPL. APTPPL agreed to amend the relevant paragraph to reflect agreement as to the replacement index with the regulator.

APTPPL proposed that the reference tariff may be varied each year of the access arrangement period in accordance with ss. 8.3B to 8.3H of the code, subject to giving the regulator notice 30 business days prior to the end of the financial year, and the minimum notice period under s. 8.3D(b)(i) of 20 business days. The current wording of clause 4.4 (c)(i) which appears to require APTPPL to lodge its notification on a specific day ('30 Business Days prior to 30 June each year') appears unnecessarily prescriptive. The ACCC discussed with APTPPL amending the clause to reflect a minimum, rather than fixed period before 30 June. APTPPL agreed to this change.

QGC proposed that there be a trigger event linked to underlying demand to adjust the reference tariff, which APTPPL did not support. The ACCC accepted the volume forecasts (and their basis) for the pipeline (as discussed in section 2.7 of the draft decision) and therefore did not see any benefit in a trigger mechanism linked to demand.

APTPPL proposed in clause 4.4(d) of the access arrangement that financial costs associated with the introduction of full retail contestability would be considered at the next access arrangement review. For these costs to be accepted APTPPL would need to demonstrate that they were directly linked to the implementation of gas market reforms. It is open also to APTPPL to bring forward revisions to the access arrangement under s. 2.28 where it seeks to recover costs associated with FRC in the current access arrangement period. If this were to occur associated revisions to terms and conditions might also be required.

2.11.6 Submissions in response to the draft decision

APTPPL did not object to the proposed amendment. No other submissions on this matter were received.

2.11.7 Final decision

APTPPL has incorporated in its amended revised access arrangement the amendment proposed in the draft decision. Moreover, APTPPL has amended its revised access arrangement to reflect the timing of the lodgement of the yearly tariff notice as proposed in the draft decision.

APTPPL has also made a change to section 4.4 of the access arrangement to reflect the need for agreement with the regulator as to the replacement for the CPI should one be needed.

APTPPL has proposed that the reference tariff may vary using a Reference Tariff Control Formula Approach (as allowed under s. 8.3(c) of the code). APTPPL will need to adjust the tariff adjustment formula to explicitly reflect the 'X' in the formula as the amendment in section 2.10 above establishes a non-zero value for X for the forthcoming access arrangement period.

3. Non-tariff elements

3.1 Introduction

This chapter considers the non-tariff elements of APTPPL's access arrangement. Non-tariff elements, among other things, refer to a policy on the trading of capacity, queuing for spare and developable capacity as well as terms and conditions in regard to arrangements for the allocation of gas between shippers, overrun and balancing charges and gas specification.

The code sets out the minimum elements that must be included in an access arrangement as well as principles for establishing the reference service and the other elements and policies to be set out in the access arrangement. It should be acknowledged however, that service providers and their customers may agree to different or more detailed arrangements in their gas haulage contracts. The ACCC's role is to ensure that proposed terms and conditions of the access arrangement are reasonable and do not prevent the efficient provision of the pipeline's services.

The day to day operation of the pipeline is also subject to technical regulation which ensures the safe operation of the pipeline.

In addition the Queensland government has announced the establishment of a gas retail market operator - VENCorp. While this arrangement is most relevant for the retail and distribution segments of the market the introduction of full retail contestability in the Queensland gas market in 2007 may impact on the terms and conditions on which gas is transported on the RBP (and other pipelines).

The introduction of full retail contestability and other initiatives flowing from the Gas Market Leaders Group (GMLG) may necessitate changes to terms and conditions of supply on the RBP. The code can accommodate such changes as s. 2.28 allows a service provider to submit revisions to its access arrangement at any time. However, some of the issues raised in the current review go beyond the scope of the code and will need to be addressed by policy makers using other legal instruments. For example, effective information sharing may require input from a range of market participants.

The ACCC proposed a number of amendments to the non-tariff elements of the revised access arrangement in its draft decision. All of these are consistent with both the code and the policy reforms under consideration by the GMLG. In its response to the draft decision, APTPPL indicated that it generally did not disagree with the principles behind most of the non-tariff amendments. The remainder of this chapter discusses each non-tariff element of the RBP access arrangement, and any amendments as relevant, in detail.

3.2 Services policy

3.2.1 Code requirements

Under s. 3.2 of the code, the services policy in an access arrangement must comply with the following principles:

> (a) The Access Arrangement must include a description of one or more Services that the Service Provider will make available to Users or Prospective Users, including:
>
> (i) one or more Services that are likely to be sought by a significant part of the market; and
>
> (ii) any Service or Services which in the Relevant Regulator's opinion should be included in the Services Policy.

Under s. 3.3 of the code, an access arrangement must include a reference tariff for:

> (a) at least one Service that is likely to be sought by a significant part of the market; and
>
> (b) each Service that is likely to be sought by a significant part of the market and for which the Relevant Regulator considers a Reference Tariff should be included.

The code defines a reference service as a service specified in an access arrangement and for which a reference tariff has been specified in that access arrangement.

Rebateable services are defined in s. 10.8 of the code as services where:

> (a) there is substantial uncertainty regarding expected future revenue from sales of that Service due to the nature of the Service and/or the market for that Service; and
>
> (b) the nature of the Service and the market for that Service is substantially different to any Reference Service and the market for that Reference Service.

Rebateable services are so named because some or all of the revenue realised from sales of rebateable services is rebated to users of reference services.

Section 8.40 of the code provides that, for rebateable services …

> … the structure of such a rebate mechanism should be determined having regard to the following objectives:
>
> (a) providing the Service Provider with an incentive to promote the efficient use of Capacity, including through the sale of Rebateable Services; and
>
> (b) Users of the Reference Service sharing in the gains from additional sales of Services, including from sales of Rebateable Services.

Costs incurred when providing rebateable services are included in the total revenue calculation. The reference tariff is then calculated by dividing the total revenue by the forecast volume of the reference service. Users of the reference service may be compensated for any additional costs incurred by the service provider in providing the rebateable services (and passed on to users through the reference tariff) through a rebate.

3.2.2 Current access arrangement provisions

Section 1 of the access arrangement currently states that the service provider's services policy for the pipeline consists of a reference service and negotiated services. The reference service for the pipeline is described in the tariff arrangement approved by the Queensland minister (under the derogation). The reference service is offered for capacity up to the first 101 TJ/day of contracted capacity in the pipeline.

A negotiated service is offered for capacity from 101 TJ/day to 178 TJ/day.

3.2.3 APTPPL proposal

In its proposed revised access arrangement, APTPPL included only one reference service—firm forward haul. It has not proposed any non-reference services other than a negotiated service. Users requiring services other than firm forward haul would need to negotiate with the service provider on the tariff and other terms. APTPPL does not propose to take account of the revenues from providing non-reference services when setting the reference tariff.

APTPPL asserted that the only service likely to be sought by a significant part of the market is a firm forward service. It stated that five of the six major shippers on the RBP have firm forward haul and that only a very small quantity of gas hauled in the year to February 2006 was transported on an interruptible basis.

APTPPL also noted that a single reference service has applied under the access arrangement under the previous regulatory regime. Further it states that there is little information that could be used to determine load forecasts and cost allocations. Accordingly, modelling of additional reference services would be problematic.

3.2.4 Submissions in response to the revised access arrangement

The need for additional reference services was addressed in all submissions received from users or prospective users. Energex, Origin, TRUenergy and QGC all considered that a wider range of reference services, as outlined below, should be offered by APTPPL.

Origin

- Firm and as available back haul—producers in the Walloons area of south-west Queensland will increasingly require back haul services to the Wallumbilla hub to supply southern markets (particularly with the decline of Cooper Basin supply). A back haul service would foster growth of new gas production areas in central Queensland in particular, encouraging greater competition with established production fields.
- As available forward haul—producers often need to engage in short-term trades (less than one year) to supply small blocks of gas into the south-east Queensland market.
- Line pack swap service—a line pack swap facility between shippers is required. The costs to the service provider of facilitating such swaps are very small (to the extent that it simply nets out imbalances) yet the cost savings to shippers can be substantial.

In view of the demand for the above services, Origin considers that APTPPL's proposal is overly restrictive in what it intends to provide as reference services.

QGC

- Westward (backhaul)—the provision of a westward flow service can be provided at an administrative cost consistent with the contractual offset of flows. This would allow access to some 120 TJ of capacity to Wallumbilla.
- As available (interruptible) eastward flow—around the existing contracting basis, there is a need for a service to meet intermittent loads such as gas-fired generation and industrial users with either fuel switching capabilities or excess manufacturing capacity that could be selectively operated to build stockpiles of their finished products (for example, brickworks, refineries).
- Capacity trading—the south-eastern Queensland market serviced by the RBP exhibits some unused capacity on a daily and seasonal basis. To enable users to better understand their options in accessing unused capacity (both contracted and uncontracted) the aggregate of nominated delivery quantities should be posted and accessible to users as wells as prospective users before the start of a gas day.
- Imbalance trading—would allow users to amend pipeline nominations within appropriate timeframes.
- Zonal service/pricing—gas consumption growth will be sustainable and competition would increase in a transparent economically efficient manner if the RBP provided zonal services and pricing as reference services. Zonal pricing would provide more accuracy in the provision of cost-reflective services by segregation of market-wide costs and benefits from capital investments that are of benefit to particular market segments.

QGC also stated in its submission that:

> The proposal that all revenue is derived from a reference tariff based only on a forward haul reference service, with theoretical flow from Wallumbilla eastward to Brisbane on a postage stamp basis, significantly understates the RBP's revenue opportunities over the term of the proposed access arrangement … These functions could be incorporated as intrinsic elements of an umbrella reference service in addition to being offered as discrete reference services.[341]

Energex

Energex strongly supported the inclusion of other reference services for the RBP during the next access arrangement period. It acknowledged that to date, the majority of users have sought only one reference service. However, due to the constrained nature of the pipeline it has been difficult for parties to use capacity on the RBP according to commercial needs. Energex suggested that the consideration of previous market conditions is not an appropriate measure to assess future services required. It advocated the following reference services:

- backhaul

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[341] QGC, 'submission', p 8

- interruptible—forward and backhaul
- park and loan
- storage.

Energex recognised the difficulty in forecasting these services and was therefore supportive of having income from these services 'fall outside the revenue calculation' for the access arrangement.

TRUenergy

TRUenergy considered that the access arrangement should support full retail contestability by providing a platform of varied services that would allow both incumbent and new entrant retailers to tailor solutions to meet their needs. TRUenergy suggested that an interruptible service be offered as a reference service at prices set at 130 per cent of the firm service rate.

APTPPL

APTPPL stated that the reference service reflects the requirements of a significant portion of the market. It stated that the only significant service sought on the RBP in previous years of operation was firm forward haul. The needs of users for other services can be negotiated. Backhaul and interruptible services have been and are currently provided on the RBP by negotiation.[342]

3.2.5 Draft decision

In its draft decision, the ACCC noted that the code requires an access arrangement to include a reference service for 'at least one service that is likely to be sought by a significant part of the market; and each service that is likely to be sought by a significant part of the market' for which the regulator considers a reference tariff should be included. The intent of the code is that the cost of providing a reference service should be recovered through the reference tariff.

As indicated in submissions, users and prospective users have sought to have services other than firm forward haul included in the access arrangement as reference services. The first question is whether a significant part of the market is likely to seek services such as interruptible supply, backhaul or other services.

An assessment of APTPPL's haulage contracts indicated that additional services such as backhaul, interruptible and park and loan are already contracted for. With the introduction of full retail contestability and greater use of gas-fired power generation the demand for these services by distributors and retailers is likely to grow. Analysis of supply data indicated that the power generation sector already uses a substantial portion

342 APTPPL, *Roma to Brisbane pipeline access arrangement, APTPPL response to the ACCC issues paper, 4 July 2006*, p. 1.

of average deliveries on the pipeline and this sector is likely to need services other than firm forward haul.[343]

In view of the current demand (and possibly unfulfilled demand) for additional services on the pipeline and expected future developments, APTPPL's contention that additional services are not needed by a significant part of the market was not viewed by the ACCC as a reasonable stance.

The draft decision acknowledged that users have sought to have additional services provided as reference services with established reference tariffs. In its submission, Energex raised the concern that

> … without a guiding access arrangement for the future capacity, and given all services are negotiated services, this leaves a prospective user open to negotiations that are not representative of the fair and reasonable terms principles applied in the Gas Code. Energex … would be reluctant to go through an exhaustive arbitration process where so many uncertainties exist with respect to the arbitrated outcome for service, price and terms and conditions of supply.[344]

The additional services sought (backhaul, interruptible and park and loan) are significantly different to firm forward haul. As a result, establishing the demand for these services is not straightforward. The ability to supply an interruptible service or storage service depends on the availability of the pipeline's capacity after existing contractual commitments have been met.

The basis of TRUenergy's proposal for an interruptible service, with prices set at 130 per cent of the firm haulage rate is not explained. The ACCC's analysis of the US market has indicated that interruptible tariffs in the US are usually less than firm haulage rates. Also, setting an interruptible tariff above the firm haulage tariff when a pipeline is close to full capacity could give the service provider the incentive to provide access to the pipeline on an interruptible rather than on a firm basis. This could have adverse consequences for some users or discourage the timely expansion of the pipeline. Given that an interruptible service offers less certainty than a firm carriage service and the fact that the RBP is close to capacity, the ACCC would normally anticipate the tariff for interruptible haulage to be less than that for firm haulage.

The ACCC noted in its draft decision that backhaul services require matching the needs of counterparties at particular times. In some circumstances additional services can be provided without diminishing the availability of firm forward haul and this makes establishing costs attributable to these services difficult. For these reasons, and because of the difficulty in accurately forecasting costs and the level of demand, the determination of reference tariffs for backhaul services is problematic.

When expected revenues from a service are uncertain or future sales are difficult to predict, the code provides for the provision of rebateable services. Rebateable services and their markets are required by the code to be substantially different to any reference service and their markets.

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343 Roma-Brisbane Pipeline Throughput Forecasts Comparisons of APTPPL, ACIL Tasman and MMA Forecasts 26 June 2006, p. 2.

344 Energex, ' submission', p. 13.

The ACCC considered making backhaul, interruptible and park and loan services rebateable services for the RBP access arrangement. While these services may only constitute a small proportion of the market, there was evidence that demand might be constrained by the prospect of inadequate supply since the pipeline's capacity is close to being fully contracted over the access arrangement period.

In this situation, a requirement for APTPPL to rebate revenues when limited spare capacity is provided as a reference service may act as a disincentive to the provision of the reference service. Moreover, the fact that APTPPL's actual revenues over the access arrangement period will be earned under pre-existing contracts may make the operation of a rebate arrangement difficult.

While there is an arguable case that the additional services sought by users should be provided on a rebateable basis, the ACCC considered that access to these services is likely to be best achieved by determining that services such as backhaul, interruptible supply and park and loan services be provided as negotiable services for the forthcoming access arrangement period. As noted in section 2.8 (incentive mechanisms) of the draft decision, as the reference tariff has been calculated to recover all costs associated with providing services using the existing capacity, any revenue from these negotiated services will be in addition to the total revenue (s. 8.4 of the code). This provides APTPPL with a strong incentive to develop and market these services.

The draft decision noted that the code provides that where prospective users are unable to agree to terms with a service provider on the supply of services they are able to invoke the dispute resolution provisions of s. 6 of the code. In circumstances where it is technically feasible to supply the services the arbitrator could establish a tariff by applying the provisions in s. 6.15 of the code.

3.2.6 Submissions in response to the draft decision

APTPPL

APTPPL noted that there were no amendments required in relation to services policy. Backhaul, interruptible and storage services are currently offered and used as negotiable services. APTPPL intends to continue to offer these services as a negotiated service.[345]

APTPPL stated that it agreed with the conclusion in the draft decision that it is not necessary or appropriate to require additional services to be offered as reference services. It notes that while the draft decision refers to assertions by a number of users and prospective users that other services (such as backhaul) are required by a significant part of the market, it considers that there is little objective evidence of this. Further, the fact that such services may be able to be provided at this time does not mean that there is demand for those services. APTPPL also stated that the queue for capacity, and the requests for service which have been submitted, demonstrate that there is not an unsatisfied, or significant, demand for alternative services.

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345 APTPPL 'Response to the Draft Decision', p 39.

APTPPL commented that in offering negotiated services APTPPL considers issues such as:

- existing industry pricing benchmarks that relate backhaul to forward haul prices
- existing industry pricing benchmarks that relate interruptible to firm prices
- capital costs of expansion or bypass, if they are relevant (for example bypass may be relevant for backhaul or expansion may be relevant for storage).

For example, it would typically expect to price backhaul services at 50 per cent of the firm forward haul tariff, consistent with industry practice.

3.2.7 Final decision

APTPPL has stated that it agrees with the ACCC's conclusion in the draft decision that it is not necessary or appropriate to require additional services to be offered as reference services. However, the draft decision did not contain this conclusion. The ACCC restates its position that access to additional services is likely to be best achieved by determining that services such as backhaul, interruptible supply and park and loan services be provided as negotiable services for the forthcoming access arrangement period.

The ACCC understands APTPPL's general statement that because additional services may be able to be provided at this time does not mean that there is, or will be, demand for these services. However, the fact that backhaul interruptible and park and loan are already contracted for indicates there is currently demand for these services.

APTPPL has stated that the queue for capacity demonstrates that there is not an unsatisfied or significant demand for alternative services. The ACCC notes that the queue is formed when there is insufficient capacity to satisfy the demand for service.

Information on the current queue for capacity provided to the ACCC indicates that there is unsatisfied demand for capacity.[346] However, the ACCC notes that the queuing policy does not preclude additional services to the reference service being part of a request for service.

The ACCC has decided to accept APTPPL's proposed services policy. It notes that where prospective users are unable to agree on terms with a service provider for the supply of negotiated services they are able to invoke the dispute resolution provisions of chapter 6 of the code.

