Final Decision

Access Arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System

Date: 12 September 2001

File Nos:	**Commissioners:**
CR99/53	Fels
C2000/269	Shogren
Application	Martin
No: GR9902	Jones

Contents

Abbreviations and glossary of terms ... iv

Executive Summary ... vii

1. Introduction ... 1

1.1 Consultative process and relevant documents ... 1
1.2 MAPS and the relevant regulatory framework ... 2
1.2.1 The Moomba to Adelaide Pipeline System ... 2
1.2.2 Regulatory framework ... 3
1.3 Criteria for assessing an access arrangement ... 4
1.4 The Commission's assessment process ... 5
1.5 Overview of the Commission's considerations ... 6
1.6 Period of the MAPS access arrangement ... 7
1.7 *Final Decision* ... 7

2. Reference tariff elements ... 9

2.1 Reference tariff methodology ... 9
2.2 The initial capital base ... 10
2.2.1 Code requirements ... 10
2.2.2 Epic's proposal ... 11
2.2.3 Commission's *Draft Decision* ... 14
2.2.4 Submissions from interested parties ... 15
2.2.5 Epic's response to submissions and *Draft Decision* ... 16
2.2.6 Commission's considerations ... 17
2.2.7 Conclusion ... 23
2.3 New facilities investment and capital redundancy ... 24
2.3.1 Code requirements ... 24
2.3.2 Epic's proposal ... 25
2.4 Depreciation of capital ... 26
2.4.1 Code requirements ... 26
2.4.2 Epic's proposal ... 26
2.4.3 Commission's *Draft Decision* ... 28
2.4.4 Submissions by interested parties ... 29
2.4.5 Epic's response to submissions and the *Draft Decision* ... 29
2.4.6 Commission's considerations ... 29
2.5 Rate of return ... 31
2.5.1 Code requirements ... 31
2.5.2 Epic's proposal ... 31
2.5.3 Commission's approach to calculating WACC ... 34
2.5.4 Commission's *Draft Decision* ... 35
2.5.5 Submissions from interested parties ... 35
2.5.6 Epic's response to submissions and the *Draft Decision* ... 36
2.5.7 Commission's considerations ... 37
2.6 Non-capital costs ... 55
2.6.1 Code requirements ... 55
2.6.2 Epic's proposal ... 56
2.6.3 Commission's *Draft Decision* ... 57

2.6.4 Submissions to the *Draft Decision* 58
2.6.5 Epic's response to submissions and the *Draft Decision* 58
2.6.6 Commission's considerations 58
2.7 Forecast revenue 59
2.7.1 Code requirements 59
2.7.2 Epic's original proposal 59
2.7.3 Commission's *Draft Decision* 60
2.7.4 Submissions by Epic 61
2.7.5 Commission's considerations 61
2.8 Cost allocation and tariff setting 63
2.8.1 Code requirements 63
2.8.2 Epic's original proposal 63
2.8.3 Commission's *Draft Decision* 64
2.8.4 Submissions from interested parties 64
2.8.5 Epic's response to submissions and *Draft Decision* 67
2.8.6 Commission's considerations 67
2.9 Tariff path and incentive structure 68
2.9.1 Tariff Path 68
2.9.2 Incentive Mechanism 70
2.9.3 Fixed Principle 71
2.10 Assessment of reference tariffs and reference tariff policy 72
2.10.1 Code requirements 72
2.10.2 Epic's proposal 73
2.10.3 Commission's considerations 73

3. Access policies, terms and conditions and review of the access arrangement 84

3.1 Services policy 84
3.1.1 Code requirements 84
3.1.2 Epic's proposal 85
3.1.3 Submissions by interested parties 86
3.1.4 Epic's response to submissions 92
3.1.5 Commission's considerations 95
3.2 Terms and conditions of service 109
3.2.1 Code requirements 109
3.2.2 Epic's proposal 109
3.2.3 Submissions by interested parties 113
3.2.4 Conclusion on Terms and Conditions 163
3.3 Capacity management policy 163
3.3.1 Code requirements 163
3.3.2 Epic's proposal 163
3.3.3 Submissions by interested parties 164
3.3.4 Commission's considerations 164
3.4 Trading policy 164
3.4.1 Code requirements 164
3.4.2 Epic's proposal 164
3.4.3 Submissions by interested parties 165
3.4.4 Epic's response to submissions 165
3.4.5 Commission's considerations 166
3.5 Extensions and expansions policy 167
3.5.1 Code requirements 167

3.5.2 Epic's proposal 167
3.5.3 Issues raised in the Commission's issues paper 168
3.5.4 Submissions by interested parties 168
3.5.5 Commission's considerations 170
3.6 Queuing Policy 176
3.6.1 Code requirements 176
3.6.2 Epic's proposal 176
3.6.3 Submissions by interested parties 176
3.6.4 Epic's response to alternative queue 181
3.6.5 Commission's considerations 186
3.7 Review and expiry of the access arrangement 194
3.7.1 Code requirements 194
3.7.2 Epic's proposal 195
3.7.3 Commission's Draft Decision 195
3.7.4 Submissions by interested parties and Epic's response 195
3.7.5 Commission's considerations 196

4. Information provision and performance indicators 197

4.1 Information provision 197
4.1.1 Code requirements 197
4.1.2 Epic's proposal 198
4.1.3 Commission's *Draft Decision* 199
4.1.4 Submissions from interested parties 199
4.1.5 Commission's considerations 199
4.2 Key performance indicators 200
4.2.1 Code requirements 200
4.2.2 Epic's proposal 200
4.2.3 Commission's Draft Decision 202
4.3 Financial indicator analysis 203

5. *Final decision* 205

Annexure 1 206

Public version of Annexure 2 209

Abbreviations and glossary of terms

ABDP	Amadeus Basin to Darwin Pipeline (Northern Territory)
ACCC	Australian Competition and Consumer Commission
AGL	The Australian Gas Light Company
AGLES&M	AGL Energy Sales & Marketing Limited
ANP	Australian National Power
ATO	Australian Taxation Office
BG	British Gas Transco or British Gas plc
CAPM	capital asset pricing model
Code	*National Third Party Access Code for Natural Gas Pipeline Systems*
Commission	Australian Competition and Consumer Commission
Covered pipeline	pipeline to which the provisions of the code apply
CPI	consumer price index
CCA	current cost accounting: an accounting framework in which the value of capital assets is maintained in real terms by the application of an index for changes in the general level of prices or in a specific range of prices
CW	Connell Wagner Pty Ltd
DAC	depreciated actual cost
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DEA	data envelopment analysis, referred to by TGT
DEI	Duke Energy International
DORC	depreciated optimised replacement cost
EAPL	East Australian Pipeline Limited, operator of the Moomba-Sydney Pipeline System prior to the June 2000 float of the Australian Pipeline Trust
EBB	electronic bulletin board
EGP	Eastern Gas Pipeline (Victoria/New South Wales)
Epic	Epic Energy South Australia Pty Ltd
ETSA	ETSA Power, acquired, since its submission was made, by a member company of the AGL group
GUF	gas unaccounted for
GJ	gigajoule
GPA	GPA Engineering Pty Ltd
GPAL or Law	both terms refer to *Gas Pipelines Access (South Australia) Law* or *Gas Pipelines Access Law*

GSN	Great Southern Energy Gas Networks Pty Limited
GST	goods and services tax
haulage	the term generally applied in this *Final Decision* to the service provided by the operator or owner of a gas pipeline transmission system. Also described in the industry as 'transmission' or 'transportation' of gas
ICB	initial capital base
imputation tax credit	the deduction from an Australian shareholder's personal tax liability that the shareholder can claim when an Australian company pays dividends from profits that have been subject to Australian corporate tax
IPART	Independent Pricing and Regulatory Tribunal, New South Wales
KPI	key performance indicator
kW	kilowatt (unit of power)
Law or GPAL	*Gas Pipelines Access (South Australia) Law* or *Gas Pipelines Access Law*
m	million
MAPS or MAP	Moomba to Adelaide Pipeline System
MDQ	maximum daily quantity
NGPAA 1995	*Natural Gas Pipelines Access Act (South Australia) 1995*
MHQ	maximum hourly quantity
MMC	Monopolies and Mergers Commission (Great Britain), now known as the 'Competition Commission'
MPa	megapascal (unit of pressure)
MRP	market risk premium
MSOR	market and system operations rules (Victoria)
MSPS	Moomba - Sydney Pipeline System
NAdb	NAdb Energy Services Pty Ltd
NGASA	Natural Gas Authority of South Australia
NPV	net present value
O&M	operating and maintenance (costs)
OEP	Office of Energy Policy (SA)
OFO	operational flow order
ORG	Office of the Regulator-General (Victoria)
Origin Energy	Origin Energy Limited, known as 'Boral Energy Limited' until February 2000, when it was publicly listed
p.a.	per annum
PASA	Pipelines Authority of South Australia, the operator of MAPS prior to Tenneco Energy and Epic Energy