3.3 Terms and conditions

3.3.1 Code requirements

Section 3.6 of the code requires an access arrangement to include the terms and conditions on which a service provider will supply each reference service. These terms

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346 APTPPL emails to ACCC dated, 8 and 9 May 2006.

and conditions must, in the regulator's opinion, be reasonable. In assessing whether the proposed revised terms and conditions are reasonable, the regulator is guided by s. 2.24 of the code.

3.3.2 Current access arrangement provisions

Section 2 of the RBP access arrangement currently states that the service provider will provide services on the terms and conditions set out in an access agreement with the user. The terms and conditions of access agreements are to be consistent with the access arrangement, including the tariff arrangement. The service provider undertakes not to discriminate between prospective users in the provision of services on the basis of:

- past transactions or relationships with the service provider
- the identity of the prospective user
- the fact that the prospective user is a related party of the service provider.

3.3.3 APTPPL proposal

APTPPL has advised that it would like the terms and conditions applicable to the RBP to be consistent with other pipelines owned by its parent company APT, while making some allowances for the specific characteristics and existing contracts of the RBP.

Obligation to transport

On any day/hour, subject to the user delivering gas at the receipt point at a pressure in accordance with the terms and conditions principles, APTPPL will be obliged to:

- receive into the pipeline at the receipt point a quantity of gas up to the MDQ/MHQ, and
- deliver at the delivery point a thermally equivalent quantity of gas not exceeding the MDQ/MHQ

This gas will be net of system use gas and the user's share of users' linepack, and subject to any interruptions or curtailments, priority provisions, adjustments and the balancing provisions.

Title to and responsibility for gas

The user will warrant that it has title to gas delivered at the receipt point. APTPPL is entitled to commingle gas received from a user with gas that is received into the pipeline from other users.

APTPPL will be responsible for any gas lost from the pipeline due to its negligence or wilful default.

MDQ and MHQ

At the start of the transportation agreement the user must establish for each contract year a receipt point MDQ, a receipt point MHQ, a delivery point MDQ and a delivery point MHQ that fairly reflect the user's expected requirements at each receipt point and

delivery point. The sum of the delivery point MDQs and the receipt point MDQs must be the same.

On any day, APTPPL will receive at a receipt point quantities of gas up to the receipt point MDQ and will deliver at a delivery point a thermally equivalent quantity of gas up to the MDQ for that delivery point. In any hour, APTPPL will receive at a receipt point and will deliver at a delivery point, a thermally equivalent quantity of gas up to the MHQ for that receipt point and delivery point.

Adjustment in MDQ for gross heating value

When APTPPL is reasonably of the opinion, because of a reduction below 40 MJ/m^3 in the average gross heating value of the gas, that the aggregate quantities of gas to be delivered on behalf of all users may exceed the capacity of the pipeline, APTPPL has proposed formulae for adjusting its obligations for the MDQ and throughput charge.

Daily variance

A daily variance occurs when the quantity of gas:

- received from or on behalf of the user at a receipt point during a day is different from the nomination for that receipt point, or
- delivered to or for the account of the user at a delivery point during a day is different from the nomination for that delivery point by more than 10 per cent (either positive or negative) of the MDQ for the receipt point or the delivery point respectively (excluding any portion of that variation that has been caused by APTPPL).

APTPPL may require the user to pay a daily variance charge.

Gas pressure

APTPPL has specified the following minimum pressures for its receipt points on the RBP:

- 10 200 kPag at the Scotia and Peat receipt points
- 9 600 kPag at all other receipt points.

Nominations

The user must provide a nomination for each month at least three business days before the first day of the month and may vary the nomination for any particular day by giving reasonable notice (but not later than 24 hours before the start of the particular day).

Overruns

Overruns may be authorised or unauthorised. A user may request an authorised overrun by giving at least one day's notice to APTPPL. The user is required to pay charges for overruns.

If in any contract year:

- the user has more than 12 overruns that are more than 5 per cent above the MDQ for that contract year, and

- the user is not able to demonstrate to APTPPL's reasonable satisfaction that the user will not again exceed the MDQ by more than 5 per cent during the remainder of that contract year

then APTPPL may determine that the MDQ under the transportation agreement for the remainder of that contract year will be equal to the average of the 12 highest daily withdrawals made by the user during that contract year—and the charges payable by the user will be adjusted accordingly.

System use gas and linepack

Users are required to provide system use gas at their own cost. APTPPL will advise on the monthly supply of such gas, which will be based on the proportion of throughput attributable to the particular user.

APTPPL is responsible for providing a share of linepack. Users are each to be responsible for a portion of the remaining linepack, based on their MDQ.

Metering and records

Withdrawals of gas at delivery points will be metered. If metering equipment fails to operate, the quantity of gas withdrawn will be determined by agreement between the user and APTPPL.

Users are allowed to inspect and audit metering equipment. A user may appoint an independent auditor to inspect and audit records used in determining amounts payable by the user at least once annually and within 12 months of termination of a transportation agreement.

The quantity of gas delivered at a delivery point on any day will be the product of the volume of gas delivered and the average heating value of gas delivered as declared or measured for the pipeline on that day.

Gas quality

Users are obliged to provide gas at receipt points that complies with the gas quality specification. APTPPL is responsible for delivering gas that complies with the specification. APTPPL may refuse to accept gas that does not meet the specification.

Interruptions and curtailments

APTPPL will give users reasonable notice of any planned work. After consulting with users who may be affected, it will make reasonable efforts to carry out that work with as minimal disruption to services as possible.

When services are to be curtailed, they will be curtailed or interrupted downstream of the location of the affected part of the pipeline; and curtailed or interrupted proportionately according to the user's nominations for the first day and user's MDQ thereafter, or as otherwise agreed with all users.

APTPPL states that it will not be liable for any losses, liabilities or expenses incurred by the user and/or the user's customers arising from interruptions and curtailments, when it acts in accordance with the principles of the access arrangement in good faith.

Force majeure

If there is a charge based on an MDQ, and APTPPL is unable to perform its obligations under the transportation agreement, due to an event of force majeure affecting APTPPL, the following will apply. The charge for each day during the period APTPPL is unable to so perform its obligations will be based on the highest quantity of gas (up to the applicable MDQ) available to be continuously withdrawn during that period rather than that MDQ.

Force majeure provisions do not apply to a party's failure to pay money, or a user failing to ensure that gas delivered to a receipt point meets the specifications.

Allocation

When gas is delivered to a receipt or delivery point for more than one user, those users must establish an allocation method and notification processes reasonably acceptable to the service provider. They must also provide sufficient information to APTPPL to enable it to reconcile between users the quantities of gas received and delivered. If no such method or processes are established, APTPPL will adopt a reasonable method such as a pro-rata based on nominations.

Liabilities and indemnities

Each party will be required to indemnify the other for any loss arising out of its gross negligence or wilful misconduct.

Scheduling priority

If, for any reason permitted under this access arrangement, there is not sufficient capacity to transport all the quantities of gas nominated by all users on the day that the quantities are to be transported by APTPPL, then APTPPL must schedule the quantities nominated by users in the following priority and sequence.

1. Quantities nominated by users under firm transportation agreements, not to exceed their respective MDQs.
2. Quantities nominated by users with firm transportation agreements in excess of their respective MDQs pursuant to authorised overrun facilities.
3. Quantities nominated by users under interruptible transportation agreements, first on the basis of highest rate paid, second on a first-come, first-served basis and third on a pro-rata basis.

Gas balancing

Each user will be responsible to control and, if necessary, adjust the nomination, receipts and deliveries of gas to maintain a balance between the user's receipts (net of system use gas and line pack gas) and deliveries.

Based on the best information available, a user and APTPPL are obliged to cooperate in good faith to minimise any imbalance and to eliminate any imbalance that does occur as soon as possible, taking into consideration the reasonable time required by any entities delivering gas to, or receiving gas from, APTPPL.

If there is an imbalance at the end of a month, the user is obliged to correct a continuing imbalance during the subsequent month by making adjustments in nomination, receipts and/or deliveries.

If a user fails to take corrective action, APTPPL may adjust the user's receipts and deliveries contained in the nomination over that subsequent month to correct that continuing imbalance.

If an imbalance still remains at the end of the subsequent month, APTPPL may:

- charge the user an imbalance charge, or
- if there is an imbalance shortfall, require the user to correct any such imbalance through payment of an imbalance charge.

APTPPL has undertaken not to impose charges for a 'minor imbalance' but has not specified any tolerance levels for imbalances.

Connection of facilities to the pipeline and charges for receipt and delivery points

A prospective user may, provided it has the relevant authorisations, and subject to the conditions set out below, construct and operate its own facilities downstream from a delivery station, or upstream from a receipt station, at any agreed location along the pipeline. The user shall arrange for the connection of its facilities to the pipeline on terms acceptable to APTPPL. The user shall pay APTPPL for the cost of the connection work.

APTPPL will only withhold its agreement to a location sought by a prospective user on the basis of technical, operational or safety considerations.

APTPPL will construct the receipt station or delivery station at the user's expense. The construction will be performed to APTPPL's usual standards and requirements including AS2885 or any substituted Australian standard.

APTPPL is also entitled to recover from users operating and maintenance costs for capital improvements for receipt and delivery points; and investigating the cost of constructing the capital improvements of receipt and delivery points.

Gas quality specification

The user must ensure that gas delivered by it or on its behalf at each receipt point complies with:

- the specifications prescribed by any Queensland law, applying during the agreement that extends to any such gas
- if the law does not prescribe a particular matter, or for any period during the transportation agreement in which there is no such law, the specification detailed in the access arrangement, and
- any other specification notified by APTPPL to a user from time to time.

Should there be any inconsistency, the specifications prescribed by any Queensland law prevail over other specifications.

When gas quality is measured upstream of the pipeline, permissible variations outside of the specifications will be determined by APTPPL from time to time, subject to the specifications prescribed by any Queensland law.

Transfer of receipt or delivery points

On request by a user in writing, APTPPL may transfer all or part of a user's MDQ for a receipt point or delivery point to another receipt point or delivery point respectively. APTPPL may only withhold its consent to such a transfer on reasonable commercial or technical grounds and may make its consent subject to conditions if they are reasonable on commercial or technical grounds.

3.3.4 Submissions in response to the revised access arrangement

QGC

MDQ and MHQ

QGC has expressed concern with the wording of clause. 2.3.2(c) of the RBP revised access arrangement. It maintains that the sum of receipt point MDQs and the aggregate MDQ need not be the same. This is because transmission pipeline capacity is the service on offer, not receipt point capacity or delivery point capacity. The receipt point capacity is determined by the gas field operators who cannot oversell capacity and delivery point capacity is determined by the needs of the industrial facility or network being supplied.

Adjustment in MDQ for gross heating value

QGC calls clause 2.3.3 an irrelevant and inaccurate provision. It states the Wobbe index is used to determine the amount of frictional gas losses for different gas types. It claims that the formula proposed could potentially result in a 6 per cent higher tariff for some shippers. It indicates that CSM typically has a lower heating value and a lower relative density, resulting in a Wobbe index equivalent to conventional gas sourced from Ballera.

Overruns and daily variance charges

QGC rejects the need for overrun charges and daily variance charges as outlined in clause 2.3.4 and clause 3.3.3. In reference to daily variance charges, QGC maintains that as long as the aggregate of delivery points and aggregate of receipt volumes are in balance over a period of three days there should be no adverse effect on the operation of the pipeline.

System use gas and linepack

QGC submits that if expansion of a pipeline can be achieved at a lower capital cost through compression rather than looping, the cost of system use gas should be the responsibility of the pipeline owner.

Allocation

Clause 55 of the proposed revised access arrangement states that users must establish allocation methodologies and notification processes reasonably acceptable to APTPPL.

If no such methodologies or processes are established, APTPPL will be entitled to adopt a reasonable methodology such as a pro rata based on nominations.

QGC states that this has been a historical problem as APTPPL has been unwilling to accept the user's requirements. It also states:

> The proposed approach in the access arrangement has been demonstrated to be less than optimal. The correct party to configure an allocation protocol is the operator of the interconnected facility. In the case of a connected network, the operator of a network is legally required under the market business rules to provide a breakdown of quantities received on behalf of each market participant at each network inlet. In the case of an industrial facility or a receipt point, the operators of those facilities are aware of the parties with whom they have contracted and the amounts that have been contracted to have been bought or sold. This provision/process has been a feature of some negotiated contracts and should be a requirement under any access arrangement to accurately reconcile the off-pipeline contracted positions of market participants. All delivery and receipt points have real time data communication with the RBP control centre – these connections can also be used for the timely relay of allocations data by the connected producer, industrial facility or network.[347]

Connection of facilities to the pipeline

QGC expressed concern with schedule 3 as it does not clarify the basis and circumstances in which APTPPL would withhold its agreement to the location of facilities or APTPPL's usual standards.

Gas quality specification

Commenting on schedule 4, QGC states that variations between gas specifications are a recognised disincentive to gas market development. It considers that all users will benefit from the application of the specification established in Australian Standard AS 4564—which was developed by collaboration between industry participants including transmission operators, producers and end users, and further enshrined by law in all eastern Australian gas market jurisdictions. It submits that AS 4564 should be adopted without amendment.

Nominations

QGC submits that the current nominations timetable specified in access agreements is unrealistic and out of step with the needs of the market and physical requirements placed on the pipeline owner to respond to nominations. The Victorian market, which features a large proportion of demand subject to the vagaries of the climatic swings in that region, has been able to function quite reliably with nominations closing immediately before the start of the gas day.

APTPPL

Overruns

In its submission APTPPL addressed two overrun issues: whether APTPPL's request that daily nominations be submitted 24 hours in advance is considered reasonable by users; and the reasonableness of the authorised overrun provision.

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[347] QGC, 'submission', p. 12.

APTPPL states that nominations for firm services are required 24 hours in advance to ensure that compressors are operating at appropriate levels and times to meet demand. It considers that the numerous receipt points and delivery points and load profile requirements of power stations make this a relatively complex task on the RBP and that the use of 24-hour nominations is common in the Australian pipeline industry.

APTPPL states that authorised overrun provisions are reasonable because they are designed to provide it with the ability to control and operate the pipeline and to provide an incentive to shippers to reserve the appropriate amount of capacity for their anticipated requirements.

It suggests that if a shipper requires authorised overruns on a regular basis, it is evident that the shipper has not reserved sufficient firm capacity to meet its needs and should either contract for additional firm capacity or address the issue via some other means such as interruptible contracts.

System use gas and linepack

APTPPL states that RBP linepack is owned by both APTPPL and shippers. The system and ratios by which linepack is owned has been fixed for a long time. It states that it is reflected in current gas transport agreements and that there is no operational reason to change linepack arrangements.

3.3.5 Draft decision

In its draft decision, the ACCC noted that the terms and conditions are principles against which more detailed terms and conditions can be established for individual transportation agreements. After considering submissions from APTPPL and other interested parties, the ACCC proposed a number of amendments which are discussed below.

All of the amendments were proposed to redress concerns about compliance with code principles. In addition, they were considered consistent with the policy developments arising out of the GMLG and the emergence of FRC in the Queensland energy market. The ACCC noted that, if the gas market reforms materially affect the management or operation of the pipeline, it is open to APTPPL to bring forward revisions under s. 2.28 to the terms and conditions.

MDQ and MHQ

Clause 2.2.4(c) of the access arrangement stated that, although the sum of the user's receipt point MDQs or the sum of the user's delivery point MDQs may exceed the user's MDQ, subject to clause 2.2.5, the sum of all deliveries at all of the user's delivery points must not exceed the user's MDQ.

The proposed revised access arrangement went further than this provision and stated that the sum of the delivery point MDQs and the receipt point MDQs must be the same (clause 2.3.2(c)).

The ACCC noted QGC's concern with the wording of clause 2.3.2(c). QGC considers that the sum of MDQs should not be required to be the same. In its discussion of the

issue, QGC referred to the Ballera to Mt Isa Pipeline (Carpentaria Gas Pipeline) in support of this.[348]

The ACCC discussed clause 2.3.2(c) with APTPPL and it was agreed that while daily total receipt MDQ has to match daily total delivery MDQ there should be flexibility in varying individual receipt point MDQ and individual delivery point MDQ.

The ACCC proposed that in the interests of users and prospective users (s. 2.24(f) of the code) the access arrangement be amended. Accordingly, it proposed draft decision amendment 10.

Draft decision amendment 10

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to state that while daily total receipt MDQ has to match daily total delivery MDQ there is flexibility in varying individual receipt point MDQ and individual delivery point MDQ.

Liabilities and indemnities

The liabilities and indemnities provisions were considered consistent with the amendments proposed by ACCC, and accepted by EAPL, in the MSP review process.[349] The ACCC considered that these remain reasonable and therefore that no amendment was required.

Transfer of receipt or delivery points

Section 68(b) of the terms and conditions proposed that a charge is payable by users whether or not the transfer proceeds to completion. The concern is that the clause could be misconstrued to mean that, if the transfer does not go ahead, the user would be obliged to pay the full charge for a transfer instead of just the costs for considering the transfer.

There was also a concern that a reasonable charge was undefined and is a decision for APTPPL. The user and APTPPL must agree on the charge.

Having regard to the interests of users and prospective users (s. 2.24(f)), the ACCC proposed the following draft decision amendment 11.

348 The access arrangement for the Carpentaria Gas Pipeline September 2002 (p. 28) acknowledges that the sum of the receipt point MDQs or delivery point MDQs may exceed the user's MDQ.

349 MSP Final decision (p. 262) and Final approval (p. 63).

Draft decision amendment 11

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend s. 68(b) to read the 'User agreeing to pay a reasonable charge (determined by APTPPL and the User) for the cost of transfer of the capacity. If the transfer does not proceed to completion, the User will only be liable for the legal and other costs associated with consideration of the request to transfer up until the time the user notifies APTPPL that it has decided not to proceed.'

Allocation

This clause is consistent with the current wording of the access arrangement. However, the QGC submission suggested that APTPPL has not been willing to accept user requirements.

APTPPL has indicated that it usually only requires information on: nominations, meter readings, the identity of the shippers using the receipt or delivery points and the details of the tranche or pro-rata methodology used.[350]

However, because APTPPL has not specified these information requirements in the proposed revised access arrangement, the interests of users and prospective users are not adequately protected. The ACCC proposed that APTPPL make an amendment stating that a user's allocation methodology must include the above information. Accordingly, it proposed draft decision amendment 12.

Draft decision amendment 12

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend clauses 55 and 56 so that it states a users' allocation must include the following information:

- nominations
- meter readings
- identity of shippers using the receipt or delivery points
- a clear description of the tranche or pro rata methodology used.

Adjustment in MDQ for gross heating value

The capacity of a pipeline is determined by the number of gas molecules able to pass through the pipeline (that is, volumetric throughput). The product of the heating value per unit volume and the volumetric throughput determines the energy throughput (TJ/day). APTPPL has specified adjustment formulae to apply on any day when it is reasonably of the opinion that, because of a reduction below 40 MJ/m^3 in the average gross heating value of the gas presented by a user at any receipt point, the aggregate quantity of gas to be delivered on behalf of all users may exceed the capacity of the pipeline. In these circumstances the throughput charge is also adjusted by the formula specified in clause 2.3.3 of the access arrangement.

[350] APTPPL email to ACCC, 4 July 2006.

QGC questioned the need for an adjustment of MDQ by the service provider based on a reduction of gross heating value. It claimed that it does not make allowance for the effect on energy flow of a possible lower relative density which tends to partially offset the lower heating value effect which may result in a 6 per cent increase in tariffs for some CSM shippers.

In response, APTPPL stated that it needs certainty in the heating value of the gas to design and operate the RBP. Historically it has been based on 40 MJ/m^3—if the heating value falls then the shipper's MDQ could also fall. APTPPL has advised that it is willing to consider alternatives to address this issue but notes that it is shippers who supply the lower heating value gas.[351]

The ACCC accepted the principle of adjusting for heating value in the circumstances outlined in the proposed revised access arrangement. It recognises that the formulae proposed by APTPPL implicitly make some compensation for the relative density effect. However, the ACCC proposed that a possible solution to accommodate the concerns of QGC would be to revise the formulae to make adjustment directly proportional to the average heating value but also proportional to the inverse of the square root of the relative density. This would make explicit provision for variation in relative density, consistent with s. 2.24(d) and (f) of the code which relate to the economically efficient use of the pipeline and the interests of users and prospective users respectively. Accordingly, it proposed draft decision amendment 13.

Draft decision amendment 13

For APTPPL's proposed revised access arrangement for the RBP to be approved, APTPPL must amend the formulae specified in clause 2.3.3 to:

(a) APTPPL's obligation = MDQ * (AHV2/AHV1) * √(RD1/RD2)

(b) Adjusted throughput charge = throughput charge * (AHV1/AHV2) * √(RD2/RD1)

where

AV1 = heating value of the reference gas e.g. average for the year 2005

AV2 = average heating value of gas received on the day

RD1 = relative density of the reference gas e.g. average for the year 2005

RD2 = average relative density of gas received on the day.

Gas quality specification

The ACCC has not conducted a full technical review of the gas quality specification. However, it noted that the Queensland gas quality specification modifies the Australian Standard AS 4564 to include an additional restriction on carbon dioxide content.

[351] APTPPL, '*RBP access arrangement—APTPPL response to roundtable'*, 24 May 2006, p. 6.

Notwithstanding that APTPPL now states that it considers limits on carbon dioxide to be an important technical requirement,[352] the ACCC understands that AS 4564 has been accepted in all Australian jurisdictions except Queensland.

The Queensland derogation relating to hydrocarbon dewpoint was considered reasonable while the Queensland transmission system is not connected to other state networks.

The hydrocarbon dewpoint limit seeks to avoid hydrocarbon condensation at locations such as meter stations where pressure reduction occurs. Hydrocarbon condensation is less likely in Queensland because of higher ambient temperatures during winter

Scheduling priority

The ACCC has examined the proposed scheduling priority provision and notes that it makes the distinction between a user subject to a firm transportation agreement (firm user) and a user subject to an interruptible transportation agreement.

While this provision does not specifically recognise negotiated services, it should be noted that negotiated services may be either firm or interruptible. There should therefore be no reason for a firm negotiated service to automatically receive a lower priority than the firm forward haul reference service.

The relative priorities of the services would have to be determined case by case given the specific economic, commercial and technical differences between the services. Establishing priorities on this basis will address the legitimate business interests of APTPPL (pursuant to s. 2.2.4(a) of the code) and those of users and prospective users (s. 2.24(f)) adequately.

Elsewhere in the proposed revised access arrangement APTPPL stated that it will act in a non-discriminatory manner in providing services. It ascribed a meaning to non-discriminatory that APTPPL will act in a manner that is consistent for each service offered and between each service offered, subject to differences which APTPPL, in good faith, considers to arise from legitimate economic, commercial and technical considerations. Accordingly, the scheduling priority should operate in a non-discriminatory manner in relation to firm reference and firm negotiated services which should be stated in this provision.

The ACCC concluded that APTPPL will need to take into consideration existing contractual rights when framing its response to the following draft decision amendment 14.

Draft decision amendment 14

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must add an additional clause at the end of the provision to include the words, 'The order of priority will be determined in a non-discriminatory manner with firm services (whether negotiated or reference services) having the highest priority.'

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352 APTPPL *'Roma to Brisbane pipeline access arrangement APTPPL response to ACCC issues paper 4 July 2006'*, p. 8.

Metering and records

The quantity of gas delivered is the volume of gas multiplied by the average heating value. Some modern gas metering systems measure mass rather than volume flow with the delivered quantity being mass to heating value. It is therefore desirable to ensure that the clause cannot be used to restrict the use of modern metering systems. Having regard to the operational and technical requirements necessary for the safe and reliable operation of the covered pipeline (s. 2.24(c)), the ACCC proposed the following draft decision amendment 15.

Draft decision amendment 15

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend clause 24 of the terms and conditions to 'Where volumetric metering is used, the quantity of gas delivered at a delivery point on any day will be the product of the volume of gas delivered and the average heating value per unit volume of gas delivered as declared or measured for the pipeline on that day. Where mass flow metering is used, the quantity of gas delivered at a delivery point on any day will be the product of the mass of gas delivered and the average heating value per unit mass of gas delivered as declared or measured for the pipeline on that day.'

System use gas and linepack

The ACCC considered QGC's contention that if expansion of a pipeline can be achieved at a lower capital cost through compression rather than looping, the cost of system use gas should be APTPPL's responsibility.

It is important that the cost of compressor fuel gas be taken into account when assessing the cost of pipeline expansion options. However, there are arguments in favour of, and against, the service provider supplying and charging for system use gas. The strongest argument against this is that users may have the opportunity to purchase gas more cheaply than APTPPL.

It can be argued that if APTPPL were to purchase gas itself, it would have a greater incentive to minimise compressor fuel use. The ACCC was not provided with any evidence that APTPPL has operated the pipeline in a manner that disadvantages users with regard to compressor fuel use. The ACCC acknowledged that there are economic incentives for APTPPL to minimise consumption of system use gas whether or not APTPPL purchases the gas. That is, users will either be required to pay for system use gas directly or indirectly through the operations and maintenance costs.

Moreover, the way system use gas is defined in the proposed revised access arrangement will encourage its efficient use. For these reasons, the ACCC considered that clause 18 is consistent with APTPPL's legitimate business interests (s. 2.24(a)) and is not contrary to the interests of users or prospective users (s. 2.24(f)). Accordingly, that draft decision concluded that clause 18 was reasonable and did not require any amendment.

Connection of facilities to the pipeline and charges for receipt and delivery points

QGC stated in its submission that APTPPL does not make clear the circumstances in which it will withhold its agreement to a location sought by prospective user nor does it specify its usual standards for the construction of a receipt or delivery station. The ACCC considered that the amendment below would address QGC's concerns. Having regard to the interests of users and prospective users (s. 2.24(f)) the following draft decision amendment 16 was proposed.

Draft decision amendment 16

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend the words under the heading 'Delivery station' in schedule 3 of the access arrangement as follows:

Add the word 'reasonable' before 'technical, operational or safety considerations'.

Operational charges (imbalance, overrun, variance)

The ACCC did not agree with QGC that overrun and daily variance charges are not warranted. For overruns, a reasonable regime is necessary to discourage users from under-booking capacity and to discourage behaviour by a user that is likely to disadvantage other users. This point is particularly relevant when a pipeline is near to being fully contracted as with the RBP.

The ACCC considered that APTPPL's proposed charges for imbalance, overruns and variance are broadly in line with those of other pipelines.

The authorised overrun charges are the same as authorised overrun charges applied to the Central West Pipeline (CWP) and less than the 200 per cent overrun charge rate for the MSP. The unauthorised rate is more than the 200 per cent for CWP and less than the 350 per cent for MSP. However, because RBP is fully contracted (and therefore more sensitive to overruns), the ACCC considered that the charges proposed:

- were acceptable in preventing their misuse and to provide for the economically efficient operation of the RBP (s. 2.24(d))
- ensured the legitimate business interests of APTPPL (s. 2.24(a)) are taken into account, and
- adequately accounted for the interests of users and prospective users (s. 2.24(f)).

Daily variance charges are a mechanism by which service providers seek to encourage users to correctly nominate their gas needs and in so doing ensure the efficient operation of the pipeline. Users can avoid daily variance charges by ensuring that the quantity of gas they nominate to receive at each receipt point (or have delivered at each delivery point) is within a range of plus or minus 10 per cent of their MDQ. The ACCC considered this range provides users with reasonable flexibility and notes that the charge would only be applied if the variance occurs on more than four days in the month or 24 days in the contract year.

The ACCC therefore considered that a penalty of 120 per cent for variations beyond the 10 per cent range was reasonable in that it:

- provided users with the requisite incentive to correctly nominate their gas usage and further provide for the economically efficient operation of the RBP (s. 2.24(d))
- ensured the legitimate business interests of RBP (s. 2.24(a)) are taken into account, and
- adequately accounted for the interests of users and prospective users (s. 2.24(f)).

The ACCC adopted a similar view in its MSP final decision.[353]

In assessing the charges and the appropriateness of the gas balancing provisions, the ACCC was been guided by s. 2.24(c) of the code which requires the regulator to take into account the operational and technical requirements necessary for the safe and reliable operation of the pipeline.

The ACCC considered that the there is no evidence that the charges for the balancing arrangements are unreasonable. Furthermore, they appear to provide users with:

- a reasonable imbalance limit which is applied to the user's receipt and delivery points
- sufficient opportunity to rectify imbalances before the relevant imbalance charges are applied
- flexibility in rectifying monthly imbalances, and
- the necessary incentive to remain in balance as required for the safe and reliable operation of the pipeline.

Charges for receipt points or delivery points

A prospective user who is unable to gain access to an existing receipt station or delivery point may have no other option but to pay the costs quoted by APTPPL. Moreover, it is possible that a service provider could attempt to charge excessive prices for the initial construction and ongoing operating and maintenance services. Such an outcome would not be in the interests of prospective users, particularly given that the constructed receipt and delivery stations remain the property of APTPPL.

While the ACCC expressed some concerns with this issue, it noted that in accordance with s.8.23 of the code, a user may agree to pay the service provider a capital contribution. Section 8.24 also provides that all obligations between the service provider and the user on the capital contribution shall be as agreed between the service provider and the user.

If a prospective user and service provider disagree on the cost of construction of the receipt or delivery point, the prospective user is able to lodge an arbitration dispute under s. 6.1 of the code. The ACCC considered that the presence of the arbitration

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353 MSP Final decision, p. 263.

mechanism should operate as a constraint upon the potential exercise of monopoly power by APTPPL with regard to capital contributions for prospective users.

Notwithstanding the above considerations, while the charges in respect of receipt points or delivery points are similar to those currently in the RBP access arrangement and the MSP final decision,[354] APTPPL has an additional provision that it is able to recover from users the engineering investigation costs.

As with the proposed queuing policy discussed in section 3.5 of this draft decision, it is reasonable that the users who fund engineering investigations are not restricted from being able to extract some residual value from the expenditure such as the ability to distribute, subject to confidentially requirements, information generated by the investigation (where the potential user is unable to proceed with a request). This was discussed with APTPPL who agreed to amend the proposed revised access arrangement.

Nominations

QGC stated that the current nominations timetable is out of step with the needs of the market, and quoted the Victorian market as being able to function reliably with nominations closing immediately before the start of the day. However, the ACCC noted in the draft decision that, the Victorian transmission network operates differently from the South-East Queensland network and is therefore not directly comparable.

The ACCC acknowledged that the RBP was operated in a manner that seeks to minimise compressor usage while still fulfilling contractual obligations. As a consequence, APTPPL must be able to program compressor operation. Also, the ACCC noted that the RBP control room is not currently manned outside normal business hours. This reduces costs but limits the ability to adjust compressor operation during these times. Nevertheless, the ACCC informed APTPPL that it considered that users ought to be able make minor revisions to nominations within 24 hours of the commencement of the particular gas day, provided that the safe and efficient operation of the pipeline is not compromised.

3.3.6 Submissions in response to the draft decision

APTPPL

MDQ and MHQ

APTPPL noted that some submissions incorrectly described the service on offer as pipeline capacity. This misconceives the nature of the service offered as a reference service – which is the receipt, transportation and delivery of gas within MDQ, MHQ and pressure limitations.

APTPPL did not object to the principle underlying the draft decision amendment 10 and has reflected the principle in the revised access arrangement.

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354 MSP Final decision, p. 275.

2.3.2 MDQ and MHQ

(a) At the commencement of the Transportation Agreement the User will be required to establish for each Contract Year a User's MHQ and a User's MDQ which fairly reflect the User's expected requirements.

(b) The Reference Service may include multiple Receipt Points or Delivery Points and in those circumstances the. User must also establish an MHQ and MDQ for each Receipt Point and each Delivery Point which fairly reflect the User's expected requirements. at that Receipt Point and Delivery Point.

(c) Generally, the MHQ in either case will be no greater than the figure produced by the formula:

MDQ ÷24 x 1.2

(d) Subject to paragraphs (e) and (f), on any Day, APTPPL will receive at a Receipt Point quantities of gas up to the Receipt Point MDQ and will deliver at a Delivery Point a thermally equivalent quantity of gas up to the MDQ for that Delivery Point. In any Hour, APTPPL will receive at a Receipt Point and will deliver at a Delivery Point, a thermally equivalent quantity of gas up to the MHQ for that Receipt Point and Delivery Point.

(e) The sum of the Receipt Point MDQs or the Delivery Point MDQs may exceed the User's MDQ, but APTPPL will not be obliged on any Day to receive or delivery a quantity of gas in excess of the User's MDQ.

(f) The sum of the Receipt Point MHQs or the Delivery Point MHQs may exceed the User's MHQ, but APTPPL will not be obliged in any Hour to receive or delivery a quantity of gas in excess of the User's MHQ.

(g) Except as an Authorised Overrun, APTPPL will not be obliged:

(i) on any Day, to receive or deliver a quantity of gas greater than the User's MDQ;

(ii) on any Day, to receive at a Receipt Point a quantity of gas, excluding System Use Gas and the User's share of Linepack, greater than the MDQ for that Receipt Point or to deliver at any Delivery Point a quantity of gas greater than the MDQ for that Delivery Point; or

(iii) in any Hour to receive or deliver a quantity of gas greater than the User's MHQ; or

(iv) in any Hour, to receive at a Receipt Point a quantity of gas greater than the MHQ for that Receipt Point, or to deliver at any Delivery Point a quantity of gas greater than the MHQ for that Delivery Point;[355]

Transfer of receipt or delivery points

While APTPPL considered draft decision amendment 11 unnecessary, it did not object to the amendment.

68 (b) the User agreeing to pay a reasonable charge (determined by APTPPL) for the cost of transfer of the capacity, whether, including legal and other costs associated with consideration of the request to transfer. If the transfer does not proceed to completion, the User will only be liable for costs associated with consideration of the request to transfer up and until the time the user notifies APTPPL that it has decided not to proceed;[356]

Allocation

The draft decision repeats an assertion by QGC that APTPPL's right to adopt an allocation methodology "has been an historical problem as APTPPL has been unwilling

[355] Access arrangement for Roma Brisbane pipeline – updated to reflect certain amendments in draft decision, p 5

[356] ibid, p 46

to accept the user's requirements". APTPPL considered this assertion to be unreliable and untrue – QGC is not a shipper on the pipeline, so at most is repeating second-hand information, and APTPPL has not at any time exercised its right under existing gas transportation agreements and the 2002 access arrangement to adopt its own allocation methodology. While APTPPL considered draft decision amendment 12 unnecessary, it did not object to the amendment. This was reflected in the amended access arrangement.

> 56A. The allocation methodologies established by Users under clauses 55 and 56 must provide for following information to be provided by APTPPL: Nominations; Meter readings; Identify of shippers using the receipt points or delivery points; a clear description of the tranche or pro rata methodology used. APTPPL will be entitled to require methodologies to provide additional information where such additional information is reasonably required for the safe, efficient or reliable operation of the pipeline.[357]

Adjustment in MDQ for gross heating value

APTPPL did not consider draft decision amendment 13 reasonable or necessary.

APTPPL noted that the ACCC, users and APTPPL accept the principle of adjusting for heating value. The underlying rationale of the adjustment is to recognise that pipeline capacity, and tariffs, have been calculated on the assumption that the gas delivered into the pipeline by shippers will have a heating value of 40MJ/m3. If gas of a lesser heating value is delivered into the pipeline, APTPPL may not be able to comply with its contractual obligation to deliver a thermal (as opposed to volumetric) quantity of gas. Similarly, as shippers are charged for the energy (cf volume) delivered, APTPPL would not recover the expected revenue.