PCQ	primary capacity quantity
PIRSA	Primary Industries and Resources SA
PJ	petajoule (equal to 1 000 000 GJ)
SA	South Australia
SAGEUG	South Australian Gas and Electricity Users Group
SAIPAR	South Australian Independent Pricing and Access Regulator
SCADA	supervisory communications and data acquisition (for monitoring and control of pipeline gas flows)
shipper	an alternative term generally used in this *Final Decision* to describe an existing user of MAPS
SPC	system primary capacity
SSC	system secondary capacity, a term used by Boral in its submission
STC	Stephen Timms Consulting Pty Ltd
TCF	trillion cubic feet (volume of gas)
Tenneco	Tenneco Gas Australia, which later became Tenneco Energy Australia and subsequently, Epic Energy
TFP	total factor productivity
TGT	Terra Gas Trader Pty Ltd, trading as 'Terra Gas trader'
TJ	terajoule (equal to 1 000 GJ)
TPA	in this *Final Decision*, refers to both Transmission Pipelines Australia Pty Ltd and Transmission Pipelines Australia (Assets) Pty Ltd
UAG	unaccounted-for gas
vanilla WACC	the nominal weighted average of the cost of equity and debt to the business before any adjustments for taxes and change in the general level of prices vanilla WACC = $E/V.R_e + D/V.R_d$ where R_e is the post-tax cost of equity determined by the CAPM formula; R_d is the pre-tax nominal cost of debt
Victorian Code	*Victorian Third Party Access Code for Natural Gas Pipeline Systems*
WACC	weighted average cost of capital

Executive Summary

Background

On 1 April 1999, Epic Energy South Australia Pty Limited (Epic) submitted to the Australian Competition and Consumer Commission an access arrangement for the Moomba to Adelaide Pipeline System (MAPS). It sought approval under section 2.2 of the *National Third Party Access Code for Natural Gas Pipelines Systems* (the Code).

The MAPS connects the Cooper Basin production and processing facilities, at Moomba, to markets for natural gas in Adelaide and in regional centres including Port Pirie, Whyalla and Berri. The regional centres are connected to the trunkline by laterals. Most of the demand for gas haulage services arises in the Adelaide area.

The access arrangement describes the terms and conditions on which third parties will gain access to the pipeline. The Commission's assessment involved public consultation and an examination of information provided by Epic and interested parties.

The Commission's assessment

The MAPS access arrangement needs to provide terms and conditions, including tariffs, that are reasonable to businesses and consumers, encourage efficient investment and provide a fair return to the service provider.

To achieve this, the Commission requires Epic to offer tariffs that are nearly ten per cent lower than those originally proposed. The tariffs proposed by Epic in its access arrangement are too high because Epic's capital base is overstated and the rate of return sought by Epic is not consistent with financial market benchmarks and the risks facing the pipeline.

The Commission has determined the capital base of the MAPS to be $353.3 million at 30 June 2001. This is higher than the capital base proposed in the *Draft Decision* owing to an increase in construction costs caused by exchange rate movements and inflation, and an increase in the maximum capacity of the pipeline to account for the recent expansion undertaken for National Power (now Pelican Point Power).

The Commission considered arguments by Epic that it should receive a higher risk premium to compensate for potential stranding risks. The Commission assessed the risk profile of the pipeline in some detail and determined a level of return appropriate for the risk profile.

The *Final Decision* provides for a post-tax return on equity of 12.6 per cent. This is less than the range of 13.1 to 16.8 per cent proposed by Epic. As a basis for comparison, the rate of return in the *Final Decision* is higher than average returns to superannuation funds and is consistent with returns on other regulated pipelines in Australia.

The Commission has received a substantial number of submissions in respect of the terms and conditions of service that Epic proposed in its access arrangement. It is the Commission's view that the terms and conditions proposed by Epic are too onerous and do not meet the requirements of the Code. The Commission requires amendments to the terms and conditions of service in order to redress the balance between the interests of the service provider and users.

In addition, the access arrangement incorporates an incentive scheme that would permit Epic to earn additional returns if it is able to sell services above a certain level. The Commission believes that this scheme offers upside for Epic.

The Commission believes that the amendments proposed in this *Final Decision* would ensure fair access and appropriate signals to parties involved in future negotiations involving the MAPS.

Table 1: *Final Decision* at a glance

Element	*Epic latest proposal*	*ACCC Final Decision*	*Page Ref.*
Optimised replacement cost (ORC)	$620m at 30 June 2000 (capacity of 393 TJ per day).	$625m at 30 June 2001 (capacity of 418 TJ per day).	p. 12
Depreciated optimised replacement cost (DORC) and initial capital base	$372m at 30 June 2000 (capacity of 393 TJ per day).	$353.3m at 30 June 2001 (capacity of 418 TJ per day).	p. 20
New facilities investment	Stay in business capital expenditure for the five year period, including expenditure of $2.6m in 2001.	The proposed capital expenditure forecast by Epic is likely to meet the criteria in section 8.16 of the Code. However, the Commission will review Epic's actual expenditure in the next access arrangement period.	p. 24
Rate of return	Return on equity between 13.1 and 16.8 per cent per annum.	Post-tax nominal cost of equity of 12.6 per cent.	p. 31
Non-capital costs	Epic aggregated forecasts of non-capital costs and historical costs to arrive at best estimates for this access arrangement period.	The operating, maintenance and other non-capital costs for the MAPS are reasonable.	p. 55
Forecast revenue	Proposed revenue of $52.5m for the full year ending 31 December 2001, equal to revenue under existing contracts.	Forecast revenue for the half year ending 31 December 2001 of $25.2m. (Full year equivalent for comparative purposes $50.3m).	p. 59

Initial tariff	Initial tariff determined by applying a system primary capacity of 323 TJ per day.	Initial tariff to be determined by applying a system primary capacity of 348 TJ per day.	p. 63
Cost allocation and tariff setting	Escalation factor of 95 per cent of the CPI to match the escalation factor in current contracts.	Accepts Epic's proposed escalation factor of 95 per cent of the CPI.	p. 63
Incentive structure	Rebateable IT service to provide incentive for Epic to maximise capacity.	Accepts Epic's rebateable IT service.	p. 70
Back haul and part haul tariffs	Epic proposed only a forward haul service.	Does not require back haul and part haul reference services to be offered at this time.	p. 84
Queuing policy	First come first served queuing policy.	First come first served queuing policy for developable capacity. For existing capacity, where there is excess demand capacity will be pro rated unless a prospective user disagrees, in which case a dispute resolution process will be undertaken.	p. 176
Extensions / expansions policy	Extensions and expansions not to be covered unless Epic elects otherwise. Epic proposed that extensions and expansions be priced on an incremental basis.	All expansions are covered unless Epic obtains the Commission's consent otherwise. Extensions are covered unless Epic, by notice to the Commission, elects otherwise. Accepts Epic's proposal that extensions and expansions be priced on an incremental basis.	p. 167
Terms and conditions		Requires Epic to adopt terms and conditions that provide a fair balance between the interests of users and the service provider.	p. 109

Key Issues

Significance of the *Final Decision*

As the MAPS is presently the only pipeline bringing gas into South Australia, it is important for South Australian consumers and businesses that third party access to capacity is provided at reasonable tariffs and on reasonable terms and conditions.

There is currently excess demand for gas in South Australia, and various proposals have been advanced to alleviate this situation, including the construction of a new pipeline from Victoria, and the possible augmentation of the existing MAPS. The access arrangement is an important benchmark for future negotiations involving the MAPS and provides an appropriate framework for industry to make efficient investment decisions to meet South Australia's demand for gas.

The access arrangement will expire on 1 January 2006. A revised access arrangement is to be submitted to the regulator on 1 July 2005.

Initial capital base

In this *Final Decision*, the Commission has calculated an ORC of $625m and a corresponding DORC of $353m as the initial capital base (ICB). This compares to the *Draft Decision* where the ORC was $527m and the ICB was $310m.

The ORC is higher in the *Final Decision* because:

- It has been calculated at 30 June 2001 instead of 30 June 2000.
- Costs have generally increased in line with exchange rate and CPI movements.
- The Commission has optimised the system to a higher capacity to take into account the recent expansion of the system for Pelican Point Power. Epic's tariffs are to be adjusted by dividing the revenue requirement by a higher volume to account for the increase in the system's capacity.

In addition, the DORC is higher in the *Final Decision* because the Commission has decided not to pursue the deferred tax liability adjustment to the ICB. This decision has been made on the basis of materiality and consistency issues. The ICB was reduced in the *Draft Decision* by $6m. The Commission's revised approach represents a small windfall gain to Epic.

The ORC of the pipeline system has been examined carefully by both Epic and the Commission. Epic's proposed ORC was subject to comment by interested parties and independent reviews by Worley and Associates and Venton and Associates. The Commission engaged Connell Wagner to evaluate Epic's calculations.

Epic submitted that a decline in the exchange rate since its original proposal would potentially add at least $55m to the ORC and $33 million to the DORC. To assess this claim the Commission contracted MicroAlloying International to investigate current pricing of high strength linepipe, a significant component of the total cost. The Commission incorporated the findings of the report in recalculating the ORC.

Rate of return

The *Final Decision* provides for a post-tax nominal return on equity of 12.6 per cent compared to 13.0 per cent in the *Draft Decision*. The return on equity is slightly lower owing to movements in the risk free rate. The underlying parameters used in calculating the return on equity have not changed.

Epic argued that the pipeline faced a significant risk of stranding in the future and it should be compensated through a higher asset beta. The Commission has undertaken a detailed assessment of Epic's risk of stranding and concluded that any such risks are low and already the subject of appropriate compensation.