APTPPL commented that the ACCC's rationale for seeking draft decision amendment 13 appeared to be to accommodate the concerns of QGC who asserted that the existing mechanism may result in a higher tariff for some shippers. Thus the draft decision proposed revising the formulae so heating value adjustments would be directly proportional to the average heating value and also proportional to the inverse of the square root of the relative density.

In APTPPL's view the existing mechanism reflects the approved access principles that is, the regulatory system prior to the current system, the 2002 access arrangement and GTAs with all existing shippers. It notes that QGC is not a shipper on the RBP, and as far as it is aware, the formula has not been seen as particularly contentious by current shippers.

APTPPL stated that there is no reason to alter the existing formula that has been in use for many years. Additionally, the revisions to the existing practices and operations implicit in the proposed revision may adversely or unfairly affect users under existing GTAs who have entered into those agreements on the reasonable expectation that the mechanism would be reflected in future GTAs.

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[357] Access arrangement for Roma Brisbane pipeline – updated to reflect certain amendments in draft decision, p 44

To understand the impact of the proposed amendment, APTPPL sought advice from Venton and Associates on the differences between the two approaches. Venton concluded that neither approach was accurate and:

> unless there is a real need for an accurate prediction of the capacity impact, it seems that the APT equation should continue to be used, particularly since it is more favourable to producers who supply lower heating value gases.[358]

APTPPL stated that it was not aware of any other pipeline owners who use the proposed formulae. If there is a general significant technical issue in relation to the preferable treatment of variations in the heating value of gas supplied by shippers, APTPPL believes that the issue is best addressed by pipeline technical regulators and pipeline industry operating groups. These fora are more likely to result in a consistent approach across the industry that addresses the concerns of all participants.[359]

Gas quality specification

The draft decision includes a discussion on gas specification issues. The ACCC has subsequently indicated separately to APTPPL that in the proposed revised access arrangement subparagraph (q) of schedule 4B is inconsistent with subparagraph (f).

> it must not contain more than 65 milligrams per cubic metre of water vapour (f)
>
> not contain more than 112 mg/m3 of water vapour (q);[360]

APTPPL stated that the reason for this difference is that:

(f) above relates to gas received at receipt points; and

(q) above relates to gas delivered. Only one minor contract contains this 112 mg/m3 condition.

Given both clauses relate to existing contracts APTPPL did not consider it appropriate to modify the provisions in the revised access arrangement.[361]

In addition, APTPPL noted that in schedule 4A of the Wobbe Index has a minimum limit but no maximum limit is specified. This limit is 52.0 MJ/m3 and is shown in the amended revised access arrangement.[362]

The draft decision observed that the gas quality specification in Queensland differs from that under AS4564. APTPPL submitted that it is not the proper role of the regulator in assessing an access arrangement to be critical of the technical standards which APTPPL is required by law to apply, and by implication to criticise it for reflecting those standards in its access arrangement[363].

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358 Venton & Associates letter to Australian Pipeline Trust, 20 September 2006, p 3

359 APTPPL, 'Response to the Draft Decision', p 2.

360 Access arrangement for Roma Brisbane pipeline – updated to reflect certain amendments in draft decision, p 53-54

361 APTPPL, 'Response to the Draft Decision', p 49

362 Access arrangement for Roma Brisbane pipeline – updated to reflect certain amendments in draft decision, p 51

363 APTPPL, 'Response to the Draft Decision', p 42

Scheduling priority

APTPPL did not object to the intent of draft decision amendment 14, requiring the inclusion of certain information in a users allocation methodology. To ensure clarity APTPPL has amended clauses 52 and 53 of schedule 2 as shown in the revised access arrangement.

(whether on not they are Reference Services)

Metering and records

APTPPL did not object to the intention of draft decision amendment 15 and has amended clause 24 of schedule 2 using a slightly different form of words. The proposed wording to address the amendment is contained in the revised access arrangement and set out below:

24. The quantity of gas delivered at a Delivery Point on any Day will be the product of the average heating value of gas delivered as declared or measured for the Pipeline on that day and:

    (a) where volumetric metering is used, the volume of gas delivered on that Day;

    (b) where mass flow metering is used, the mass of gas delivered on that Day.[364]

Connection of facilities to the pipeline and charges for receipt and delivery points

APTPPL did not object to the draft decision amendment 16. This is reflected in schedule 3 of the revised access arrangement.

General matters

Various other access arrangement drafting issues have been raised by the ACCC, either in the text of the draft decision or in separate discussions with APTPPL. These are reflected in the revised access arrangement.

3.3.7 Final Decision

MDQ and MHQ

The intention of draft decision amendment 10 is that there should be flexibility in varying individual receipt point MDQ and individual delivery point MDQ. The ACCC notes that APTPPL has made a number of revisions to clause 2.3.2 of its revised access arrangement, in particular, APTPPL has removed the requirement that the sum of the delivery point MDQs and the receipt point MDQs must be the same. It has also included two additional clauses (clauses 2.3.2(e) and (f)) that state the sum of the receipt point MDQs/MHQs or the delivery point MDQs/MHQs may exceed the User's MDQ/MHQs, but APTPPL will not be obliged on any day/hour to receive or delivery a quantity of gas in excess of the user's MDQ/MHQ.

APTPPL has also made a number of complementary revisions to incorporate definitions of users MDQ and MHQ in (schedule 1) and in the obligation to transport (in clauses 5 and 6(in schedule 2)).

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[364] Access arrangement for Roma Brisbane pipeline – updated to reflect certain amendments in draft decision, p 39.

ACCC is satisfied that the removal of the requirement for the sum of the delivery MDQ and receipt MDQ to be equal and the addition of clauses 2.3.2 (e) and (f) addresses draft decision amendment 10.

ACCC notes APTPPL's comment that some submissions incorrectly described the service on offer as pipeline capacity. ACCC agrees that the nature of the service offered as a reference service is the receipt, transportation and delivery of gas within MDQ, MHQ and pressure limitations and notes APTPPL's revisions to clauses 5 and 6 above to this effect. The ACCC assesses these revisions as reasonable.

Transfer of receipt or delivery points

The ACCC notes that APTPPL has amended clause 68(b) of schedule 2 to ensure that, if a transfer does not proceed to completion, the user will only be liable for costs associated with consideration of the request. However, APTPPL has not incorporated the full text of draft decision amendment 11.

The ACCC remains concerned that a reasonable charge is undefined and is at APTPPL's discretion. A core component of proposed draft decision amendment 11 is that the user and APTPPL must agree on the charge.

The ACCC considers that APTPPL's amended clause 68(b) does not satisfactorily incorporate proposed draft decision amendment 11. It remains of the view that this amendment is necessary. Accordingly, the ACCC requires the following amendment to be incorporated in APTPPL's amended revised access arrangement.

Final decision amendment 08

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend s. 68(b) to read the 'User agreeing to pay a reasonable charge (determined by APTPPL and the User) for the cost of transfer of the capacity. If the transfer does not proceed to completion, the User will only be liable for the legal and other costs associated with consideration of the request to transfer up until the time the user notifies APTPPL that it has decided not to proceed.'

Allocation

The ACCC notes APTPPL's comment that QGC would not be in a position to assert that APTPPL has not been willing to accept user allocation requirements as it is not a shipper on the pipeline. However, in the context of considering this issue, the ACCC was made aware of APTPPL's typical allocation information requirements.[365] It noted that APTPPL had not specified these information requirements in the revised access arrangement. Accordingly, ACCC proposed draft decision amendment 12 in the interests of users and prospective users (s. 2.2.4(f) of the code).

The ACCC notes the addition of an extra caveat in clause 56A in the amended proposed revised access arrangement that 'APTPPL will be entitled to require

[365] APTPPL email to ACCC dated 4 July 2006.

methodologies to provide additional information where such additional information is reasonably required for the safe, efficient or reliable operation of the pipeline.' The ACCC assesses this caveat as being reasonable pursuant to s. 2.24 (c) (the operational and technical requirements necessary for the safe and reliable operation of the covered pipeline) of the code.

ACCC is satisfied that APTPPL has substantially incorporated and addressed the matters relating to draft decision amendment 12 in clause 56A in its amended revised access arrangement.

Adjustment in MDQ for gross heating value

The ACCC proposed an amendment to the formulae in clause 2.3.3 to make adjustment in MDQ directly proportional to the average heating value and also proportional to the inverse of the square root of the relative density.

The ACCC notes that APTPPL considers that this issue is best addressed by pipeline technical regulators and pipeline industry operating groups. The ACCC considers however, that it has an obligation in assessing the terms and conditions to ensure that APTPPL's adjustment formula is consistent with s 2.24 of the code, in particular, s 2.24(d) (the economically efficient operation of the covered pipeline) and s. 2.24(f) (the interests of users and prospective users).

To understand the impact of the proposed amendment, APTPPL sought advice from Venton and Associates on the differences between the two approaches. Venton concluded that neither approach is accurate and the APTPPL formulae should continue to be used.

The ACCC engaged Sleeman Consulting to consider both the ACCC and APTPPL approaches. Sleeman concluded:[366]

- The gross heating value based mechanism proposed by APTPPL appears to be slightly more accurate than the Wobbe Index based mechanism proposed by the ACCC although it also has a slightly more onerous impact for gases with a gross heating value below 40 MJ/m3.
- The mechanism proposed by APTPPL is already in use, including on other pipelines, and is easily administered. Although a more accurate algorithm could be developed to estimate pipeline capacity as a basis for capacity or tariff adjustment, such an algorithm would be complicated and administratively burdensome.
- It is recommended the capacity and tariff adjustment mechanisms as proposed by APTPPL be retained in the access arrangement for the RBP.

Accordingly, ACCC is satisfied that APTPPL has addressed the reasons for the proposed amendment and an amendment is not required for the revised access arrangement.

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366 Sleeman Consulting, *Review of pipeline capacity and tariff adjustment mechanisms*, 11 October 2006, p 3.

Gas quality specification

The ACCC notes APTPPL's response to the absence of a Wobbe Index maximum in schedule 4A – gas quality specification. The ACCC did not consider this inconsistency to raise any significant concerns for the access arrangement review and it was therefore not addressed in the draft decision.

Regarding the ACCC discussion of Australian Standard AS4564, ACCC reiterates that is has not conducted a full technical review of the gas quality specification and has made no criticism of the standard. It merely notes that AS 4564 has been accepted in all Australian jurisdictions except Queensland and that the Queensland derogation relating to hydrocarbon dewpoint is considered reasonable while the Queensland transmission system is not connected to other state networks.

Scheduling priority

Having regard to s. 2.2.4(a) and (f) of the code, the ACCC proposed that the scheduling priority provision should operate in a non-discriminatory manner in relation to firm reference and firm negotiated services.

The ACCC notes that APTPPL does not disagree with the intent of the amendment and that it proposed its own set of words. The ACCC is satisfied that APTPPL has addressed the matter identified by draft decision amendment 14 in clauses 52 and 53 of its amended revised access arrangement.

Metering and records

Having regard to s.2.2.4 (c) of the code, the ACCC proposed an amendment to the metering and records provision to ensure that it cannot be used to restrict the use of modern metering systems which measure mass rather than volume flow.

The ACCC notes that APTPPL does not disagree with the intent of the amendment and that it proposed its own set of words. ACCC is satisfied that APTPPL has substantially incorporated the intent of draft decision amendment 15 in clause 24 of its revised access arrangement.

Connection of facilities to the pipeline and charges for receipt and delivery points

The ACCC proposed draft decision amendment 16 having regard to s. 2.24(f) of the code to ensure that APTPPL would only withhold its agreement to a location of new facilities sought by a prospective user on reasonable technical, operational or safety grounds.

The ACCC is satisfied that the amended revision to the access arrangement incorporates draft decision amendment 16.

General matters

ACCC notes that APTPPL added the following words to the end of clause 3.3.5 'except as provided for in clause 2.3.4 (e)' to remove the inconsistency between the two clauses. The ACCC assesses this amendment as being reasonable.

3.4 Capacity management policy

3.4.1 Code requirements

Section 3.7 of the code requires an access arrangement to include a statement that the covered pipeline is either a contract carriage pipeline or a market carriage pipeline.

3.4.2 Current access arrangement provisions

The RBP access arrangement (s. 9) currently states that for the purpose of s. 3.7 of the code that the pipeline is a contract carriage pipeline.

3.4.3 APTPPL proposal

APTPPL stated that the pipeline is a contract carriage pipeline.

3.4.4 Submissions in response to the revised access arrangement

No submissions were received from interested parties on this issue.

3.4.5 Draft decision

In its draft decision, the ACCC noted that the revised access arrangement included a statement that the RBP is a contract carriage pipeline. Accordingly, it satisfied the requirements of s. 3.7 of the code.

3.4.6 Submissions in response to the draft decision

No submissions were received on this issue.

3.4.7 Final decision

No new evidence has been raised on this issue. The ACCC is satisfied that the policy accords with the requirements of s. 3.7 of the code.

3.5 Trading policy

3.5.1 Code requirements

Sections 3.9 to 3.11 of the code set out the requirements for a trading policy. If a pipeline is a contract carriage pipeline the access arrangement must include a trading policy that explains the rights of a user to trade its right to obtain a service to another user. The trading policy must, among other things, allow a user to transfer capacity:

- without the service provider's consent, if the obligations and terms under the contract between the user and the service provider remain unaltered by the transfer (a bare transfer), and
- with the service provider's consent, in any other case.

Consent may be withheld only on reasonable commercial or technical grounds and the trading policy may specify conditions under which consent will be granted and any conditions attached to that consent.

Section 5 and 5.8 of the code also requires a user to make such excess capacity available:

> Users with Contracted Capacity which they do not expect to use must make available to any person who requests it information about the quantity, type and timing of that unutilised Contracted Capacity. The User may notify the Service Provider of its unutilised Contracted Capacity so that it is included on the Service Provider's public register.

3.5.2 Current access arrangement provisions

Section 5 of the access arrangement currently states that a user may:

- make a bare transfer without the consent of the service provider provided that it notifies the service provider of the portion and nature of contracted capacity subject to the bare transfer
- transfer in any other case provided it has the service provider's prior consent. Consent will only be withheld on reasonable commercial or technical grounds, which may be given subject to reasonable commercial or technical conditions
- only change the receipt point and/or delivery point specified in an access arrangement with the prior consent of the service provider, which will only be withheld on reasonable commercial or technical grounds, and which may be given subject to reasonable commercial or technical conditions.

3.5.3 APTPPL proposal

APTPPL has proposed a trading policy that is essentially the same as its current arrangement. However, APTPPL has specified the criteria where it may give its consent for a transfer of capacity (other than a bare transfer) for reasonable and commercial grounds, including:

- the user agreeing to pay a reasonable charge determined by APTPPL for the cost of the transfer
- APTPPL and the transferee executing a transportation agreement relating to the transferred MDQ
- the MDQ being for the transportation of gas from the same receipt point to the same delivery point or an alternative receipt point subject to conditions
- the transferee agreeing with any other user currently using the relevant receipt point and delivery point on sharing the facilities and any conditions and charges, at no additional cost to APTPPL
- the transferee providing written confirmation that it has made all necessary arrangements with other relevant parties relating to the service
- if the transfer requires additional facilities, agreement to pay APTPPL for the cost of construction on such terms and conditions as are reasonably determined by APTPPL

- the user not being in default under the existing transportation agreement
- the transferee meeting the prudential requirements.

APTPPL has also added a clause stating that it will undertake to respond to requests for transfers within 14 business days unless the request involves:

- receiving gas at a receipt point further upstream than the existing one or
- delivering gas at a delivery point further downstream than the existing one.

In such cases APTPPL will advise within 14 business days of receipt of the request a work program to assess the effect of the request on the operation of the pipeline[367].

3.5.4 Submissions in response to the revised access arrangement

Concerns regarding the trading policy were raised in submissions from three users: Energex, Origin and QGC. In Brisbane on 15 May 2006, the ACCC also conducted a roundtable (roundtable) with users, other interested parties and APTPPL on the trading and queuing policies where a number of issues were raised[368].

Users commented that the existing policy has not been successful in facilitating capacity trading and that the revised policy is unlikely to facilitate it going forward. The issues raised in both the submissions and at the roundtable can broadly be summarised as:

- interpretation of what constitutes reasonable commercial grounds for refusal of transfer
- ability to trade linepack
- inflexibility in changing receipt and delivery points, and
- lengthy lead times on trading requests.

Each of these are discussed in more detail below.

Reasonable commercial grounds

At the roundtable participants expressed little concern with APTPPL's power to disallow capacity trades on technical grounds. They nevertheless required clarification of what might constitute 'reasonable commercial grounds' for refusal of a capacity transfer. QGC suggested that up-to-date capacity information on a website would enable users to better understand their options in accessing unused capacity.

Origin stated that the current wording of the trading policy allows APTPPL excessive discretion to reject transfer requests with little explanation. Energex suggested that while the addition of a definition of 'reasonable commercial grounds' may be helpful for users to understand the parameters for denying a transfer request on commercial

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367 Access arrangement for Roma Brisbane pipeline, 19

368 ACCC, *15 May 2006 Roundtable minutes,* cited as 'Roundtable Minutes'.

grounds, APTPPL has little incentive to facilitate trading as it is unlikely to receive additional revenue from the process.

Ability to trade linepack

The ability to trade linepack to facilitate balancing of accounts was an issue raised by several users at the roundtable.[369] The ability to trade linepack is relevant in situations where, for example, a user is unable to take its full capacity entitlement for a period due to plant breakdown.

QGC stated that there is no avenue available to users to amend pipeline nominations within appropriate timeframes and that users are forced to incur variance or imbalance quantities that may affect market operations.

To mitigate these potential effects, it believes that APTPPL must provide an additional nomination option where a user can transfer an imbalance to another user (who will have lodged a corresponding transferee nomination) to evidence an 'off-pipeline' transaction.

APTPPL commented that it does not believe a linepack trading mechanism for managing linepack would provide shippers with a better mechanism than the current nomination provisions. However, APTPPL stated that it is willing to reference linepack in the trading policy and to provide greater clarity on how future contracts will allow greater access to all nominated receipt and delivery points.[370]

Ability to change receipt and delivery points

Another trading issue raised at the roundtable was that users want greater flexibility to change receipt and delivery points than is provided for in existing contracts.

QGC stated that the bare transfer provision does not work in practice because of current refusals to allow shippers to add receipt points and change existing negotiated contracted delivery points. In its view, the flexibility to change receipt and delivery points is critical to an effective trading regime.

Lengthy lead times on trading requests

Energex expressed concern with the length of response time (14 business days) for general transfer requests. It stated that the time involved is inconsistent with business needs when trading requests are made for a substituted transfer or change of a receipt or delivery point. In situations where a trade is possible, timely responses and consent is essential to an effective trading regime.

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369 Linepack trading is discussed in this section of the draft decision as it was raised in the context of the trading policy. However, the relevant provision of the code would be s. 3.6, terms and conditions.

370 ACCC, 'Roundtable Minutes', p 5.

Energex also recommended an inclusion of a request turnaround time for urgent short-term requirements. Such a system would be achievable to fulfil a request within 48 hours.[371]

3.5.5 Draft decision

The ACCC particularly noted the different considerations that apply to short-term trading of capacity and trading of contractual rights. There is an incentive for some users with temporary excess capacity to trade. For example, plant operators may be required to shut down their plant for statutory pressure vessel inspection at periodic intervals. Such a company could reduce its gas costs by trading the capacity it does not use during those periods. Potentially it could also trade contracted volumes on a short-term basis during any periods of unscheduled plant shutdowns or of reduced production.

Power generators could also benefit from capacity trading to access additional fuel gas. Such a facility would offer greater arbitrage opportunities in the national electricity market.

APTPPL's trading policy outlined in its proposed revised access arrangement was considered by the ACCC to be essentially the same as currently contained in the access arrangement. However, interested parties stated the policy does not facilitate capacity trading. Accordingly, it was questionable whether the policy complies with the minimum requirements of the code. Following consideration of a number of aspects of the proposed trading policy, as discussed below, the ACCC found that the policy did not satisfy code requirements. Two amendments were proposed.

Reasonable commercial grounds

The ACCC's draft decision noted that a trading policy must enable prospective users to enter into transportation contracts that allow the user to transfer capacity as set out in s. 3.10 of the code. When the service provider's consent is required, s. 3.10 provides that the service provider may only withhold consent on 'reasonable commercial and technical grounds'.

Once the service provider and the user enter into a transportation contract that includes these terms, the user will be able to enforce its rights under the contract if it believes that a service provider has unreasonably withheld its consent.

Some interested parties sought to have APTPPL define what constitutes its 'reasonable commercial grounds' on which it would withhold its consent to transfer capacity before entering a transportation contract with it. The ACCC considered that it is in the interests of APTPPL and users to describe in some detail their proposed interpretation of 'reasonable commercial and technical grounds'. Although users with a transportation contract that includes these terms currently have the option to seek commercial arbitration or court action, the ACCC considered that disputes over future contracts could be avoided, and initial contract negotiations could be made clearer, if APTPPL would provide users with a better understanding of what it considers to be 'reasonable

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[371] Energex, 'submission' p 10

commercial grounds' and 'reasonable commercial and technical conditions'. Accordingly, it proposed draft decision amendment 17.

Draft decision amendment 17

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must explain in its proposed trading policy what constitute 'reasonable commercial grounds' and 'reasonable commercial conditions'. These must be consistent with code principles.

Ability to trade linepack

As noted in the draft decision, APTPPL has stated that it does not believe that either the current or proposed revised access arrangements restrict line pack trade.[372] Notwithstanding this, APTPPL publicly stated that it is willing to consider the issue further if users identify precise concerns with the proposed revised access arrangement.[373]

Given that this issue has been raised by users in both the current and initial access arrangement reviews, an amendment (draft decision amendment 18) was proposed to specify conditions under which trading of linepack would or would not be permitted.[374] Such conditions must be reasonable and subject to approval by the ACCC.

Draft decision amendment 18

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its proposed revised access arrangement to specify the conditions under which the trading of linepack will or will not be permitted. Such conditions must be reasonable and subject to approval by the ACCC.

Ability to change receipt and delivery points

Submissions made by a number of parties related to the use of receipt and delivery points and the transfer of MDQ by a user from one receipt or delivery point to another.

The ACCC noted that flexibility regarding choice of receipt or delivery points can be negotiated between the parties at the outset, possibly with some premium on the charges to the user. The code does not require APTPPL to forego rights it has arising from existing contracts but the proposed trading policy will permit users to provide for full flexibility in the ability to change receipt and delivery points. The ACCC considered that it is reasonable for APTPPL to seek cost recovery from users for transfer of receipt or delivery points.

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372 ACCC, 'Roundtable Minutes', , p. 4.

373 RBP access arrangement—APTPPL public response to roundtable, p. 5.

374 Linepack trading is not a specific requirement of the trading policy (ss 3.9-3.11 of the code). However, given that it has been raised by users in the context of the trading policy, for simplicity it is addressed here.

At the same time, it is not reasonable to deny the transfer of receipt or delivery points when the user is willing to meet the reasonable costs of the transfer.

Lengthy lead times on trading requests

APTPPL's trading policy was considered by the ACCC in the context of not only code requirements but also current developments in gas market reform. The Ministerial Council on Energy (MCE) agreed in April 2004 to expand the gas market element of the energy market reform program to accelerate the development of a reliable, competitive and secure natural gas market and to further increase the penetration of natural gas. One of the principles promoted for gas market development was that 'gas market participants should be able to freely trade between pipelines, regions and basins'.

The GMLG was established by the MCE to develop a gas market development plan to deliver on the MCE's objectives for a competitive, reliable and secure natural gas market delivering increased transparency, promoting further efficient investment in gas infrastructure and providing efficient management of supply and demand interruptions. The ACCC noted that, the GMLG examined two options for pursuing the MCE's gas market objectives:

- a bulletin board, or
- a short-term trading market.

Consistent with these policy developments and calls from users, the ACCC determined that there was merit in seeking a commitment from APTPPL to introduce an electronic bulletin board. The key objective would be to provide up-to-date information about where supply or pipeline constraints exist in real time, or may occur under certain conditions. This would help users (and prospective users) identify potential trading, risk mitigation or investment opportunities. Such an electronic bulletin board would also offer a facility for the voluntary posting of buy/sell offers for the supply or transportation of capacity.

In correspondence to the ACCC, APTPPL indicated it would consider an electronic bulletin board if its costs are recoverable from users.[375] It suggested that the users, who would be the beneficiaries of such trades, should fund any electronic bulletin board which facilitates trade. It further commented that any electronic bulletin board would need a level of commitment and involvement from users to be workable, particularly to provide information on unused capacity.

The ACCC considered that the maintenance and operation of the bulletin board may appropriately rest with APTPPL, users or the market operator.

The code (s. 5.9) requires the service provider to establish and maintain a public register of spare and developable capacity. APTPPL provided a copy of its public register and the information package. However, it stated that it does not currently provide electronic access to the register, nor does it inform users of changes to the register.

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375 RBP access arrangement—APTPPL response to roundtable, 24 May 2006, p 5

APTPPL indicated that it will establish electronic access to its register of spare and developable capacity if the costs are recognised as new facilities investment. Accordingly, the ACCC determined that it will allow the prudent costs borne by APTPPL in providing electronic access to be recognised in the current access arrangement period as new facilities investment and included in the opening capital base for the next access arrangement period consistent with relevant code provisions.

3.5.6 Submissions in response to the draft decision

APTPPL stated that it is clear from ss. 3.9 and 3.10 of the code that a trading policy is to address the circumstances in which persons with contracts for pipeline services can trade those rights with other parties. APTPPL stated that, contrary to what is suggested in the draft decision, it considers that a trading policy is not required 'to facilitate capacity trading' or to inform users of 'their options in accessing unused capacity'. It disagreed with the conclusion in the draft decision that it is 'questionable' whether APTPPL's proposed trading policy complies with the minimum requirements of the code. APTPPL also noted that its proposed trading policy is either the same as, or very similar to, the trading policies in numerous access arrangements approved under the code.[376]

Accordingly, APTPPL considered draft decision amendment 17 unnecessary, and a response to ill-founded user concerns that a lack of prescription as to what are 'reasonable commercial conditions' means that the trading policy will operate to their disadvantage.

Despite raising these concerns, APTPPL has submitted an amended proposed trading policy in the revised access arrangement addressing the meaning of 'reasonable commercial conditions':

> 5.3A Meaning of "reasonable commercial and technical"
>
> For the purposes of Clauses 5.2 and 5.3 "reasonable commercial grounds" and "reasonable commercial conditions" include allowing the Service Provider to deliver the same amount of the Service, receive the same amount of revenue and bear no additional capital or non-capital costs, as applied before the trade.
>
> Examples of items that would be reasonable are:
>
> (a) APTPPL refusing to agree to a User's request to change its Delivery Point where a reduction in the amount of the Service provided to the original Delivery Point will not result in a corresponding increase in APTPPL's ability to provide that Service to the alternative Delivery Point; and
>
> (b) APTPPL specifying that, as a condition of its agreement to a change in the Delivery Point or Receipt Point, APTPPL must receive the same amount of revenue, and bear the same level of costs, it would have received or borne before the change.

APTPPL did not consider that draft decision amendment 18 (in regard to linepack trading) was reasonable or necessary. APTPPL remains of the view (as acknowledged in the draft decision) that neither the current or proposed revised access arrangement restrict line pack trading. It had offered to consider the issue further if precise concerns

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376 APTPPL, 'Response to the Draft Decision', p 44

were identified. However, APTPPL noted that no specific concerns were identified by interested parties.

APTPPL has assumed that the intent of the request for the ability to 'trade' linepack is for shippers to be able to manage their linepack. In its view, there is nothing in the access arrangement to prevent users 'trading' linepack or imbalances. Users are currently able to manage their linepack through the nominations provisions. APTPPL considers that these provisions are sufficient and are consistent with the current operation of the pipeline and existing contracts. Any separate system of linepack trading would add a further layer of unnecessary complication.

Potential changes to the access arrangement relating to electronic capacity registers and bulletin boards were discussed in the draft decision. APTPPL stated that it did not object to the following:

- the establishment of electronic access to its register of spare and developable capacity if the prudent costs of this activity will be recoverable as a new facilities investment via the access arrangement process.
- the investigation of the introduction of an electronic bulletin board. Any investigation will depend on related policy developments and will require the good faith participation of users. For any bulletin board to be successful users will need to engage in posting of buy and sell offers for capacity.

APTPPL stated that it expects that any prudent costs of investigating, implementing and operating a bulletin board, which are not recovered from bulletin board users, will be recoverable via the access arrangement process.[377]

3.5.7 Final decision

ACCC acknowledges APTPPL's concerns with the comment in the draft decision that it is questionable whether the proposed trading policy complies with the minimum requirements of the code. It also notes that APTPPL has considered both of the proposed amendments unnecessary.

The ACCC notes that users and interested parties suggested that the trading policy has not been successful in facilitating capacity trading. The draft decision did not suggest that the trading policy is required to facilitate capacity trading or to inform users of their options in accessing unused capacity. However, in the context of considering this issue raised by interested parties, the ACCC was made aware of the operation of APTPPL's trading policy which led to the draft decision amendments.

With regard to draft decision amendment 17 (that APTPPL must explain the meaning of the reasonable commercial and technical grounds on which APTPPL would withhold its consent to transfer capacity), the ACCC notes that the trading policy must comply with the principles as set out in s. 3.10 of the code. The regulator can determine whether the principles outlined in the trading policy are appropriate given the circumstances of the pipeline. The last sentence of s 3.10 (b) of the code provides that

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377 APTPPL, 'Response to the Draft Decision', p 48.

the '…trading Policy may specify conditions in advance under which consent will or will not be given and conditions that must be adhered to as a condition of consent being given'.

In determining whether APTPPL should specify conditions in advance, the ACCC must take into account the considerations set out in s. 2.24 of the code. Sections 2.24 (d), (e) and (f) are of particular relevance in this instance, as users have asserted they have had difficulties in trading capacity in the past which is against the public interest, the interests of users and prospective users as well as the efficient operation of the pipeline. The ACCC considers that in these circumstances it is appropriate that conditions regarding the giving of consent be specified.

Notwithstanding the above, the ACCC notes that APTPPL did not disagree with the intent of the amendment and has proposed its own set of words.[378] ACCC is satisfied that APTPPL has incorporated draft decision amendment 17 in clause 5.3A of its revised access arrangement.

APTPPL stated that it did not believe that either the current or proposed revised access arrangement would restrict line pack trading.[379] It has offered to consider the issue further if users identified precise concerns with the proposed revised access arrangement. The ACCC has considered APTPPL's submission that the access arrangement does not prevent line pack trading. It notes that no specific evidence has been presented to either APTPPL or the ACCC of impediments to line pack trading. As a result, the ACCC accepts APTPPL's submission that the current provisions are sufficient and no amendment is required.

The ACCC notes APTPPL's agreement to establish electronic access to its register of spare and developable capacity if the prudent costs of this activity will be recoverable as a new facilities investment or non-capital costs as the regulator agrees as appropriate.

The ACCC stated in the draft decision that it will allow the prudent costs borne by APTPPL in providing electronic access to be recognised in the current access period as new facilities investment and included in the opening asset capital base for the next regulatory period consistent with relevant code provisions.

Separately, the ACCC notes that APTPPL has indicated that it is willing to consider the introduction of an electronic bulletin board if there is commitment from users and where APTPPL's costs are recoverable from users or via the access arrangement process.

The ACCC notes that clause 4.5 of the amended revised access arrangement is incorrectly labelled 'bulletin board'. The text of the clause refers to the electronic access to its register of spare and developable capacity rather than an electronic bulletin board as envisaged in the draft decision.

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[378] APTPPL does not specifically state that it does not disagree with the intent of draft decision amendment 17. However, the ACCC considers APTPPL's preparedness to include wording in its access arrangement raises the possibility of its tacit agreement with the intent of the amendment.

[379] This was the basis of draft decision amendment 18.

In conclusion, the ACCC, for the reasons discussed above, is satisfied that the trading policy as revised meets the requirements of the code.

3.6 Queuing policy

3.6.1 Code requirements

Section 3.12 of the code requires a queuing policy. Section 3.13 of the code requires that the queuing policy must:

> (a) set out sufficient detail to enable Users and Prospective Users to understand in advance how the Queuing Policy will operate;
>
> (b) accommodate, to the extent reasonably possible, the legitimate business interests of the Service Provider and of Users and Prospective Users; and
>
> (c) generate, to the extent reasonably possible, economically efficient outcomes.

Section 3.14 provides that:

> The Relevant Regulator may require the Queuing Policy to deal with any other matter the Relevant Regulator thinks fit taking into account the matters listed in section 2.24.

Section 5.1 of the code requires a service provider to maintain an information package for prospective users containing the following:

- the access arrangement and access arrangement information
- a summary of the public register of capacity
- information on the covered pipeline
- a description of the service provider's procedures relating to specific access requests, and
- any other information the regulator considers reasonable.

Section 5.2 of the code allows the relevant regulator to require the service provider to amend or include additional information in the information package.

3.6.2 Current access arrangement provisions

Section 6 of the access arrangement currently states that when there is insufficient capacity to satisfy a request, a queue will be formed. At the time a request is placed in the queue, the service provider will advise the prospective user of queue details.

A prospective user may reduce but not increase the capacity sought in a request which is in a queue.

A request for a reference service will have priority over a request for the same service at a tariff less than the reference tariff.

3.6.3 APTPPL proposal

The proposed queuing policy is similar to that currently in the access arrangement but with the additional provision for investigations to determine if capacity is available.

When APTPPL advises a prospective user that investigations are required to determine whether capacity is or can be made available, APTPPL will also advise the prospective user of the nature, likely duration and cost of the investigations. The prospective user may then determine whether it wants APTPPL to undertake the investigations. Prospective users may share these costs in the proportion agreed to between them and APTPPL.

When the investigation identifies that investment is required to make capacity available, APTPPL will advise each of the prospective users on the queue of its plans to make capacity available and the terms and conditions on which the capacity will be available.

3.6.4 Submissions in response to the revised access arrangement

At the roundtable, several interested parties raised concerns relating to the existing queuing policy. Users indicated that the policy has not been successful in providing timely access to new (developable) capacity. The specific concerns raised by interested parties at the roundtable can broadly be summarised as follows:

- The time taken to negotiate access to new capacity is too long.
- Insufficient information has been provided to users previously on the cost of new capacity and how those costs are allocated between users when more than one user seeks access to that capacity.
- Users face considerable uncertainty regarding final demand, particularly in the early stages of project development and this has implications for the quantum of capacity they may seek.
- With the introduction of full retail contestability there is greater prospect of end users making alternative supply arrangements.
- The requirement that users fund engineering investigations to obtain a position on the queue for new capacity is not reasonable.
- It is not clear that the proposed queuing policy allows users who fund engineering investigations to extract some residual value from the expenditure (for example, the ability to sell information generated by the investigation when the prospective user is unable to proceed with a request or their ability to trade or sell their position in the queue).
- There is uncertainty among users about how the policy operates for existing capacity and new capacity.
- When services are based on a negotiated outcome, the queuing policy may be superfluous, given APTPPL will be in a position to manage the interests of parties and negotiate the best outcome regardless of a party's status in the queue.

In its submission, Energex sought further clarification on the operation of the queuing policy for contracted capacity approaching the expiry of a long-term contract. In particular, it is concerned that one of the following situations could occur:

- The contracted party has the ability to recontract at negotiated prices, rather than in terms of the reference tariff, with the potential threat of losing priority to the capacity.
- The contracted party will lose priority to the capacity and it will be offered to the next party within the queue.