The table below compares the returns given by the ACCC in recent decisions and those earned through super funds and the Australian stock market.

Table 2: Return on equity comparisons [a]

ACCC *Final Decision*, Oct-98	Victorian gas transmission pipeline systems	13.2
ACCC *Final Decision*, Jan-00	NSW & ACT electricity transmission (Transgrid & EnergyAustralia)	13.9
ACCC *Final Decision*, Jun-00	APT – Central West Pipeline	15.4
ACCC *Draft Decision*, Aug-00	Epic Energy – Moomba-Adelaide Pipeline System	13.0
ACCC *Draft Decision*, Dec-00	EAPL – Moomba-Sydney Pipeline System	13.0
ACCC *Final Decision*, Feb-01	SMHEA transmission (Snowy Mtns Hyrdro-Electric Authority)	11.2
ACCC *Draft Decision*, May-01	NT Gas – Amadeus Basin to Darwin	12.0
Australia – Super funds (Mercer survey, 30 June 2001)	Pooled superannuation funds – 3 year average return	8.9
Australian Stock Exchange (ASX Fact Book 2001)	Stock market 5 year average ROE – December 1995 to December 2000, (All Ords accumulation index)	11.5

a. Post-tax nominal.

Under the National Gas Code, Epic could achieve a higher return on equity through lower than forecast operations and maintenance costs and the sale of non-reference services.

Table 3: WACC estimates

	Per cent		
	EPIC proposal	**Commission** ***Draft Decision***	**Commission** ***Final Decision***
Nominal cost of equity	13.08-16.84	13.05	12.55
Nominal pre-tax cost of debt	7.2-7.5	7.30	6.81
Nominal vanilla WACC	n/a	9.60	9.10
Post-tax nominal WACC	6.85-8.78	8.04	7.58
Post-tax real WACC	4.24-6.13	4.85	5.25
Pre-tax nominal WACC	10.7-13.73	9.85	9.41
Pre-tax real WACC	8.0-10.95[(a)]	6.70[(b)]	7.14[(b)]
Pre-tax nominal WACC	n/a	9.94[(b)]	9.50[(b)]
Implied tax wedge	n/a	0.34	0.40

Source: access arrangement information, p. 34 and Commission analysis.

(a) Calculated using forward transformation formula $W_{tr} = (1+W_t)/(1+f)-1$

(b) Based on Commission's cash-flow analysis.

Non-capital costs

The Commission is satisfied that sufficient incentive lies with Epic to operate its compressors, and hence utilise system use gas (SUG) efficiently. Consequently, the party best placed to pay for SUG gas may be the one that is able to purchase gas at the lowest price. It is the Commission's understanding that the shippers may be in a better position to negotiate a favourable price for SUG than the pipeline operator. Therefore, the Commission accepts Epic's proposal that Epic's customers provide SUG for the operation of the MAPS.

Overall, the Commission considers that the forecast non-capital costs proposed by Epic are reasonable, when assessed against widely accepted industry benchmarks. Chapter 4 of this *Final Decision* discusses the use of key performance indicators (KPIs) and performance benchmarks in more detail. It concludes that, on the basis of the available information and based on the KPIs, the operating, maintenance and other non-capital costs for the MAPS are reasonable.

When it reviews the access arrangement, the Commission will consider whether the level of costs continues to be appropriate.

Forecast revenue

Table 4: Revenue requirement for the access arrangement period

Year ending 31 December	Epic proposal	*Draft Decision* ($m)	*Final Decision* ($m)
2001	52.5	46.3	25.2 (half year)
2002	53.9	47.0	51.4
2003	55.2	47.6	52.5
2004	56.3	48.3	53.6
2005	57.5	49.0	54.7

Notes:

(a) Epic proposed to extend the Access Arrangement period from 2003 to 2005 in its 2 March 2000 lodgement of its Access Arrangement. Epic did not however provide revenue forecasts for 2004 and 2005. The Commission has established forecasts for 2004 and 2005 by applying Epic's proposed revenue escalation formula (that is, 95 per cent of CPI), assuming inflation of 2.21 per cent.

Revenue in the *Final Decision* escalates more quickly because the Commission has accepted Epic's proposed escalation factor: 95 per cent of CPI to match the escalation factor in its current contracts. The NPV of the two revenue streams is equated by lowering revenue in the first year.

Capacity of the pipeline system

In its access arrangement Epic proposed a system primary capacity of 323 TJ per day. Several interested parties commented that this figure was too low. The Commission agrees that the system primary capacity is too low given the substantial discretion that Epic has to curtail FT services without incurring financial penalty. Epic has argued that the FT service is available 365 days of the year, subject only to force majeure events. This is not the case on examination of the terms of the access arrangement.

In order to redress this anomaly, the Commission considers that the terms of the access arrangement should be amended so that Epic would forfeit the capacity charge in respect of firm service that it curtails.

Epic has recently expanded the capacity of the MAPS to provide additional services for Pelican Point Power. The Commission considers that this additional capacity should be taken into account when determining the system primary capacity. Therefore, the Commission requires the system primary capacity to be set to 348 TJ per day.

Back haul and part haul tariffs/ trigger review

Given the potential for the construction of additional pipelines bringing gas into South Australia, several interested parties have expressed support for back haul and part haul tariffs. The Commission may require inclusion of back haul or part haul reference services if section 3.3 of the Code is satisfied. That is, if the service is likely to be sought by a significant part of the market.

The Commission at this stage can not conclusively state whether or not back haul and part haul services satisfy section 3.3 of the Code. Epic has indicated that it is not prepared to include back haul and part haul services as reference services at this time.

In the *Draft Decision* the Commission proposed that a major events trigger should be incorporated into the access arrangement. However, the concept received significant opposition from potential users. It was felt that the trigger did not provide sufficient certainty in respect of future tariffs to be of assistance in making investment decisions. Therefore, the Commission has decided not to include a trigger mechanism in the access arrangement.

Extensions and expansions policy

Epic proposed that expansions and extensions would not be covered unless it elected otherwise. Users and the Commission were concerned that this provision provided Epic with too much discretion and potentially allowed Epic to exercise market power in respect of expansions. The Commission has required Epic to amend its expansions policy so that all expansions are covered unless Epic obtains the Commission's consent otherwise.

Epic does not possess the same capability to exercise market power in respect of extensions, so the Commission accepts Epic's proposal for extensions to be covered unless Epic, by notice to the Commission, elects otherwise.

The *Final Decision* accepts Epic's proposal that extensions and expansions will be priced on an incremental basis. The Commission gave serious consideration to alternative methods of pricing expansions, especially roll-in.

Incremental pricing is preferred by market participants, largely because of the certainty it provides for future tariffs. However, incremental pricing creates an allocation problem because different tranches of capacity attract different tariffs. Users have a preference for the existing capacity at the reference tariff over the incremental capacity.

The allocation problem can be overcome if a roll-in approach is adopted. Under this approach, new investment would be rolled into the capital base and all users would pay the same price. As such, a particular user may see its tariffs change as new investment is added to the pipeline. Users were concerned with this approach because they felt that it distorted the investment decision of whether to augment the existing pipeline or build a new pipeline.

On balance the Commission considers that an incremental approach to expansions is preferable because:

- it does not distort economic incentives for expansion and new investment;
- a roll-in may not satisfy section 8.16(b) of the Code; and
- the allocation problem can be solved by other means as discussed below.

Queuing policy

As noted above, if an incremental costs approach to expansion is adopted, an allocation problem arises because existing capacity is cheaper than new capacity. The price of existing capacity is regulated and therefore market forces, which would allocate the capacity to whoever was prepared to pay the most for it, can not provide an allocation mechanism. The queuing policy must therefore do so.

Epic's proposed queuing policy was a first in first served queue. Several market participants raised considerable concerns in regard to such a queue. The Commission considers that in an environment of excess demand, such as for the MAPS, a first come first served queuing policy would not be able to allocate capacity in an efficient manner and satisfy the requirements of the Code.

Accordingly, the Commission considered a number of other alternative approaches, including pro rating demand, priority on the basis of public benefit, priority for foundation customers and an auction process.

While most of the alternatives considered have merit, it does not appear that any of the approaches are able to allocate existing capacity consistently within the requirements of the Code in all circumstances. As such, the Commission raised the possibility of having an open season with a dispute resolution process with potential users and Epic. This proposal received broad support from both Epic and potential users.

Subsequently, Epic submitted a revised queuing policy on 29 August 2001. This policy provided for two queues as follows:

- a first in first served queue for developable capacity; and
- for existing capacity, an open season with capacity being allocated on the basis of pro rata where there is excess demand. However, if a user does not agree with the pro rata a dispute resolution process will be conducted to allocate capacity.

While the Commission is concerned that there may be circumstances where a pro rata is not reasonable, the Commission accepts Epic's proposal as it provides for dispute resolution where pro rata is not reasonable.

The Commission considers that inclusion of a dispute resolution process is necessary. This is because it is imperative that the queuing policy provides sufficient flexibility to allow for the most effective outcome, given the particular circumstances at the time.

Accordingly the *Final Decision* requires Epic to incorporate its revised queuing policy of 29 August 2001, into the access arrangement.

Terms and Conditions

Receipt and delivery obligations of users

The access arrangement proposed by Epic placed stringent restrictions on users in relation to both the pressure and volume of gas deliveries permitted. Interested parties commented that these restrictions were too onerous, particularly the provisions relating to gas pressure in clause 12.4 of the access arrangement and those relating to volume in Schedule 2.

The Commission takes the view that it is unreasonable that users be subjected to onerous restrictions in relation to both volume and pressure on the MAPS. Given that it is essential that uniform pressures be maintained to preserve the integrity of the MAPS, users should have more flexibility as to volumes. Accordingly, the *Final Decision* requires the access arrangement to be amended to give users some flexibility at receipt points. In particular, users will not be required to supply exactly $1/24^{th}$ of

their scheduled daily receipt quantity each hour into the pipeline system. Instead, users will be limited to supplying 110 per cent of $1/24^{th}$ of the user's scheduled receipt quantity each hour.

National gas standard

Several interested parties commented on the possible introduction of a National Gas Standard. The *Final Decision* requires Epic to adopt the National Gas Standard if it becomes mandatory.

Non specification gas

The access arrangement proposed by Epic gives it stringent powers to deal with the entry of non-specification gas into the pipeline system. Despite comments from interested parties that these powers are too far-reaching, the *Final Decision* largely preserves Epic's powers, in order to allow Epic to maintain pipeline integrity. However, the *Final Decision* adjusts the liability and indemnity provisions in relation to non-specification gas to ensure that Epic exercises its powers reasonably and with due care.

Forecasting, nominating and scheduling of service

The access arrangement proposed by Epic contains rigid procedures which users must conform to when nominating for service. Despite comments by several interested parties as to the severity of these procedures, the Commission accepts the need for strict processes. In the absence of these processes, there would be potential for the contractual rights of users to conflict.

Imbalance procedures

The access arrangement proposed by Epic allows it to exact an excess imbalance charge on users whose deliveries of gas differ from their receipts by more than eight per cent. Interested parties commented that Epic's procedures for rectifying an imbalance are too harsh.

The Commission accepts the need for strong disciplinary measures in a multi-user environment. However, some adjustment is required to the measures proposed by Epic. The *Final Decision* requires Epic to amend the access arrangement to provide that users will only incur liability for any imbalance in respect of the period after they have been notified of the imbalance by Epic. The *Final Decision* otherwise preserves many of Epic's powers to address imbalances, but has adjusted the indemnity provisions of the access arrangement to ensure that Epic exercises its powers reasonably and with due care.

Flexibility between delivery points

In the access arrangement proposed by Epic, an FT user's maximum daily quantity (MDQ) is defined by reference to the sum of the user's primary capacity quantities (PCQs) at each delivery point. Interested parties submitted that this gave users insufficient flexibility to take capacity at different delivery points. The *Final Decision* accepts this definition of MDQ on the basis that the access arrangement permits a user

to access more than their PCQ at a delivery point. Under clause 18.3(c) of the access arrangement a user may obtain capacity at a delivery point in excess of their PCQ, up to the net available capacity of a delivery point.

Some interested parties considered that clause 18.3(c) gives too much flexibility to FT users and might permit them to hoard capacity at delivery points. The Commission is satisfied that the regime proposed by Epic strikes an adequate balance between the interests of IT and FT users. The imbalance provisions should ensure that FT users do not hoard capacity at particular delivery points.

Exclusivity Rights

The access arrangement proposed by Epic provides at clause 4.3(c)(ii) that an IT user will not be able to use a delivery point that is subject to existing haulage agreements (EHAs) without the agreement of either the existing user or the service provider. This clause protects the rights of existing users under section 15.14.1 of the EHAs, and gives existing users some scope to restrict third party access to some delivery points.

The *Final Decision* indicates that the Commission believes that section 15.14.1 is an exclusivity right, and as such may be overridden by the terms of the access arrangement. However, the Commission will allow clause 4.3(c)(ii) to remain in the access arrangement. The Commission believes that users whose access to a delivery point has been restricted under clause 4.3(c)(ii) may seek redress under Part IV of the *Trade Practices Act*, as well as s. 13 of the *Gas Pipelines (South Australia) Access Law*.

Final decision

Pursuant to section 2.16(b)(ii) of the Code, the Commission does not approve in its present form Epic's proposed access arrangement for the Moomba to Adelaide Pipeline System.

Pursuant to section 2.16(b)(ii) of the Code, the Commission requires Epic to resubmit a revised access arrangement by 30 November 2001.

The amendments (or, as appropriate, the nature of amendments) that would have to be made in order for the Commission to approve the proposed access arrangement are recorded in this *Final Decision*.

This document sets out the Commission's *Final Decision* on the revised access arrangement (version 29 June 2001). It does not address those provisions of the original access arrangement that have since been superseded or withdrawn.

Final Decision amendments

The Commission requires Epic to make the following amendments to its access arrangement. In formulating the amendments the Commission has considered Epic's most recent proposed access arrangement of 29 June 2001, and submissions by interested parties.

Amendment FDA2.1

For the access arrangement to be approved, the Commission requires the value of the initial capital base to be set to the value derived by the Commission, $353.3 million at 30 June 2001.

Amendment FDA2.2

For the access arrangement to be approved, the Commission requires that the working capital component not be included in the value of the capital base for the purpose of calculating Epic's capital charge (return on capital assets).

Amendment FDA2.3

For the access arrangement to be approved, the Commission requires:

- the WACC estimates and associated parameters forming part of the access arrangement to be amended to reflect the current financial market settings, by adopting the parameters set out by the Commission in Table 2.13 and Table 2.14; and
- the target revenues and forecast revenues to be based on these new parameters.

Amendment FDA2.4

For the access arrangement to be approved, the Commission requires Epic to amend the reference tariff proposed in Schedule 4 of the access arrangement. The amendment must have the effect that the FT tariff:

- is initially derived by applying the system primary capacity (as amended in Amendment FDA3.2) to the revenue figure set out in Table 2.18 in the 'COS revenue ACCC *Final Decision'* column. Subsequent tariffs must be calculated by applying the approved escalator of 95 per cent of CPI;
- comprises a capacity charge and a commodity charge set to the same proportion used in Epic's Access Arrangement Information of 11 September 2000.

Amendment FDA2.5

For the access arrangement to be approved, the Commission requires Epic to set the IT tariff to the FT tariff multiplied by 1.15. The resultant IT tariff will not include any capacity charge.

Amendment FDA3.1

For the access arrangement to be approved, the Commission requires Epic to insert the following wording into clause 24:

> Where an FT Service is curtailed, interrupted or discontinued pursuant to clause 24.1 the Service Provider will forfeit the proportion of any Capacity Charge for that Day equal to the amount of haulage service curtailed, interrupted or discontinued.

Amendment FDA3.2

For the access arrangement to be approved, the Commission requires Epic to include the National Power (now Pelican Point Power) expansion in the access arrangement.

The Commission requires Epic to amend clause 2.1 to include the Pelican Point Power expansion.

The Commission also requires Epic to amend clause 2.2 such that the System Primary Capacity of the Pipeline System includes the capacity of the Pelican Point Power expansion, that is 348 TJ per day. The Commission also requires clause 2 to be amended to take into account the eighth compressor at Wasleys.

The Commission also requires Epic to amend Schedule 1 to the access arrangement to take account of the Pelican Point Power expansion in the capacity of the Pipeline System. The Commission also requires Schedule 1 to be amended to take into account the eighth compressor at Wasleys.

The Commission also requires Epic to amend the Access Arrangement Information to take account of the Pelican Point Power expansion in the capacity of the Pipeline System. The Commission also requires the Access Arrangement Information to be amended to take into account the eighth compressor at Wasleys.

Amendment FDA3.3

For the access arrangement to be approved, the Commission requires that clause 6.7(b)(i) of the access arrangement be amended to read:

> it would not be technically or commercially reasonable for it to do so;

in order for clause 6.7(b)(i) to reflect the wording of section 3.10 of the Code.

Amendment FDA3.4

For the access arrangement to be approved, the Commission requires that the access arrangement be amended such that Epic is required to post its reasonable and prudent estimate of the following information on the EBB each day subject to a similar proviso to that in clause 18.5(c):

- daily forecast for following month of number of compressor units likely to be available on the MAPS; and
- daily forecast for following seven days of Net Available Capacity of the pipeline system.

Amendment FDA3.5

For the access arrangement to be approved, the Commission requires that Epic insert a provision into the access arrangement to provide that the service provider may, at its discretion, require a user to demonstrate that it has adequate insurance.

Amendment FDA3.6

For the access arrangement to be approved, the Commission requires that Epic amend clause (a)(i) of Schedule 2 to read as follows:

> (i) 110 per cent of 1/24th of the User's Scheduled Receipt Quantity at that Receipt Point.

Amendment FDA3.7

For the access arrangement to be approved, the Commission requires Epic to amend clause (a)(ii) of Schedule 2 to the access arrangement to read:

> Such greater proportion of the Scheduled Receipt Quantity at the Receipt Point as the Service Provider may, in its absolute discretion, approve.

Amendment FDA3.8

For the access arrangement to be approved, the Commission requires that clause 15.2 be amended to include the following provisions:

> If at any time during the Term uniform gas specifications for transmission pipelines are required by law, the Service Provider will adopt the uniform gas specifications, and they will apply in lieu of the Gas Specification.
>
> If at any time during the Term voluntary uniform gas specifications for transmission pipelines are introduced into the Australian Gas industry, the Service Provider may adopt the uniform gas specifications, in which case they will apply in lieu of the Gas Specification.