A further area of concern of users relates to the length of time taken to negotiate access to new capacity. Energex argues that:

> … a period of 30 days for a prospective user to accept an offer provides little opportunity for the user to negotiate before potentially losing priority on the queue. ... A user can raise a dispute without losing priority. However, a dispute may prolong negotiations and cause delays in resolving access and perhaps in turn causing delays for the availability of additional capacity to other users.[380]

3.6.5 Draft decision

The draft decision noted that APTPPL's proposed queuing policy is similar to that currently in the access arrangement. It also noted that users have asserted that the policy does not facilitate timely access to capacity. After consideration of the views of users, interested parties and APTPPL, the ACCC concluded that the proposed policy did not meet code requirements, particularly s. 3.13(c) covering the requirement for economically efficient outcomes. Accordingly, a number of amendments to the policy were proposed in the draft decision as discussed below.

Section 5.2 of the code gives the ACCC the ability to require APTPPL to include additional information that will help a prospective user decide whether or not to seek services from the RBP in the information package. Such information can include details relevant to price, (including cost data for new (developable) capacity i.e. an indicative tariff) so long as it would not be unduly harmful to the legitimate business interests of the service provider, user or prospective user. The ACCC indicated that, in its view, the provision of indicative tariff information would assist in producing economically efficient outcomes.

The draft decision acknowledged that, as the RBP is almost fully contracted until 2012, most access inquiries from prospective users will arise in a context where an expansion of capacity will be necessary. It would help prospective users to assess the attractiveness or otherwise of any expansion proposal if they were presented with some form of preliminary tariff information. This would help them in determining whether to proceed to the next stage of funding an investigation.

For these reasons, the ACCC considered that it is within the scope of any other information required by the relevant regulator to be included in the information package (s. 5.1(e)).

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[380] Energex, 'submission', p. 9.

APTPPL indicated a willingness to provide indicative tariffs, provided that such information would be non-binding and provided only to enable a user to decide whether to contribute to investigations.[381]

Accordingly, separately from this access arrangement, the ACCC, under s 5.2 of the code stated that it would require APTPPL to include in its information package for the RBP indicative tariffs for developable capacity.

Further, having regard to the interests of users and the need to generate economically efficient outcomes, the ACCC proposed the following draft decision amendment 19 to the access arrangement.

Draft decision amendment 19

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must add a clause to the end of s. 6.1(e) of the proposed queuing policy to state that it will specify an indicative tariff before the start of an investigation into new capacity. This may be an indicative tariff specified in the information package if that indicative tariff is appropriate for the service sought by the prospective user.

The ACCC considered that the provision that APTPPL may require a prospective user to fund or partially fund an engineering investigation on new capacity options and costs in the draft decision. It concluded that the provision was reasonable, given the considerable cost which detailed engineering investigations can entail. It also provides a means of assessing the degree of user commitment associated with the queuing request.

The ACCC considered prospective users who did agree to fund an investigation into new capacity options should receive the findings of this investigation. Accordingly, it proposed draft decision amendment 20 as set out below.

Draft decision amendment 20

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must add a clause to the proposed queuing policy to state that a user who pays for a capacity investigation will be provided with a written report which:

- details the options considered to provide the developable capacity
- provides an itemised cost estimate for at least the recommended option
- provides a firm tariff for the capacity sought and the basis for deriving the tariff
- provides details on the allocation of costs of providing new capacity when more than one user would be using the new capacity.

The ACCC also acknowledged in the draft decision that users have also expressed a desire to extract some residual value from expenditure on capacity investigations, in particular, the right to distribute information generated by an investigation or trade their

[381] RBP access arrangement—APTPPL response to roundtable, p. 3.

position in the queue, in circumstances where the user is unable to proceed with a request.

In correspondence to the ACCC following the roundtable, APTPPL indicated a willingness to permit assignment of a request (that is allow a user to trade its position in the queue). However, it stated that issues such as the potential for gaming and capacity hoarding would need to be addressed and that any queue trading system would have to be designed to ensure that it does not have unintended effects on competing shippers and would also have the endorsement of user groups.[382]

The ACCC agreed with the parties that a place in the queue should be tradable provided the potential for gaming and hoarding could be managed consistent with the objectives of s. 3.13(c). Accordingly, it proposed draft decision amendment 21.

Draft decision amendment 21

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend the proposed queuing policy to permit a prospective user to transfer its rights in a queue to another prospective user.

Further, the draft decision discussed whether prospective users should be able to manage uncertainty about the level of capacity to specify by either lodging a request for the highest expected quantity of capacity or by lodging a series of requests to cover possible load sizes.

Under clause 6.2(a) of the proposed revised access arrangement, the prospective user can reduce its requested capacity. However, the proposed revised access arrangement does not allow a current user to roll over its capacity rights at the expiry of the contract. It was noted that an automatic roll-over may entrench current users and would not be fair to prospective users. As a result, the ACCC did not believe such a requirement was appropriate.

However, the ACCC suggested that users' concerns about the uncertainty associated with the operation of the policy for existing capacity and new capacity could be addressed through operating separate queues for existing and new capacity. Accordingly, it proposed draft decision amendment 22.

Draft decision amendment 22

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend the proposed queuing policy to provide for separate queues for existing and new capacity.

3.6.6 Submissions in response to the draft decision

APTPPL did not agree with the ACCC's use of s. 5.1. It stated that an information package is intended to provide information in relation to the covered pipeline, not information as to what the applicable tariff might be if the pipeline is expanded or

[382] ibid., p. 3.

extended in a particular way in the future. According to APTPPL, the code does not require a service provider, in preparing and maintaining its information package, to create volume or capital forecasts for the purposes of identifying possible future tariffs.

Nevertheless, APTPPL was prepared to address the intent behind draft decision amendment 19, which is to provide some indication to prospective users of a range of possible tariffs, to assist them in considering whether to contribute to the costs of an investigation. It stated that this information could be provided on the basis that the indicative tariff is non-binding, can be expressed as a reasonable range and is for the sole purpose of assisting prospective users consider whether they share the costs of an investigation under clause 6.3. This was reflected in the amended access arrangement.

> (v) In the event that investigations are required under 6.1(e)(iv) APTPPL will, upon request, provide the Prospective User with a general indication of the range of tariffs which may be applicable in relation to any capacity expansion or extension (Indication). An Indication will be provided for the sole purpose of assisting Prospective Users to consider whether they share the costs of an Investigation under clause 6.3, will be confidential and will not be binding on either party.
>
> (vi) APTPPL will not be liable to the Prospective User for any cost, loss , expense or other matter arising from the provision of an Indication, or from the Prospective User's use of or reliance on an Indication, including where any tariff subsequently offered to the Prospective User or any other person is greater or less than the Indication.

APTPPL considered that draft decision amendment 20 as proposed was unnecessary and unreasonable. It claimed that the amendment seeks to impose significant obligations on a service provider beyond those applicable under the code. APTPPL also expressed some reservations about its operation in practice. In particular,

- it is not possible to provide a 'firm tariff' until all prospective users who contributed to the investigation have identified their final load requirements
- the disclosure of itemised costs is not required under the code and would allow a third party to determine APTPPL's target rate of return for new investment, which is commercially sensitive, and
- the disclosure of cost allocations with a third party is likely to result in the release of confidential information relating to that third party.

APTPPL stated that the code does not require a service provider to undertake any expansion or extension. The service provider's extensions/expansions policy, if reasonable, is fundamentally a matter for the discretion of the service provider. It stated that the queuing and extensions/expansions policies contained in the proposed access arrangement were considered reasonable and consistent with numerous other approved access arrangements.[383]

Further APTPPL stated that the intrusion into APTPPL's commercial and business decisions inherent in the proposed amendment was unreasonable and unnecessary.

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383 APTPPL, 'Response to the Draft Decision', p 46

However, despite these concerns, APTPPL has submitted an amended revised queuing policy for the RBP access arrangement. APTPPL has proposed:

> 6.3 (e) A Prospective User who has paid for an Investigation under section 6 will, on entering into appropriate confidentiality arrangements, receive a written report which
>
> - describes the options considered to provide the capacity;
> - describes APTPPL's preferred option to provide capacity or provides reasons why no recommendation is made; and
> - outlines the key capital assumptions relied on in identifying the preferred option.
>
> (f) Where a Prospective User bears the costs of an Investigation and the Prospective User decides not to proceed with the Request, that Prospective User may assign:
>
> (i) the Request to which the Investigation relates, and
>
> (ii) information in the possession of that Prospective User relevant to the Investigation to a bona fide assignee and that assignee may use the results of the Investigation provided that the assignment does not disclose confidential information without the consent of persons to whom such information relates.[384]

APTPPL acknowledged the aim of draft decision amendment 21. However, it expressed some reservations about its operation in practice. In particular, APTPPL stated that it recognises the potential for gaming and hoarding that implementation of the amendment would create. APTPPL has attempted to address this in the amended proposed wording contained in Schedule A of the access arrangement. APTPPL expressed a willingness to consider drafting suggestions made by the ACCC, users or third parties, which may prevent such gaming with a view to improving this section of the access arrangement. According to APTPPL, it seemed from the draft decision that the intention was that this amendment was to apply in circumstances where a prospective user has contributed to investigations, so the amendment has been drafted in that way (see preceding text).

APTPPL considered that draft decision amendment 22 to provide for separate queues for existing and developable capacity may be unworkable or ineffective in practice, but indicated that it was willing to consider specific proposals made by the ACCC, users or third parties.

APTPPL stated that it is largely indifferent to the approach taken as long as it can be managed efficiently and effectively, and does not leave APTPPL in breach of other requirements (for example, requirements to act in a non-discriminatory manner). Pending all interested parties agreeing on the detail of how a two queue queuing policy would operate, APTPPL submitted that the queuing policy included in the proposed revised access arrangement (as submitted in January 2006) was reasonable.

APTPPL stated that a possible approach to achieving the aim of the ACCC's two queue amendment could be:

- a queue is maintained for requests for service that can be met from the existing uncontracted capacity of the pipeline (existing capacity queue), and

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384 APTPPL, 'Response to the Draft Decision', p 46

- a queue is maintained for requests for service that can be met by an increase in the capacity of the pipeline (developable capacity queue).

The decision as to which queue a request for service is allocated to would be at APTPPL's discretion (and APTPPL would not be required to provide any information explaining the basis for allocating a request for service to a specific queue). It noted that, typically, if a request is for a level of capacity greater than existing uncontracted capacity the request will be placed on the developable capacity queue and not on the existing capacity queue (or the prospective user invited to decide whether to 'split' the request between the existing and developable capacity queues).

APTPPL will take the current queue and allocate it to either the existing capacity queue or the developable capacity queue.

APTPPL identified a number of practical concerns about how a two queue system would operate including:

- incentives for gaming if there is a price differential between the current capacity queue and a new capacity queue. For example if new capacity has a higher price and prospective users compete in the same end market (eg retailers, power stations) then there is the potential for the prospective users to purchase all available low priced capacity to force their competitors to use the higher priced capacity
- the impact that the incentives outlined in the point above may have on expanding the pipeline in a timely manner.[385]

APTPPL stated that it is willing to further discuss and refine the two queue process to address ACCC and user concerns. APTPPL is of the view the queuing policy exists for the benefit of users.

3.6.7 Final decision

The ACCC notes APTPPL's concern with its use of s. 5.1 of the code. However, under s. 5.2 of the code the regulator may require the service provider to amend or include additional information in the information package if it will assist prospective users to decide whether or not to seek services from the service provider.

As noted in the draft decision, the RBP is almost fully contracted until 2012. Therefore, most access inquiries from prospective users will arise in a context where expansion of capacity will be necessary. The ACCC considers that it would assist prospective users to assess the attractiveness or otherwise of any expansion proposal if they were presented with some form of preliminary tariff information. This would allow them to determine whether to proceed to the next stage of funding an investigation.

The ACCC notes that s 5.1(e) of the code provides that a service provider must establish and maintain in its information package under s. 5.2 any other information the relevant regulator reasonably requires to be included. Accordingly, separately from this

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385 APTPPL, 'Response to the Draft Decision', p 7.

access arrangement, the ACCC restates that under s 5.2 of the code, it will require APTPPL to include in its information package for the RBP indicative tariffs for developable capacity.

The ACCC notes that APTPPL did not disagree with the intent of draft decision amendment 19 and that it proposed its own set of words. ACCC is satisfied that APTPPL has substantially incorporated draft decision amendment 19 in clauses 6.1 (e) (v), (vi) of its amended revised access arrangement by undertaking to provide some indication to prospective users of a range of possible tariffs.

The intent behind draft decision amendments 20 and 21 was to allow users to extract some residual value from their expenditure on capacity investigations. The ACCC notes that APTPPL did not disagree with the aim of these amendments[386] and that it proposed its own wording to address its concerns about the potential release of commercially sensitive or confidential information and the potential for gaming and hoarding. In relation to draft decision amendment 20, the ACCC acknowledges that APTPPL is willing to consider drafting suggestions made by ACCC and or users, which may prevent gaming and hoarding.

The ACCC is satisfied that APTPPL has substantially incorporated the intent of amendments 20 and 21 in clauses 6.3 (e), (f)[387] of its revised access arrangement by undertaking to provide a written investigation report and to allow queue transfer rights.

The ACCC disagrees with APTPPL's assertion that the code does not require a service provider to undertake any extension or expansion. Section 6.22 of the code states that the arbitrator may require the service provider to expand the capacity of a covered pipeline to meet the requirements of a prospective user.

The ACCC notes that APTPPL has indicated a willingness to consider specific proposals made by the ACCC, users or third parties to provide for separate queues for existing and developable capacity. It agrees that the two queue system must be able to be managed efficiently and effectively, not leave APTPPL in breach of other requirements, provide gaming/hoarding opportunities to certain users or restrict the timely expansion of the pipeline.

APTPPL's submission in response to the draft decision outlines one possible approach to a two queue policy, that is, an existing and developable capacity queue with APTPPL having absolute discretion as to which queue a request for service shall be allocated. The ACCC does not agree that APTPPL should decide which queue a request for service should be allocated to. Rather it should be the prospective user who should be able to nominate the queue. This would be consistent with APTPPL's statement that the queuing policy exists for the benefit of users and with the other ACCC amendments to the queuing policy made in the interests of users.

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386 APTPPL does not specifically state that it does not disagree with the intent of draft decision amendment 20. However, the ACCC considers APTPPL's preparedness to include wording in its access arrangement may be seen as tacit agreement with the intent of the amendment.

387 Associated revisions to the draft decision include reference to queue transfer rights in respect of charges in respect of receipt and delivery points (clause 3.3.4 (d)) and conditions applicable on a queue (clause 6.2(d) (ii)). The ACCC assesses these as reasonable.

In particular, providing prospective users with discretion, is consistent with APTPPL's revised clause 6.3(e) which enables a prospective user (after having funded a capacity investigation) to receive information containing the options considered to provide the capacity. This information may result in a prospective user seeking to be placed on the existing capacity queue, the developable capacity queue or both.

The ACCC considers that the potential for gaming or hoarding may not be any greater on a two queue system than on a one queue system. All prospective users have the same rights to nominate to be placed on a queue and can elect whether to fund an investigation into developable capacity or not.

Accordingly the following revised amendment is proposed.

Final decision amendment 09

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend the proposed queuing policy to provide for separate queues for existing and developable capacity. APTPPL will maintain a

- a queue for requests for service that can be met from the existing or future uncontracted capacity of the existing pipeline (existing capacity queue); and

- a queue for requests for service that can be met by an increase in the capacity of the pipeline (developable capacity queue).

A prospective user can nominate which queue(s) a request for service should be allocated.

3.7 Extensions and expansions policy

3.7.1 Code requirements

Section 3.16 of the code requires an access arrangement to have an extensions and expansions policy. The policy must set out the method to determine whether any extension to or expansion of the system's capacity will be treated as part of the covered pipeline. A service provider is also required to specify the effect on the reference tariff if an extension or expansion is treated as part of the covered pipeline. If the service provider agrees to fund new facilities if certain conditions are met, the extensions and expansions policy must outline the conditions under which the service provider will fund those new facilities and provide a description of those new facilities.

3.7.2 Current access arrangement provisions

If the service provider undertakes a extension to the pipeline it will decide, after consultation with the regulator, whether the extension is covered and subject to the access arrangement.

If the service provider expands the capacity of the pipeline above 178 TJ/day, the expansion will, when it comes into operation, be covered and be subject to the access arrangement unless the regulator agrees that the expansion should not be covered.

When an expansion is covered and is subject to this access arrangement, access to that capacity will be offered as a negotiated service at a negotiated tariff.

Generally, the service provider would expect to continue to expand the capacity of the pipeline to meet requirements for additional capacity when:

- there are sufficient proven reserves to cover the economic life of the expanded pipeline
- the user commits to the use of the expanded capacity at a tariff negotiated between the service provider and the user, and
- it is technically and economically feasible to provide additional capacity.

3.7.3 APTPPL proposal

APTPPL proposes that if it undertakes a extension to the pipeline it will decide (after consultation with the ACCC) whether the extension is covered. When an extension is covered, access to services provided through that extension will be provided as a negotiated service at a negotiated tariff.

APTPPL proposes that if it expands the pipeline above the existing capacity,[388] the expansion will, when it comes into operation, be covered unless APTPPL proposes and the regulator agrees that the expansion should not be covered. When an expansion is covered, access to services provided using that capacity will be offered as a negotiated service at a negotiated tariff.

Negotiated tariffs may differ from the reference tariff as additional capital and non-capital costs relating to the capacity expansion are incurred.[389]

Augmentation would occur when, in APTPPL's opinion, it is technically and economically feasible. APTPPL has not forecast any capital costs relating to extensions and expansions of the RBP in its calculation of the reference tariff.

APTPPL proposes in clause 4.2(c) that if it undertakes new facilities investment in relation to an expansion of the capacity or extension of the RBP, it can elect whether:

- the additional capacity is rolled into the existing capacity, with access to that combined capacity being provided as a single reference service
- the costs of the additional capacity will be recovered through charges for a separate reference service

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388 Existing capacity is defined as the capacity of the pipeline as it is configured on 31 January 2006, which is licensed at around 180 TJ/day but delivers up tot 202.9 TJ/day according to APTPPL's revenue model.