Amendment FDA3.9

For the access arrangement to be approved, the Commission requires that Epic amend clause 15.3(d) by adding the following provision:

> Provided that the service provider will not be indemnified to the extent that such losses, costs, damages and expenses result from its own negligence or default in complying with its obligations under the Agreement.

Amendment FDA3.10

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 15.3(b)(i) of the access arrangement:

> and will, as soon as it becomes aware that a User has introduced Non-Specification Gas into the Pipeline System, post a notice on the EBB notifying all Users of that fact.

Amendment FDA3.11

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 15 of the access arrangement:

> Where the Service Provider receives gas complying with the Gas Specification at the Receipt Point from all Users on a day but then supplies Non-Specification Gas at one or more Delivery Points, the Service Provider will indemnify the User from and against all losses, costs, damages or expenses that the Service Provider may suffer or incur as a result of the Non-Specification Gas entering the Pipeline System.

Amendment FDA3.12

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 17.3 of the access arrangement:

> The Service Provider will, on request by a User, provide on a monthly basis such information as is reasonably required to justify Epic's calculation of the figure indicated in clause 17.3(c)(i).

Amendment FDA3.13

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into the access arrangement:

> The Service Provider will calculate on a daily basis any discrepancy between the Total System Use Gas Quantity from the previous day and the amount of System Use Gas actually consumed (**System Use Gas Discrepancy**). The Service Provider will, as soon as practicable, balance its calculation of the Total System Use Gas Quantity to minimise the System Use Gas Discrepancy.

Amendment FDA3.14

For the access arrangement to be approved, the Commission requires Epic to amend clause 18 of the access arrangement by removing clause 18.4(e) and replacing it with a new provision detailing the procedures to be followed when written confirmation is not received. These procedures must include:

- provision for FT Users to confirm by telephone, facsimile, e-mail or in writing at a time later than 1730 hours;
- provision for Epic to accept such requests if it is reasonable and prudent to do so;
- provision that FT Service for which confirmation is given after 1730 hours be given a priority below FT Service, IT Service and Non-specified Services on the day; and
- provision for such Service to be provided on an interruptible basis.

Amendment FDA3.15

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.1 by deleting the term 'best endeavours' and substituting the term 'reasonable and prudent efforts'.

Amendment FDA3.16

For the access arrangement to be approved, the Commission requires Epic to amend the access arrangement to provide that if the Service Provider does not notify the User of

an Imbalance by 0900 hours on any day, then the service provider may not levy the Excess Imbalance Charge for that day.

Amendment FDA3.17

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.4 by deleting the phrase 'and if it is of such a nature' and replacing it with 'and if the conditions in clause 25.1(a)(i) are met'.

Amendment FDA3.18

For the access arrangement to be approved, the Commission requires Epic to amend clause 19.3(c) to provide that a User will not be held responsible and penalised for any Imbalance to the extent caused by the Service Provider.

Amendment FDA3.19

For the access arrangement to be approved, the Commission requires Epic to amend the final sentence of clause 19.4 to read:

> The Service Provider will not be liable for any losses, costs, damages or expenses that the User may suffer or incur as a result of curtailment, suspension, interruption, cessation or confiscation under this clause 19.4 unless, and to the extent which:
>
> (A) those losses, costs, damages or expenses resulted from measures taken by the Service Provider under clause 19.4 to correct an imbalance caused by the Service Provider; or
>
> (B) those losses, costs, damages or expenses resulted from the negligence of the Service Provider; or
>
> (C) those losses resulted from the Service Provider's failure to comply with its obligations under the Agreement.

Amendment FDA3.20

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.5 such that the User does not indemnify the Service Provider in respect of losses, costs, damages or expenses incurred due to Epic's negligence or by Epic's default in complying with its obligations under the Agreement.

Amendment FDA3.21

For the access arrangement to be approved, the Commission requires Epic to amend clause 19.7 of the access arrangement such that Epic will not charge for variations caused by Epic breaching its access contract with the User.

Amendment FDA3.22

For the access arrangement to be approved, the Commission requires Epic to insert a provision to provide for an alternative allocation procedure where parties taking delivery of gas at a Delivery Point agree to the allocation procedure. The parties will

provide the service provider with a copy of the agreement. If an agreement is not reached, Epic is to allocate deliveries to the parties at the Delivery Point pro rata, based on their respective nominations at the Delivery Point.

Amendment FDA3.23

For the access arrangement to be approved, the Commission requires Epic to insert a provision into the access arrangement requiring that where the Service Provider reduces a User's nomination under clause 23, the Service Provider must provide, on a reasonable request by a User, such information as is reasonably required to justify Epic's calculation of the reduction.

Amendment FDA3.24

For the access arrangement to be approved, the Commission requires Epic to replace the words 'the User' in clause 23.2(a) with the words 'all Users'.

Amendment FDA3.25

For the access arrangement to be approved, the Commission requires Epic to:

- Amend clause 24.3(a) by deleting after the word 'greater' the words 'or less'.
- Amend clause 24.6 as follows:

> The Service Provider will only be liable for any losses, costs, damages or expenses that the User may suffer or incur as a result of:
>
> (a) any curtailment, interruption or discontinuation invoked by the Service Provider under clause 24.1;
>
> (b) the User complying or failing to comply with a curtailment notice invoked by the Service Provider which was issued negligently or in breach of the Service Providers obligations under the Agreement;
>
> (c) any curtailment, interruption or discontinuation invoked by the Service Provider under clause 24.5 where the Service Provider has been negligent or has failed to comply with its obligations under the Agreement.

- Add to clause 24.2 the following clause:

> The Service Provider will, on reasonable request by a User, provide such information as is reasonably required to justify the issue of a curtailment notice.

Amendment FDA3.26

For the access arrangement to be approved, the Commission requires Epic to:

- Add to clause 27.1(b) the following:

> The Service Provider may amend the format and/or content of any forms from time to time as it considers appropriate as long as the obligations of the Service Provider are not significantly decreased or the obligations of the User are not significantly increased.

Amendment FDA3.27

For the access arrangement to be approved, the Commission requires that Epic delete from clause 28.1(a)(i) and 28.2(a)(i) the words 'as if it were its property'.

Amendment FDA3.28

For the access arrangement to be approved, the Commission requires that Epic must:

- Amend clause 34.1(a) as follows:

> For the purposes of this Agreement, 'Force Majeure' means any event or circumstance not within the control of a Party and which, by the exercise of due diligence, that Party is not reasonably able to prevent or overcome including (but not limited to) …

Amendment FDA3.29

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 36.4 as follows:

> The User may terminate the agreement and/or suspend its obligations under the agreement if the Service Provider…

- Add, after clause 36(b) the following clause:

> (c) fails to pay any amount due to the User and that amount, plus interest accrued at the Interest Rate plus 2 per cent per annum, is still outstanding 7 Days after the date of a notice of demand from the Service Provider.

Amendment FDA3.30

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 37.2(h) as follows:

> The Independent Expert will make a determination on the Dispute within a reasonable period and will determine what, if any, adjustments may be necessary between the Parties. The determination of Independent Expert will be final and binding upon the parties.

- Amend the second sentence in clause 37.2(h) as follows:

> The determination of the Independent Expert will, in the absence of manifest error, be final and binding upon the parties.

- Add, after clause 37.1(d), the following sentence:

> A party must take part in a dispute resolution process that has been initiated by another Party on reasonable grounds.

Amendment FDA3.31

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 40.1 as follows:

  > Subject to this agreement, a Party will have no right to be provided with any information that relates in any way to …

- Amend clause 40 by replacing the words 'User' and 'Service Provider' with the words 'a Party'.

Amendment FDA3.32

For the access arrangement to be approved, the Commission requires Epic to remove clause 26.6(a)(vi).

Amendment FDA3.33

For the access arrangement to be approved, the Commission requires that Epic amend clause 10.4(b) to the following:

> At the time it comes into operation, any New Facility, except for an extension to the Pipeline, is to be considered part of the Covered Pipeline, unless at that time the Regulator agrees that the New Facility should not be covered. Extensions will be part of the Covered Pipeline, unless the Service Provider, by notice to the Regulator (given before those facilities come into service) elects otherwise.

Amendment FDA3.34

For the access arrangement to be approved, the Commission requires Epic to replace clauses 10.1 – 10.3 of its 29 June 2001 access arrangements with clauses 10.1 to 10.7 of its proposal of 29 August 2001.

Amendment FDA3.35

Amendments to Epic's proposal of 29 August 2001

Notification of other disputes

For the access arrangement to be approved, the Commission requires Epic to add the following into clause 10.5:

> If a Prospective User notifies a dispute in relation to the Spare Capacity which was the subject of an Open Season before the negotiation and conciliation processes have been completed, the Relevant Regulator may consider, in accordance with section 6.3 of the Code, whether an alternative dispute resolution process would be appropriate.

Epic not to agree to allocate spare capacity outside of the queuing policy

For the access arrangement to be approved, the Commission requires Epic to add the following at the start of clause 10.1:

> Before the Service Provider agrees to allocate Spare Capacity it must undertake the Open Season process described in clause 10.3.