389 Roma to Brisbane pipeline access arrangement response to ACCC request for information dated 2/3/06 and 24/3/06, p. 19.

- the costs of the additional capacity will be recovered through charges for a negotiated service.

3.7.4 Submissions in response to the revised access arrangement

At the roundtable, several users questioned the appropriateness of negotiation as a basis for expansions and were concerned about the level of information provided to prospective users to assist in their negotiations.

In submissions responding to the issues paper, the following comments were also received.

Energex did not support the proposal to restrict application of the reference tariff to existing capacity and subject future capacity to commercial negotiation. Energex considered that:

- offering expanded capacity as a negotiated service does not satisfy the purpose of the code
- future expansions should be directly included in the access arrangement including calculation of the revenue and reference tariff based on the cost of these expansions. It states that the code supports this position by providing for new investment facilities and/or surcharges over and above the reference tariff. In other words, there are sufficient mechanisms available in the code for APTPPL to recover its prudent capital spend for any expansion.
- the exclusion of new capacity will deny prospective users the benefit of a regulated tariff to assist in negotiations
- the lack of transparency does not support third party access and may lead to monopoly prices, and may not encourage an efficient gas transmission industry
- a tariff based on the expanded capacity (i.e. based on DORC) could be used.[390]

Origin expressed concern at the lack of detail provided by APTPPL on how it would determine negotiated tariffs. Origin noted that APTPPL did not provide any principles, methodologies or quantitative detail on costs or tariffs. Origin suggested that multiple tariffs to reflect the different tranches of capacity be provided, partly so that the costs of each are transparent and partly for clarity on what existing capacity means in practical terms for negotiations.[391]

Origin also stated that the code requires incremental capacity to be determined on the basis of a separate surcharge, which it supports. However, regardless of the approach adopted, Origin stated that it regards transparency on how the costs and tariff(s) of existing and new capacity are determined to be critical to competitive access to monopoly pipelines.

In response to the comments, APTPPL submitted that the code requires an access arrangement for a covered pipeline—not the pipeline as it may subsequently be

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390 Energex, 'submission', p 9.

391 Origin, 'submission', p 5.

extended or expanded. It also argued that the timing, capacity, size and capital cost of expansions are unknown, implying that including them could distort investments and that it does not make speculative investments. It also asserted that under the code, an access arrangement does not automatically apply to future extensions or expansions of a covered pipeline.[392]

In contrast to Energex and Origin, TRUenergy submitted that it supports the services from expansions being provided as negotiated services, provided the regulator is satisfied that the dispute resolution procedures in the code will adequately address any disputes that arise.

In its submission QGC supported a public planning process to encourage optimal use of the existing pipeline and efficient investment, including in the pipeline, upstream and downstream industries. It further argued that the nominal capacity specified in the access arrangement information should reflect the expanded capacity (greater than 260 TJ/day) available on the mainline at its maximum allowable operating pressure (MAOP). The access arrangement should define the contracted capacity level up to which the reference tariff will be made available.

3.7.5 Draft decision

In its draft decision, the ACCC noted APTPPL's submission that the code requires an access arrangement for a covered pipeline rather than the pipeline as it may subsequently be extended or expanded. However, it also noted that the code does allow for the reference tariff to be determined taking into account forecast capital expenditure on extensions and expansions, and that s. 3.16 of the code requires an access arrangement to specify how an extension or expansion which is to be treated as part of the covered pipeline will affect the reference tariff.

In determining whether to accept APTPPL's proposal to subject future capacity expansions to commercial negotiation consideration was given to APTPPL's market power, users' countervailing power, APTPPL's requirement that future expansions would not occur unless capacity was fully contracted and the operation of the dispute resolution provisions of chapter 6 of the code. As has been noted in discussions with users, users have asserted that over the life of the RBP, APTPPL has leveraged its market power in tariff negotiations on capacity expansions. The possible consequences of this market power have been observed in some contracts considered in the Appendix D. However, it was noted that not all of the terms in the contracts considered were identical, suggesting that some countervailing power might also have been exercised.

It was also noted that users have not sought to use the code's dispute resolution provisions to negotiate terms for possible capacity expansions during the course of the past access arrangement period (s. 6.22). Users may have considered that the operation of the derogation meant that tariff terms were outside the scope of the ACCC's powers in relation to dispute resolution. The circumstances surrounding the past access arrangement period, however, have now changed.

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[392] Roma to Brisbane pipeline access arrangement APTPPL response to the ACCC issues paper, 4 July 2006, p. 2.

The draft decision noted that the Queensland Government derogation of the tariff elements has concluded. As a result, there should be no uncertainty about the ACCC's ability to arbitrate disputes in relation to access terms for expanded capacity. Nonetheless, it was acknowledged that commercial negotiation has been used successfully to expand the pipeline and this should not be dismissed lightly given that the code provides that commercial negotiation can be used to agree access terms.

On balance, APTPPL's proposal that the reference tariff apply to the existing capacity of the pipeline and that terms for additional capacity be established on a negotiated basis was accepted for the forthcoming access arrangement period.

Surcharges and capital contributions

Users raised the issue of whether APTPPL should be required to fund additional capacity through the use of capital contributions or surcharges. The code does not prevent a user agreeing to pay a capital contribution to APTPPL. Similarly, APTPPL's proposed access arrangement does not attempt to preclude the use of a surcharge or capital contribution. Accordingly, no amendment was considered appropriate or required for the RBP revised access arrangement.

New facilities investment

APTPPL stated that where an extension or expansion is covered, APTPPL can elect to provide access to that additional capacity as:

(a) part of the existing reference service

(b) as a separate reference service

(c) as a negotiated service.

The ACCC did not oppose APTPPL having these options, however, it noted that option (b) – a separate reference service cannot be introduced without following the s. 2 requirements of the code, including the need for public consultation.

The ACCC noted that while APTPPL had not specifically addressed a situation where a new facility is necessary to maintain the safety, integrity or contracted capacity of services, it does have the option of increasing the capital base in the next access arrangement period under s. 8.16(a)ii(C) of the code for such investment.

3.7.6 Submissions in response to the draft decision

APTPPL noted that the ACCC had not proposed any amendments in relation to the extensions and expansions policy. It noted that several of the amendments will address some of the issues raised by users and the ACCC in relation to extensions and expansions.

3.7.7 Final decision

No new evidence or arguments have been raised on this issue. The ACCC is satisfied that the policy accords with the requirements of s. 3.16 of the code.

3.8 Review of the access arrangement

3.8.1 Code requirements

Section 3.17 of the code requires an access arrangement to include a date when the service provider must submit revisions to the access arrangement (revisions submission date) and the date when the revisions are expected to take effect (revisions commencement date).

In deciding whether these two dates are appropriate, the regulator must consider the objectives contained in s. 8.1 of the code. Having done so, the regulator may require an amendment to the proposed access arrangement to include earlier or later dates. The regulator may also require that specific major events be defined as a trigger that would require the service provider to submit revisions before the revisions submission date (s. 3.17(ii)).

An access arrangement period accepted by the regulator may be of any duration. However, if the period is longer than five years, the regulator must consider whether mechanisms should be included to address the potential risk that forecasts, on which terms of the proposed access arrangement are based, could subsequently prove to be incorrect (s. 3.18 of the code). The code provides examples of such mechanisms for guidance:

- divergence of the service provider's profitability or the value of services reserved in contracts from a specified range
- changes to the type or mix of services provided.

The regulator could require a service provider to return to users some or all revenue or profits in excess of a certain amount.

3.8.2 Current access arrangement provisions

The access arrangement currently states that:

- the service provider will submit revisions to the access arrangement on 31 January 2006 (the revisions submission date);
- the revisions will commence on the later of 29 July 2006 (the revisions commencement date) and the date which the regulator's approval of the revisions takes effect.

3.8.3 APTPPL proposal

APTPPL has proposed that:

- it submit revisions to this access arrangement on or before 30 November 2010 (revisions submission date)
- those revisions start on 1 July 2011 (revisions commencement date).

Clause 2.3.6 of the proposed revised access arrangement states that:

> Where the term of a Reference Service Transportation Agreement extends beyond the Revisions Commencement Date, the tariffs applicable to the Service after the Revisions Commencement Date will be the Reference Tariff for a comparable Service under the then applicable Access Arrangement.

3.8.4 Submissions in response to the revised access arrangement

Origin believes that an undefined tariff reset after the term of the proposed access arrangement would be unacceptable (clause 2.3.6 of the proposed revised access arrangement). It considered that the proposed reset, coupled with a short five-year access arrangement period, serves to introduce significant uncertainty for market participants about the long-term cost of supplying end-use customers. In Origin's view this affects users or shippers servicing retail energy markets where much of the load is subject to a fixed regulated tariff. It would also affect higher levels of the gas supply chain where large fixed capital costs necessitate long-term fixed gas prices to underpin recovery of these costs.

Origin therefore proposed that the access arrangement period be extended to a minimum of 10 years or alternatively, to exempt all existing transport contracts from the tariff reset for the term of the individual gas transportation agreement(s).

Queensland Gas Company (QGC) stated that the potential introduction of a new gas source to the eastern Australia market has been proposed as sole option for a trigger price review (if and when the eastward gas flows exceed the forward haul rates). However, the underlying demand within the market will cause achievement of equivalent triggers.

In its submission, APTPPL argued that trigger events are more appropriate for an access arrangement with longer time frames and consequently greater uncertainty. It stated that this is clear from the context of ss. 3.17 and 3.18 of the code. APTPPL noted the RBP access arrangement revisions submission date in 2010 is only four years from the current expected start date for the forthcoming access arrangement period.

APTPPL stated that under its current configuration the RBP is effectively fully contracted until 2012. It is therefore reasonable to assume that the PNG pipeline will have no effect on the demand for reference services from the RBP before 2011.

APTPPL states that published plans of the PNG pipeline show it possibly connecting to Brisbane by way of two routes: Gladstone–Wallumbilla–Brisbane or Ballera/Moomba–Wallumbilla–Brisbane. If one or both of these routes eventuate, PNG gas will enter the Brisbane market through Wallumbilla and consequently, most likely through the RBP. APTPPL stated that it does not expect this to affect demand for RBP services before 2010.

APTPPL reiterated its view that a decision to proceed with the PNG pipeline is not an appropriate trigger event for the RBP access arrangement. The decision on whenever the PNG pipeline proceeds may be made in the next 12 months. In APTPPL's view, this will lead to a review of the access arrangement for little benefit and considerable cost.

APTPPL does not consider the commissioning of the PNG pipeline to be an appropriate trigger event. Based on published timeframes any decision to proceed with the PNG project in 2006–7 is unlikely to result in PNG gas into south-east Queensland before 2009–10. In this event it would seem as though the 30 November 2010 date in the access arrangement is an appropriate time to consider the effect of the PNG pipeline.

APTPPL stated that there are no other major specific events that should be trigger events for the RBP access arrangement. In its view, one of the factors underpinning incentive regulation is that it allows a sufficient period between regulatory reviews to allow infrastructure owners to seek out and enact efficiency gains before they are returned to users through the regulatory process. The existence of multiple trigger events is likely to shorten regulatory periods and remove incentives for efficiency.

3.8.5 Draft decision

In its draft decision, the ACCC noted that APTPPL proposed a five-year access arrangement period. If it had proposed a longer period, ACCC would have been obliged to consider possible trigger mechanisms. Accordingly, the threshold issue discussed in the draft decision was whether a five-year term was appropriate for the RBP.

Origin questioned the proposed length of the access arrangement period because of its concern with clause 2.3.6 of the proposed revised access arrangement. It suggested an extension of the access arrangement period to a minimum of 10 years or alternatively to exempt all existing transport contracts from the tariff reset (that is, the next access arrangement review) for the term of the individual gas transportation agreement(s) referred to in clause 2.3.6.

The arguments put forth by Origin did not support a longer access arrangement period. The regulator will approve a reference tariff for the RBP during the next revisions process (currently defined as being in five years time) under the requirements of the code giving particular consideration to the objectives of s. 8.1. During this process, Origin will be able to make submissions about the appropriate reference tariff or reference tariff principles at that time. The draft decision also noted that the approval of a clause in the access arrangement does not mean that it becomes a provision of an existing contract. An existing contract (and the charges in such a contract) will continue to apply unless the parties agree to vary it by, for example, adopting the wording of a particular clause.

In the ACCC's view, Origin appeared to have misconstrued clause 2.3.6. The ACCC understands clause 2.3.6 to mean that a reference service transportation agreement entered into under the access arrangement would provide, if its duration extended into the following access arrangement period, for the corresponding reference tariff to apply in the latter period. If this is the case, this provision would be reasonable.

The ACCC also considered whether there are any circumstances that point to a five-year term being too long for the RBP, particularly given that QGC sees the potential introduction of new gas sources to the eastern and western Australian markets in the next few years.

It noted that APTPPL has stated that under its current configuration the RBP is effectively fully contracted until 2012. It considered it to be reasonable to assume that

the PNG pipeline will not affect the demand for reference services from the RBP before 2011. Following this, consequently the ACCC considered it is reasonable to conclude that APTPPL believes that no other new potential gas sources will affect the RBP before the expiry of the proposed access arrangement period.

An independent report commissioned by the ACCC indicated that APTPPL's demand forecasts are reasonable over the next five years.[393] The ACCC was of the view that the relative certainty provided by these demand forecasts over the five-year access arrangement period is unlikely to distort investment decisions in pipeline transportation systems or in upstream and downstream industries (s. 8.1(d)). The tariff path proposed by the ACCC for the next five years should provide the service provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the reference service over the expected life of the assets used in delivering that service (s. 8.1(a)). It is also in accordance with the s. 8.1(e) objective to achieve efficiency in the level and structure of the reference tariff.

In the absence of compelling reasons to require either a trigger mechanism or a different access arrangement period, the ACCC accepted the proposed revisions submission and commencement dates.

3.8.6 Submissions in response to the draft decision

APTPPL

APTPPL noted that the ACCC did not propose any amendments in relation to review of the access arrangement. However, APTPPL has amended the proposed revisions submissions date to reflect the six month default assessment period under the code – that is, that the latest date on which APTPPL is to lodge proposed revisions to the access arrangement is four years and six months after commencement of the access arrangement period (such that the revisions commencement date is five years from commencement).

> APTPPL will submit revisions to this Access Arrangement on or before the date being 4 ½ years from the commencement date under section 1.5 of this Access Arrangement ("Revisions Submission Date"). Those revisions will commence on the later of 5 years from the Commencement Date of this Access Arrangement and the date on which the approval by the Regulator of the revisions takes effect under the Code ("Revisions Commencement Date").

3.8.7 Final decision

The ACCC notes that APTPPL has replaced its 30 November 2010 revisions submission date with the date being four years and six months after commencement of the revised access arrangement. Similarly, APTPPL has replaced its 1 July 2011 revisions commencement date.

The effect of this amendment is to re-establish an expected duration of five years for the forthcoming access arrangement period. The ACCC notes that while a five-year period was initially expected, the length of the current assessment process has impacted

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393 MMA, 26 June 2006.

on the term.[394] The ACCC considers, as discussed in its draft decision, that a five-year access arrangement period is appropriate for the RBP. Accordingly, it approves the amended revised revisions submission date and revisions commencement date.

[394] The amended wording of the clauses does not specify a date. While this means that the actual dates for the revisions submission and revisions commencement are presently unknown, once the forthcoming access arrangement period commences the dates will be calculable. The ACCC considers that the proposed framing of the revisions submission and commencement date satisfies the requirements of the code.

4. Key performance indicators

4.1 Code requirements

The code requires service providers to disclose key performance indicators (KPIs). Category 6 of attachment A of the code lists the following relevant items:

- industry KPIs used by the service provider to justify 'reasonably incurred' costs, and
- the service provider's KPIs for each pricing zone, service or category of asset.

4.2 APTPPL proposal

APTPPL submitted access arrangement information with the proposed revised access arrangement on 31 January 2006. In response to the ACCC's request to provide actual data supporting the benchmarking exercise APTPPL provided further information on 7 April 2006. It also provided a report prepared by Infrastructure and Regulation Services (IRS) as the source of the benchmarking measures adopted in the access arrangement information.[395] This report is available from the AER website.

APTPPL has noted the limitations of benchmarking but recognises that benchmarking can provide broad indications as to whether a pipeline's costs lie within the range of possible efficient costs.[396] It has also noted the peculiarities of the RBP including the degree of looping and increased level of easement management due to about 10 per cent of it passing through the built up areas of Brisbane.

APTPPL argued that indicators using pipeline throughput and capacity are generally invalid as throughput and capacity do not significantly affect operating costs. In its view the best indicators use either pipeline length or a replacement value, such as ORC. Accordingly, the benchmarks used by APTPPL were:

- non-capital costs per km of route length
- non-capital costs per km of pipeline length, and
- non-capital costs as a proportion of capital costs.

Table 4.2.1 presents the key data underpinning APTPPL's benchmarking exercise.

395 IRS, Non-capital cost benchmarking for the Roma to Brisbane pipeline, January 2006.

396 APTPPL,'Access arrangement information' p. 31.

Table 4.2.1: Benchmarking costs data provided by APTPPL

	Non-capital costs as per cent of ORC	Non-capital costs per kilometre ($)
GasNet System	4.27	17,701
Moomba to Adelaide Pipeline	2.41	15,262
Dampier to Bunbury Pipeline	2.18	21,677
Moomba to Sydney Pipeline	1.82	9,404
Goldfields Gas Pipeline	3.20	10,450
Roma to Brisbane Pipeline	2.05	16,715[(a)] - 9,691[(b)]

Source: APTPPL response to ACCC request for information, 7 April 2006.
a. Non–capital costs per route km.
b. Non–capital costs per pipeline km

APTPPL submitted that generally the RBP non-capital costs are in line with the industry standard. This view was based on its key findings that:

- the RBP performs moderately for non-capital costs per kilometre of pipeline route and performs favourably for non-capital costs per kilometres of pipeline in situ relative to its comparators, and
- non-capital costs as a percentage of ORC, at 2 per cent for the RBP, is lower than the level previously accepted by the ACCC for a fully compressed pipeline.[397]

In addition, based on its experience, APTPPL stated that generalised rules suggest that total pipeline expenses (excluding compressor costs) as a percentage of asset replacement costs are 1.5 per cent (for a large pipeline), 2 per cent (average pipeline) and 2.5 per cent (small pipeline).