Qualification of clause 10.4(f)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.4(f) after the words ("Original Requests"):

> and only if the conditions in 10.4(d) have been satisfied.

Qualification of clause 10.5(c)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(c) after the words 'clause 8.1 will apply':

> at the close of the period referred to in 10.5(d).

Clarification of clause 10.5(f)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(f) after the words 'Spare Capacity':

> pursuant to the alternative dispute resolution process

Clarification of clause 10.5(h)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(h) after the words 'Spare Capacity':

> pursuant to the arbitration process

Amendment FDA3.36

For the access arrangement to be approved, the Commission requires Epic to add the following after clause 10.4(e) of Epic's proposal of 29 August 2001:

> Notwithstanding the above, the Service Provider must allocate capacity in accordance with a dispute resolution process undertaken under the *National Gas Pipelines Access Act (South Australia) 1995* and is not required to conduct an open season before contracting for that capacity.

Amendment FDA4.1

For the access arrangement to be approved, the Commission requires Epic to revise the access arrangement information so that it is consistent with the latest revised access arrangement (version 29 June 2001) and the amendments specified in this *Final Decision*.

1. Introduction

On 1 April 1999 the Commission received an application from Epic Energy South Australia Pty Limited (Epic) for approval of a proposed access arrangement for its Moomba to Adelaide Pipeline System (MAPS).

The MAPS is a gas transmission system owned and operated by Epic. The system connects the Cooper Basin production and processing facilities at Moomba to markets for natural gas in Adelaide and in regional centres including Port Pirie, Whyalla, and Angaston connected to the main pipeline via laterals. The maximum operating pressure of the MAPS is typically 7,322 kPa, except in certain locations. There are eight compressor stations along the length of the mainline. The Pipeline System is described in clause 2 of the access arrangement, and the system operating characteristics and parameters in Schedule 1.

The application was submitted under section 2.2 of the *National Third Party Access Code for Natural Gas Pipeline Systems* (Code). Epic lodged access arrangement information for the MAPS with its application. The access arrangement and access arrangement information describe the terms and conditions on which the company proposes to make available access to services over its Pipeline System.

1.1 Consultative process and relevant documents

The Code sets out the public consultation process applicable to the Commission as regulator. The Commission must:

- inform interested parties that it has received the access arrangement;
- after considering submissions received, issue a *Draft Decision* that either proposes to approve the access arrangement or proposes not to approve the access arrangement. The regulator must state the amendments (or the nature of the amendments) that have to be made to the access arrangement in order for the regulator to approve it. The regulator must seek submissions following release of the *Draft Decision*;
- after considering any additional submissions and a revised access arrangement (if submitted), issue a *Final Decision* that either approves or does not approve the access arrangement (or revised access arrangement) and states the amendments (or nature of the amendments) that have to be made to the access arrangement (or revised access arrangement) in order for the Commission to approve it; and
- if the amendments are satisfactorily incorporated in a revised access arrangement, issue a final approval. If not, the Commission must draft and approve its own access arrangement for the Pipeline System.

The process of reaching this *Final Decision* is summarised as follows:

- Epic lodged its original access arrangement (version 1 April 1999) and access arrangement information.
- Epic submitted revisions to the access arrangement on 16 July 1999.

- The Commission released an *Issues Paper* seeking submissions on the access arrangement on 6 September 1999.
- Public submissions on the *Issues Paper* were published on 15 November 1999.
- Epic provided responses to submissions on 14 December 1999 and 1 February 2000.
- Epic submitted corrections to the access arrangement on 13 January 2000.
- Epic submitted a revised access arrangement on 2 March 2000.
- Epic submitted further corrections to the access arrangement on 26 May 2000.
- The Commission issued its *Draft Decision* on 16 August 2000. In association with the release of the *Draft Decision* the Commission also carried out an extensive consultation process involving meetings with the service provider, industry players and interested parties.
- On 11 October 2000, the Commission exercised its powers under section 42 of the *Gas Pipelines Access Law* (GPAL) to disclose summaries of certain clauses in the existing haulage agreements between Epic and Origin Energy Pty Limited (Origin) and Terra Gas Trader Pty Limited (TGT).
- On 2 November 2000 the Commission conducted a pre-decision consultation forum in Adelaide. A Pre-decision Consultation Paper was issued by the Commission on 13 October 2000 in advance of the forum to provide an agenda for discussion on the day.
- In November 2000, staff from Epic and the Commission held discussions on the process of reaching a *Final Decision*. Epic agreed that it would submit a revised access arrangement in response to the *Draft Decision* and submissions. The Commission wrote to Epic on 5 December 2000 to provide additional guidance on some issues.
- Epic submitted a revised access arrangement on 17 May 2001.
- The Commission then sought additional submissions on the revised access arrangement and released an issues paper on 25 May 2001.
- Epic submitted a further revised access arrangement on 29 June 2001.

As can be seen, the process of reaching the *Final Decision* has been long. The Commission is concerned that the process has been delayed substantially at several points because Epic has not provided information in a timely manner.

1.2 MAPS and the relevant regulatory framework

1.2.1 The Moomba to Adelaide Pipeline System

The MAPS trunkline stretches 781km from north to south, and, at the time of lodgement of the proposed access arrangement, provided about 90 per cent of transmission pipeline capacity in South Australia. The pipeline was built by the South Australian Government in 1969, and was operated by the Pipelines Authority of South Australia (PASA) until 30 June 1995.

In 1995, the pipeline assets of PASA were sold to Tenneco Gas Australia, later to become Tenneco Energy Australia. In 1996, El Paso Energy, a US company, purchased the Australian assets of Tenneco Energy Australia. El Paso Energy later sold down its interest and Tenneco Energy Australia was renamed ‘Epic Energy’.

The ultimate shareholders in Epic are: El Paso Energy (30 per cent), Consolidated Natural Gas Company Inc (30 per cent), AMP Asset Management Australia Limited (10 per cent), Axiom Funds Management Limited (10 per cent), Hastings Funds Management Limited (10 per cent) and Allgas Energy Ltd (10 per cent).

The Epic Energy group of companies has operations in Western Australia, Queensland and South Australia. The group owns 3,300km of pipeline in Australia, and operates another 891km on behalf of other owners.

1.2.2 Regulatory framework

The main legislation and relevant documents regulating access to gas transmission services in South Australia are as follows:

- the *Gas Pipelines Access (South Australia) Act 1997*[1] which implemented access under the Code in South Australia and established template legislation nationally, known as the GPAL. The GPAL governs conduct of pipeline service providers and other interested parties in respect of access issues and regulatory, dispute resolution and administrative processes.
- the Code, which, amongst other things, provides avenues for transmission service providers to submit access arrangements to the Commission for approval. Pipelines covered by the Code when it was implemented are obliged to lodge access arrangements. The MAPS is one such ‘covered pipeline’. Until the MAPS Code access arrangement comes into effect, an access arrangement prepared under the repealed *Natural Gas Pipelines Access Act 1995* (SA) will continue to apply to the MAPS.

Code and appeals bodies in South Australia with respect to transmission pipelines are:

- the Commission – regulator and arbitrator; [2]
- the National Competition Council – coverage advisory body;
- the Minister for Minerals and Energy (SA) – coverage decision-maker for intrastate pipelines;
- the Gas Review Board (SA) – administrative review of decisions by the SA Minister;
- the Federal Court – judicial review body; and
- the Australian Competition Tribunal – merits review body.

The South Australian Independent Pricing and Access Regulator (SAIPAR) is regulator and arbitrator in South Australia with respect to distribution (reticulation) pipelines.

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1 South Australia acted as lead legislator for the national gas access legislation.

2 The Commission is also regulator and arbitrator with respect to transmission pipelines in the other States and Territories with the exception of Western Australia.

1.3 Criteria for assessing an access arrangement

The Commission may approve a proposed access arrangement only if it is satisfied that it contains the elements and satisfies the principles set out in sections 3.1 to 3.20 of the Code. Those principles are summarised below. The regulator can not reject a proposed access arrangement on the basis that the arrangement does not address a matter that section 3 of the Code does not require it to address. Otherwise, the Commission has broad discretion within the terms of the Code in approving an access arrangement.

An access arrangement must include a policy on the service or services to be offered, which includes a description of the service(s) to be offered. The policy must include one or more services that are likely to be sought by a significant part of the market and any service(s) that, in the Commission's opinion, should be included in the policy. To the extent practicable and reasonable, users and prospective users must be able to obtain those portions of the service(s) that they require, and the policy must allow for a separate tariff for an element of a service so requested.

An access arrangement must contain one or more reference tariffs. A reference tariff operates as a benchmark for negotiation of terms of supply of a particular service and provides users with a right of access to the specific service at that tariff. The reference tariff will apply in the event an access dispute goes to arbitration. Reference tariffs must be determined according to the principles in section 8 of the Code.

An access arrangement must include the following elements:

- 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/expansions policy to determine the treatment under the Code of an extension or expansion of a pipeline;
- 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 an access arrangement complies with the Code, the regulator must (pursuant to section 2 of the Code) take into account:

- 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 Commission considers are relevant.

1.4 The Commission's assessment process

This *Final Decision* assesses the revised access arrangement submitted by Epic on 29 June 2001. As such, the *Final Decision* does not detail all amendments that would be required to translate Epic's original proposed access arrangement of 1 April 1999 into the revised access arrangement.

The Commission received numerous submissions from interested parties in response to the revised access arrangement submitted to the Commission by Epic following the Commission's *Draft Decision*. Epic made several submissions to the Commission in response to issues raised by other interested parties. The Commission has evaluated the most recent access arrangement submitted by Epic, on 29 June 2001, in the light of submissions both by Epic, and by interested parties. In particular, the Commission has addressed concerns raised by users and potential users that the terms of the access arrangement are too favourable to the service provider.

In this *Final Decision* the Commission has balanced the interests of Epic and those of users and potential users. On the one hand, the Commission must consider that its principal role as a regulator of gas pipelines is to mitigate the effects of market power, where it arises in gas transportation markets. In this role, the Commission must consider that the tariffs and terms of service offered by a covered pipeline owner may well differ substantially from what would be offered in a competitive market.

On the other hand, the Commission must provide a fair return to the service provider. The Commission also considers that the returns to the service provider must be adequate to attract investment in new pipeline projects into South Australia.

In making its decision the Commission must also consider the requirements of the Code and other relevant legislation.

The *Final Decision* revisits several issues initially raised in the *Draft Decision*, particularly the amendments which the Commission suggested Epic make to the access arrangement. In respect of some of these proposed amendments, the Commission is satisfied with Epic's response; in others, changed circumstances mean that the amendment proposed is no longer necessary. However, the Commission considers that some of the proposed amendments which Epic has not adequately dealt with in its revised access arrangement are of a fundamental nature; accordingly the Commission requires Epic to address these amendments before the access arrangement is approved.

In addition to amendments from the *Draft Decision*, the *Final Decision* contains further proposed amendments, some of which arise from submissions by interested parties since the *Draft Decision*.

Epic will need to comply with the amendments proposed in the *Final Decision* for its access arrangement to be approved. To do so, Epic must submit a revised access

arrangement to the Commission under sections 2.18 and 2.19 of the Code. If Epic does not submit a revised access arrangement by the required date, or does so and the regulator is not satisfied that it incorporates amendments specified in the *Final Decision*, the regulator must draft and approve its own access arrangement (section 2.20). Such a decision is subject to review on its merits by the Australian Competition Tribunal.

1.5 Overview of the Commission's considerations

In its *Final Decision*, the Commission has adjusted the Optimised Replacement Cost (ORC) of the pipeline to take into account the extension undertaken for National Power (now Pelican Point Power). The Commission has also moved away from a deferred tax liability approach, and calculated a slightly lower return on equity.

The Commission has required Epic to make significant revisions to its extensions/expansions policy. In the light of criticisms from users of the recent queuing policy submitted by Epic, the Commission has suggested revisions to this aspect of the access arrangement as well.

One of the most significant issues unresolved in the *Draft Decision* was the issue of the capacity of the MAPS. The service provider and users submitted widely differing estimates of the capacity of the MAPS. In arriving at its *Final Decision*, the Commission has given consideration to the details of the quality of service offered by Epic, and its relationship to the firm capacity of the MAPS. The Commission has also considered the impact on capacity of the extension of the MAPS carried out by Epic for Pelican Point Power. The firm capacity of the Pipeline System is an important issue for users, given that demand for gas in South Australia considerably exceeds supply at present.

The *Final Decision* also addresses the issue of whether the access arrangement gives users sufficient flexibility in scheduling gas deliveries. This issue arises particularly in the context of clauses dealing with scheduling and nomination; the ability of users to switch between delivery points; and the capacity to trade imbalances. In arriving at its *Final Decision* the Commission has weighed the desirability of flexibility against the consideration that too much flexibility might lead to conflicting contractual rights.

The Commission has made several adjustments to clauses of the access arrangement detailing the liability and indemnity of users and the service provider to each other, and to third parties. The Commission considers that some of the clauses of the access arrangement submitted were too favourable to the service provider in this regard. The Commission has adjusted the relevant clauses in accordance with the general principle that the service provider and users should each be liable in respect of situations over which they are able to exercise substantial control.

The Commission has made adjustments to clauses dealing with the preservation of the integrity of the Pipeline System, particularly the clauses dealing with imbalances and with gas quality. In relation to these clauses, the Commission takes the view that firm disciplinary measures are appropriate to preserve pipeline integrity. However, the service provider should be obligated to act reasonably and with due care when it takes steps to enforce such disciplinary measures.

The Commission has also suggested amendments to provisions of the access arrangement that are of a more minor nature. In regard to these matters, the Commission takes the view that the wording of many of the terms and conditions of the access arrangement may have a significant impact on users, and it is appropriate for a regulator to address their concerns, including those that may appear to be minor in scope.

1.6 Period of the MAPS access arrangement

Section 2 of the Code requires the service provider to submit a proposed access arrangement (and associated access arrangement information) to the regulator for approval. The service provider is defined in the GPAL (section 2) as 'in relation to a pipeline or proposed pipeline, the person who is, or is to be, the owner or operator of the whole or any part of the pipeline or proposed pipeline'. Epic currently owns the MAPS. The access arrangement provides for ownership of the MAPS to change over time.[3] The Commission expects that it would be notified of any change in ownership or operation of the MAPS as those changes occur.

Epic proposed that it would submit revisions to the access arrangement to the Relevant Regulator on 1 July 2005, and that these revisions would commence operation on 1 January 2006. Accordingly, the access arrangement in its current form is to run until 31 December 2005, which is also the termination date of Epic's main contracts with existing users of the MAPS.

The Commission's current assessment process relates to the initial access arrangement period. However, it will also impact on subsequent access arrangement periods, notably by determining the initial capital base, which, with adjustments to reflect additions and depreciation during the initial period, sets the capital base for the next period. Although Epic has argued that determination of the capital base should be deferred until the second period, the Code does not give the Commission discretion to do so.

1.7 *Final Decision*

The Commission has now made a *Final Decision* under section 2.16(b)(ii) of the Code that it proposes not to approve the proposed MAPS access arrangement. In order for the Commission to approve a revised access arrangement under section 2.19, the Commission will have to be satisfied that the amendments specified in this *Final Decision* are incorporated in a revised document. Epic must submit a revised access arrangement by 30 November 2001. Pursuant to section 2.16(b)(ii), the proposed amendments are set out in the relevant sections of the *Final Decision* and are brought together in the Executive Summary.

The remainder of this *Final Decision* sets out the Commission's analysis of:

- the determination of reference tariffs (chapter 2);

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3 access arrangement, clause 38.1.

- the non-tariff elements of service, that is, the service provider's proposed access policies, terms and conditions of service and arrangements for review of the access arrangement (chapter 3); and
- information provision and performance indicators (chapter 4).

Chapter 5 re-states the Commission's *Final Decision* on the basis of the analysis preceding that chapter.

2. Reference tariff elements

The Code specifies a set of elements that an access arrangement must include. This chapter considers Epic's compliance with the principles to be followed in determining the reference tariff. Specifically, the chapter covers the calculation of Epic's revenue requirement, including the weighted average cost of capital (WACC), depreciation and capital base. Chapters 3 and 4 discuss Epic's compliance with the remaining elements of an access arrangement.

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 other services for which the Commission 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 section 8 of the Code.

In addition to the access arrangement and access arrangement information, Epic has provided the Commission with confidential data such as volumes, revenues and costs, that it used to derive its proposed reference tariff. Aggregates have been publicly disclosed by Epic in the access arrangement information.

2.1 Reference tariff methodology

Section 8 of the Code sets out the general principles for a reference tariff and certain factors about which the relevant regulator must be satisfied before the regulator may approve reference tariffs and the reference tariff policy. The general principles are contained in sections 8.1 and 8.2 of the Code.

Section 8.4 of the Code permits a choice of three methodologies for determining the total revenue:

- Cost of service: total revenue is set to recover costs. These costs are calculated on the basis of a rate of return on:
  - the value of the capital assets that form the covered pipeline (termed the 'capital base'):
  - depreciation of the capital base; and
  - the operating, maintenance and other non-capital costs (collectively termed 'non-capital costs') incurred in providing all services over the covered pipeline.

  The rate of return is set to provide a return commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service (sections 8.30 and 8.31 of the Code).

- IRR: total revenue is set to provide an internal rate of return (IRR) for the covered pipeline on the basis of forecast costs and sales, subject to the principles set out in sections 8.30 and 8.31 of the Code.
- NPV: total revenue is set to deliver a net present value (NPV) for the covered pipeline (on the basis of forecast costs and sales) equal to zero, using a discount rate that would yield a return consistent with sections 8.30 and 8.31 of the Code.

While these methodologies are different ways of assessing the total revenue, their outcomes should be consistent. For example, it is possible to express any NPV calculation in terms of a cost of service calculation by the choice of an appropriate depreciation schedule. In addition, other methodologies (such as a method that provides a real rate of return on an inflation-indexed capital base) are acceptable under section 8.5 of the Code, provided they can be translated into one of these forms.

Epic proposed a cost of service methodology. This methodology is consistent with the Code.

Epic at present has haulage arrangements with three shippers and has advised the Commission that there is no firm capacity available in the pipeline for third party access (see discussion of spare capacity in chapter 3). Consequently, applications for access to the pipeline may involve parties making a capital contribution for new facilities.