4.3 Submissions in response to the revised access arrangement

The Queensland Gas Company (QGC) submitted that APTPPL's justification of non-capital costs by comparing it with ORC appears high and that the rule of thumb of cross checking or comparing the costs against the actual capital costs is the most appropriate (once adjusted for inflation).[398] It also noted that APT annual reports have indicated that nationwide operating costs are approximately 21 per cent of revenue and that this ratio should result in costs for RBP of about $6m per annum and not the proposed $9m.[399]

There were no other submissions on this issue.

397 APTPPL, 'Access arrangement information', p. 33.

398 QGC, 'submission', p. 14

399 ibid, para 5 comments on table 10 and s.6.4.1.

4.4 Draft decision

The ACCC recognised in its draft decision the limitations of KPI information as noted by APTPPL,[400] but considered that the information can still provide a useful guide in benchmarking operating performance across pipelines.

As noted by APTPPL, the ACCC has previously considered forecast operating cost as a percentage of overall capital costs and indicated that in the interests of comparison between pipeline systems, the ORC figure may be used as a measure of the capital base. It also recognised that forecast non-capital costs as a percentage of overall capital assets employed typically ranges from 2 per cent for an uncompressed pipeline to 5 per cent for a fully compressed pipeline.[401]

In the draft decision, the ACCC noted the report of APTPPL's consultant, Infrastructure and Regulation Services (IRS), which stated that many benchmarks use total capital investment as a proxy to account for cost differences associated with, for example, pipeline size, terrain, or number of compressors, and that ORC is generally used as a measure of capital investment.[402]

Previously, in its assessment of the MSP access arrangement the ACCC noted the extensive debate on the efficacy of different unit cost KPI measures. It also concurred with the service provider on the limitations of benchmarking measures given the traditional difficulties of 'normalising' pipelines. However, to elucidate the costs claimed by the MSP service provider the ACCC calculated additional KPIs for that regulatory decision and those indicators provided broad evidence in support of its concerns with the proposed non-capital costs.

The IRS analysis of non-capital cost benchmarking for the RBP considered the need to use meaningful metrics in conducting a benchmarking exercise and concluded that reporting non-capital costs against throughput or capacity can be quite misleading because the costs are not driven by throughput or capacity.[403] The ACCC noted that the varying degrees of available capacity, throughput and utilisation of Australian comparator pipelines tend to undermine the value of capacity or throughput based performance indicators in the absence of acceptable mechanisms of normalisation. Accordingly, the ACCC in its draft decision agreed that the benchmarks provided by APTPPL are appropriate performance indicators.

In regard to the QGC's comments on using actual capital costs, the ACCC commented in the draft decision that it had indicated previously that it considers the use of the ORC figure to be appropriate in establishing the capital base. It is a useful figure in benchmarking as it reflects the most efficient route and design of a replacement pipeline and would also take account of new technology. Given the differences in

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400 A further issue is that forecast costs (rather than actuals) are generally used in Australian pipeline benchmarking studies).

401 MAPS, Final decision:, p. 203.

402 IRS, Non-capital cost benchmarking for the Roma to Brisbane pipeline, January 2006, p. 4.

403 IRS, Non-capital cost benchmarking for the Roma to Brisbane pipeline, January 2006, p. 5.

pipelines and in particular the age of the original RBP, the use of the ORC figure is more appropriate than the actual capital costs of the RBP in a benchmarking exercise.

In response to QGC's comments on APT's nationwide operating costs, the ACCC noted that the benchmarking exercise will generally be more useful when the pipeline is compared with pipelines that are not owned by APT. Further, the comparator companies already include the MSP which is fully owned by APT and the Goldfields Gas Transmission Pipeline (GGT) which is 88 per cent owned by APT. However, the ACCC compared the approved forecast non-capital costs of the APT owned pipelines as a percentage of revenue for the current access arrangement period. The results indicated that non-capital costs as a percentage of revenue range from 27–31 per cent for the MSP; 15–23 per cent for the GGT, and 27–29 per cent for the RBP.[404] This suggested that the RBP costs are within the broad range of costs as a percentage of revenues for APT pipelines.

APTPPL has expressed costs in its access arrangement information in July 2006 dollars but is unclear whether all other pipelines costs have been expressed in the same dollars for the benchmarking exercise. The ACCC analysis indicates that this does not materially change the figures or rankings of the results presented by APTPPL.

In the draft decision, the ACCC accepted that a comparison with GasNet requires a proportion of VENCorp's operating costs to be considered as part of GasNet's non-capital costs. It accepted this approach in its final decision on revisions to GasNet's access arrangement.[405] In that instance, an annual cost of $620 000 to accommodate VENCorp's gas control function, as recommended by GasNet's consultant Cap Gemini, was added to the benchmark expenditure for GasNet. In contrast, IRS has included all VENCorp's gas related costs, which are approximately $16m a year. The ACCC identified this as being inappropriate as VENCorp performs a range of functions in the Victorian gas market beyond those undertaken in other states and territories. The ACCC recognises that the precise amount to be allocated to GasNet is not unambiguous and would require a detailed analysis. While such an analysis of this issue was not undertaken for the draft decision, it was noted that GasNet's reported costs set out in the table above would be approximately 40 per cent less if the only VENCorp costs included were for the gas control function.

In the draft decision, it was recognised that some costs are driven by pipeline length and therefore all pipelines cannot be compared on the basis of pipeline route kilometres. This is of particular relevance to the RBP as it is almost a completely looped pipeline. None of the other pipelines exhibit similar levels of looping. Although the RBP has the shortest route, when the looped component is added its length is more comparable to the length of the other pipelines included in the table above.

The ACCC commented that for the RBP it is reasonable to consider both pipeline route kilometres and pipeline in situ kilometre measures. Although the RBP's costs per route

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404 ACCC, MSP final decision, October 2003, pp. 156 and 204; ERA, GGT final decision, May 2005, pp. 82 and 90; and RBP Access arrangement information, January 2006, pp. 21 and 22.

405 ACCC, Final Decision GasNet Australia access arrangement revisions for the Principal Transmission System, 13 November 2002, p. 297.

kilometre are at the upper end of the range, comparing the costs per pipeline kilometre provides the opposite result. It recognised that looping may provide some cost benefits such as for common easement management. However, some cost items such as pigging and cathodic protection are driven by the length of the pipe.

Therefore, given the peculiarities of the RBP the ACCC concurred with APTPPL that a comparison of both measures will provide a range in which it would be reasonable to accept the composite measure to fall. Consideration of both distance based measures indicated that the RBP performs within an acceptable range in the distance-based benchmarks presented by APTPPL.

In the draft decision, the ACCC noted that APTPPL performs relatively well on non-capital costs as a percentage of ORC (2.05 per cent). This figure is near the bottom of the range of results in table 4.1 being above only the MSP. The draft decision recognised the difficulties associated with 'normalising' pipelines in undertaking a benchmarking exercise. However, it noted that the RBP could be considered most comparable with MAPS (based on the level of intensity of compression) or with the DBNGP (based on capacity utilisation). On the other hand, both MAPS and DBNGP do not exhibit the same level of looping as in the RBP. Further the ACCC noted that the difficulties which arise from differences in the terrain and geographical conditions associated with the pipeline route can also make 'normalising' of pipelines difficult.

The ORC for the RBP reflects recent substantial capital cost increases associated with pipeline construction and comparisons with pipelines whose capital bases were established in earlier years tend to show it in a more favourable light for that reason. The ACCC noted that benchmarking based on ORC as a denominator must be used with caution in circumstance where capital costs are escalating steeply. Nevertheless, it reiterated that the measure of costs as a proportion of ORC is a reasonable benchmark and it provides a broad indicator of operating efficiency.

The limitations of benchmarking studies given the inherent difficulties of comparing pipelines that exhibit different characteristics such as pipeline diameter, number of compressors, throughput, number of off-takes and different system operations was recognised in the draft decision. However, it noted that the three KPIs provided by APTPPL broadly support the conclusion that the proposed non-capital costs (as amended) are reasonable and comparable with those of a prudent service provider operating efficiently in accordance with the code.

4.5 Submissions in response to the draft decision

No submissions were received from interested parties on this issue. However, APTPPL's submission on the draft decision amendments in relation to non-capital costs makes reference to the ACCC's comments on the proposed KPI measures and APTPPL's relative performance.

APTPPL submitted that even with the management fee included in operating cost benchmarks, the RBP's operating costs are identified as being acceptable to good and that this is supporting evidence that the current RBP operating costs including the management fee are consistent with fees incurred by a prudent service provider, acting

efficiently, in accordance with efficient industry practice, as required by s. 8.37 of the code.[406]

4.6 Final decision

The ACCC has considered APTPPL's submission that components of its proposed non-capital costs should be assessed as complying with code principles as the ACCC identified related KPIs as being acceptable to good. The ACCC notes APTPPL's caveat in its access arrangement information that:

> It is important to recognise the limitations of benchmarking. The numerous variables that can and do affect costs means that benchmarking can only provide a broad indication of whether a particular pipeline costs lie within the range of possible efficient costs.[407]

The ACCC in its draft decision recognised the limitations of KPI information as noted by APTPPL but considered it to be a useful tool.

As noted by APTPPL and recognised by the ACCC the benchmarking exercise is meant only to be used as a broad indicator and guide. It was for this reason that the ACCC did not attempt to correct the error it identified in APTPPL's KPIs which greatly overstated GasNet's operating costs. Similarly, it did not attempt to normalise the reported information to take into account factors such as terrain, the timing of when the ORC valuation was carried out and APTPPL's classification of its claimed access arrangement costs ($0.5 m) as capital costs. Adjustment for these factors could adversely affect the RBP's perceived performance to a significant extent.

The wording of s. 8.37 does not suggest a top down approach to the assessment of non-capital costs. Such an approach was not proposed by APTPPL. Benchmarking may provide broad evidence but it does not supplant the assessment of specific costs by the regulator. Given the limitations, the fact that a pipeline may appear to perform relatively well in the benchmarking exercise does not mean that all the costs within its total non-capital costs would be consistent with the code requirements. If this was the case a clearly excessive cost item could be assessed as acceptable as long as the total costs were not high relative to those of the comparators in the benchmarking exercise. The ACCC's assessment of the Agility management fee is discussed in section 2.6.7 of this final decision document.

The ACCC, while recognising the limitations of benchmarking studies, reiterates its position stated in the draft decision – that the KPIs provided by APTPPL broadly support ,and are consistent with, the conclusion that the proposed non-capital costs (as amended) are reasonable and comparable with those of a prudent service provider operating efficiently in accordance with the code. However these broad indicators should not be given an elevated evidentiary value.

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406 APTPPL, 'Response to the Draft Decision', p. 32

407 APTPPL, 'Access arrangement information', p. 31

5. Decision

The ACCC has carefully considered APTPPL's proposals, submissions by interested parties and the current provisions of the access arrangement and explicitly commented on the issues and arguments raised where this has been considered appropriate.

The sometimes conflicting interests have been weighed in accordance with the principles set out in the code. In particular, the ACCC has been mindful of the requirement to take into account the factors set out in s.2.24 and where appropriate s.8.1. The considerations of these assessments are summarised in earlier sections of this final decision.

Pursuant to section 2.38(b)(ii) of the code, the ACCC has decided not to approve the proposed revised access arrangement for the RBP as amended by APTPPL in response to the draft decision in its present form. The reasons for this decision are provided earlier in this final decision document.

The amendments (or the nature of amendments, as appropriate) that would have to be made in order for the ACCC to approve the proposed revised access arrangement are identified in the relevant sections of this final decision document and are listed below. APTPPL must submit amended revisions to the ACCC by 9 February 2007.

Amendment 01

Before APTPPL's revised access arrangement for the RBP can be approved, the ICB must be set at $251.11m.

Amendment 02

Before APTPPL's revised access arrangement for the RBP can be approved, APTPPL must amend the rate of return estimates and associated parameters forming part of the access arrangement and access arrangement information to reflect the ACCC's estimates as set out in table 2.5.7.1 of this final decision. The calculation of reference tariffs must reflect these parameters.

Amendment 03

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement to include in the non-capital costs the wages and salaries costs as set out in table 2.6.7.2.

Amendment 04

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend its access arrangement by excluding the Agility management fee from its forecast non-capital costs.

Amendment 05

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must either exclude the costs of self-insurance from the non-capital costs or implement the following administrative arrangements for self-insurance:

- a board resolution to self-insure (i.e. a copy of the signed minutes recording the resolution made by the board)
- confirmation that APTPPL is in a position to undertake credibly self-insurance for those events
- self-insurance details setting out the specific risks which APTPPL has resolved to self-insure
- a report from an appropriately qualified actuary or risk specialist verifying the calculation of risks and corresponding insurance premiums
- ensuring that the cost of self-insurance is recorded as an operating expense in the audited and published income statement, and thereby deducted from the calculation of attributable profits
- ensuring that a self-insurance reserve (funded by self-insurance premiums charged in the income statement) is established in the audited and published balance sheet
- ensuring that when a claim against self-insurance is made, that an appropriate deduction to the self-insurance reserve is recorded.

Amendment 06

Before APTPPL's revised access arrangement can be approved, the reference tariff must be amended to the starting tariff of

- Capacity Reference Tariff = 0.3819 ($/GJ of MDQ / day)
- Throughput Reference Tariff = 0.0255 ($/GJ)

and thereafter increased annually by CPI-X where X = 0.79

Amendment 07

Before APTPPL's revised access arrangement can be approved, the words in section 4.1(c) need to be replaced with:

The Capital Base at the commencement of the subsequent Access Arrangement Period will be the Residual Value of $233.79m (in July 2006 dollars) adjusted to reflect actual rather than forecast new facilities investment, redundant capital and inflation as measured by the annual CPI.

Amendment 08

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend s. 68(b) to read the 'User agreeing to pay a reasonable charge (determined by APTPPL and the User) for the cost of transfer of the capacity. If the transfer does not proceed to completion, the User will only be liable for the legal and other costs associated with consideration of the request to transfer up until the time the user notifies APTPPL that it has decided not to proceed.'

Amendment 09

Before APTPPL's proposed revised access arrangement for the RBP can be approved, APTPPL must amend the proposed queuing policy to provide for separate queues for existing and developable capacity. APTPPL will maintain a

- a queue for requests for service that can be met from the existing or future uncontracted capacity of the existing pipeline (existing capacity queue); and

- a queue for requests for service that can be met by an increase in the capacity of the pipeline (developable capacity queue).

A prospective user can nominate which queue(s) a request for service should be allocated.

Appendix A: Submissions

The following interested parties provided submissions.

Pre draft decision

Organisation	Date received
APT Petroleum Pipelines Limited	18 May 2006
Energex (Sun Retail Pty Ltd)	18 May 2006
Queensland Gas Company	18 May 2006
TRUenergy Australia Pty Ltd	18 May 2006
Origin Energy	19 May 2006
APTPPL - comment on submissions to ACCC Issues Paper on the RBP Access Arrangement	4 July 2006

Post draft decision

Organisation	Date received
APT Petroleum Pipelines Limited	28 September 2006 & 10 October 2006
Origin Energy	17 November 2006
Energex (Sun Retail Pty Ltd)	17 November 2006
Incitec Pivot (confidential submission)	17 November 2006

Appendix B: Attachment A of the code

Information disclosure by a service provider to interested parties

Pursuant to section 2.7 the following categories of information must be included in the access arrangement information.

The specific items of information listed under each category are examples of the minimum disclosure requirements applicable to that category but, pursuant to sections 2.8 and 2.9, the relevant regulator may:

- allow some of the information disclosed to be categorised or aggregated; and
- not require some of the specific items of information to be disclosed

if in the relevant regulator's opinion it is necessary in order to ensure the disclosure of the information is not unduly harmful to the legitimate business interests of the service provider or a user or prospective user.

Category 1: Information Regarding Access & Pricing Principles

Tariff determination methodology
Cost allocation approach
Incentive structures

Category 2: Information Regarding Capital Costs

Asset values for each pricing zone, service or category of asset
Information as to asset valuation methodologies - historical cost or asset valuation
Assumptions on economic life of asset for depreciation
Depreciation
Accumulated depreciation
Committed capital works and capital investment
Description of nature and justification for planned capital investment
Rates of return - on equity and on debt
Capital structure - debt/equity split assumed
Equity returns assumed - variables used in derivation
Debt costs assumed - variables used in derivation

Category 3: Information Regarding Operations & Maintenance

Fixed versus variable costs
Cost allocation between zones, services or categories of asset & between regulated/unregulated
Wages & Salaries - by pricing zone, service or category of asset
Cost of services by others including rental equipment
Gas used in operations - unaccounted for gas to be separated from compressor fuel
Materials & supply
Property taxes

Category 4: Information Regarding Overheads & Marketing Costs

Total service provider costs at corporate level
Allocation of costs between regulated/unregulated segments
Allocation of costs between particular zones, services or categories of asset

Category 5: Information Regarding System Capacity & Volume Assumptions

Description of system capabilities
Map of piping system - pipe sizes, distances and maximum delivery capability
Average daily and peak demand at "city gates" defined by volume and pressure
Total annual volume delivered - existing term and expected future volumes
Annual volume across each pricing zone, service or category of asset
System load profile by month in each pricing zone, service or category of asset
Total number of customers in each pricing zone, service or category of asset

Category 6: Information Regarding Key Performance Indicators

Industry KPIs used by the service provider to justify "reasonably incurred" costs
Service provider's KPIs for each pricing zone, service or category of asset

Appendix C: Agility management fee - confidential

Appendix D: Section 8.10 - confidential