Epic proposed a reference tariff that would equate reference service revenues to current contractual revenues (which it submitted are less than its total cost of service requirement). According to Epic, at this tariff level new users would pay the same capital contribution as existing customers.[4] Epic stated that it is not requesting the higher tariffs it would need to recover its total cost of service requirement.

2.2 The initial capital base

2.2.1 Code requirements

The Code requires the regulator to approve a value for an existing pipeline (an initial capital base) as part of the first access arrangement for that pipeline. This value carries over into subsequent access arrangement periods, subject to deduction of depreciation and redundant capital and addition of new facilities investment.

The principles for establishing the initial capital base of a pipeline system are set out in section 8 of the Code. These principles distinguish between pipeline systems that come into existence after the commencement of the Code (sections 8.12 and 8.13) and those that were in existence at the commencement of the Code (sections 8.10 and 8.11).

The initial capital base – existing pipelines

For existing pipelines, the Code states (section 8.11) that the value of the initial capital base normally should not fall outside the range of depreciated actual cost (DAC) and

[4] Access arrangement information, p. 10.

depreciated optimised replacement cost (DORC). In establishing the initial capital base, section 8.10 requires the regulator to consider:

- other well recognised asset valuation methodologies (section 8.10(c)) and the advantages and disadvantages of those methodologies (section 8.10(d));
- international best practice of pipelines and the impact on the international competitiveness of energy consuming industries (section 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 (section 8.10(f));
- the reasonable expectations of persons under the regulatory regime that applied to the pipeline prior to the commencement of the Code (section 8.10(g));
- the impact on the economically efficient utilisation of gas resources (section 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) (section 8.10(i));
- the price paid for any asset recently purchased by the service provider and the circumstances of that purchase (section 8.10(j)); and
- any other matters considered relevant (section 8.10(k)).

General principles

In addition, the Commission is guided by the objectives for the design of a reference tariff and reference tariff policy outlined in section 8.1 of the Code. These objectives are:

> (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.

2.2.2 Epic's proposal

Epic evaluated the initial capital base using the depreciated optimised replacement cost (DORC) methodology. Epic stated that it had also considered the replacement value and book value of its capital assets.

ORC and DORC

Epic originally calculated a DORC of $353.5m at 31 December 1998. This was based on a capacity of 393 TJ per day. The pipeline has subsequently been expanded to 418 TJ per day.

In estimating the ORC, Epic stated that it made the following assumptions: [5]

- the best available technology of the day has been utilised for a 'fit for purpose' standard, not gold-plated or sub-standard;
- each line segment and facility is optimised for the flow at today's current contracted capacities, using standard sizing;
- the construction is a 'brownfields' construction, using the existing route but recognising that route conditions of today rather than at the time of first construction would apply;
- the costs of possible Native Title compensation and interest on capital during construction were considered; and
- Epic did not include any allowance for facilities to provide the service provider with greater control over customers' actions.

Epic based its ORC calculation on the parameters in Table 2.1.[6]

Table 2.1: Parameters for Epic's ORC calculation

Receipt point pressure	6300 kPa
Maximum capacity	393 TJ per day
Firm capacity	323 TJ per day
Geographic extent of system	As per current
Market size and location	As per current

[5] Access arrangement information, p. 23.
[6] Access arrangement information, pp. 11, 23.

The four options in Table 2.2 were priced to provide capacity and redundancy similar to that for the existing system: [7]

Table 2.2: Epic's ORC options

Option A	The existing 559 mm diameter pipeline at 7.3 Mpa	$643 million
Option B	559 mm diameter pipeline at 15 Mpa	$572 million[8]
Option C	864 mm diameter, free flow pipeline	$726 million
Option D	610 mm diameter pipeline at 10 Mpa	$598 million

Source: Epic, consolidated response to Commission letter 30 April 1999, p. 3.

Epic selected Option B as the ORC valuation on the basis that it represents the 'lowest initial capital cost'.[9]

For the purposes of evaluating DORC, Epic depreciated the pipeline system as a whole, assuming that the pipeline has a total life of 77 years, a total of 29 years service had expired at the time of valuation.

Epic's resulting DORC valuation of the initial capital base was $353.5 million (at 31 December 1998).

Connell Wagner audit of initial capital base

On behalf of the Commission, Connell Wagner Pty Ltd (Connell Wagner) undertook a desktop audit of Epic's original DORC valuation for the MAPS. In summary, Connell Wagner found that:

- Unit costs for the pipeline should be $19,350 per inch kilometre (up to 10.21MPa) and $21,250 (up to 15.0MPa) compared to Epic's $22,000 per inch kilometre (up to 15MPa).
- To determine the optimum ORC, Connell Wagner's assessment took into account initial capital cost and NPV calculation of the costs of operating the system. It arrived at a value of $539 million compared to Epic's valuation of $570 million.
- The laterals should be optimised to ensure that the optimal size and class of pipe is considered.
- Epic had not considered an 18-21 MPa pressure rated pipeline option for evaluation.
- Disaggregating the pipeline system for depreciation by asset class offers a more transparent and robust process. Epic's approach of applying depreciation to the

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7 Refer access arrangement information, p. 30. The dollar values quoted here are directly from the document lodged by Epic on 1 April 1999, without adjustment for change in the general level of prices since then. Adjustments of this nature are made later in this chapter.

8 While Epic stated this value in the access arrangement information at pp. 11-12 and 30 of the access arrangement information, Epic in fact reduced the amount to $570.1m by taking out amounts budgeted for expenditure on gas quality monitoring and remote valves in a later year.

9 Epic letter to Commission, 11 April 2000.

entire asset value for the system as a whole and assuming a total asset life of 77 years, could overstate the DORC asset valuation by as much as 21 per cent.

Without further information and study of the MAPS, the order of accuracy of Connell Wagner's estimates was +/- 25 per cent.

Epic's response to the Connell Wagner report

In response to the Connell Wagner draft report Epic commissioned Stephen Timms Consulting Pty Ltd ('Stephen Timms Consulting' or 'STC') to review the findings of the report. Epic provided the Commission with a copy of the STC review.[10] Epic's response can be summarised as follows:

- The unit costs proposed by Connell Wagner are not reflective of current costs.
- Epic rejected Connell Wagner's suggestion that it should consider as an option a pipeline rated at 18-21 MPa pressure.
- Although not optimised, the laterals need to be the same pressure rating as the optimised pressure rating for the mainline, or else there would need to be pressure-limiting facilities at the inlet of each lateral.
- Epic did not agree that depreciating the ORC by asset class provides a more transparent and robust process. Rather, according to Epic, the requirement of the DORC process to arbitrarily select asset lives can have a dramatic impact on the value of the asset base.

To demonstrate this last point, Epic reduced the assumed life of the compressor stations, communications equipment and operations and maintenance by one year. This had the effect of increasing the DORC by 17 per cent or $50 million. This reduction arose from the fact that Connell Wagner had indicated a life of 30 years for such equipment, and the MAPS is now at that age. Thus, the Connell Wagner approach assumed that asset replacement would already have taken place, or would take place over the next year. However, Epic stated that it had not included any major replacements in the pipeline system in its capital expenditure projections provided to the Commission.

2.2.3 Commission's *Draft Decision*

The Commission undertook its own assessment of Epic's initial capital base. This analysis (set out in Appendix 2 of the *Draft Decision*) looked in more detail at the components of the system than did Epic's approach. The Commission concluded from its analysis that the appropriate ORC for the MAPS (Option D) was $527 million compared to Epic's proposal of $572 million.

In calculating the DORC for the MAPS, the Commission depreciated the ORC using the asset class depreciation methodology. The Commission agreed with Connell Wagner's view that this 'offers a more transparent and robust process'.[11] The Commission derived a DORC for the MAPS of $316 million (at 30 June 2000).

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[10] Epic letter to Commission, 11 April 2000.

[11] Connell Wagner, *Final Report*, April 2000, p. 5.

For comparison, the Commission also assessed the approach to depreciating the entire capital base using a 'weighted average asset life', as originally proposed by Epic. However, the Commission stated in the *Draft Decision* that although the resulting DORC might be the same, this approach does not provide the transparency necessary to track movements in assets over time and, in particular, makes it difficult to link capital expenditure to the expiry of assets.

SKM audit of Commission's ORC proposal (Draft Decision)

The Commission asked Sinclair Knight Merz (SKM) to review the Commission's ORC valuation for the MAPS. SKM agreed with the methodology used by the Commission in valuing the MAPS, and concluded that the Commission's approach was more robust than Epic's. SKM concluded that the Commission's calculation for the ORC cost (Epic's Options B and D) produced estimates within the range that SKM would expect.

Deferred tax liability adjustment to the capital base

The Commission included an adjustment to the initial capital base to account for Epic's deferred tax liability (at 30 June 2000). The rationale for this adjustment, and the Commission's response to concerns raised by Epic prior to the release of the *Draft Decision* were set out in detail in the *Draft Decision*.

2.2.4 Submissions from interested parties

Santos noted the exclusion of native title costs from the Commission's ORC calculation, and the apparent 'selective inclusion of certain costs.' Santos submitted that all costs that would be incurred in the replacement of facilities should be included in the ORC.[12]

The South Australian (SA) Government submitted that Epic's ICB proposal based on split asset lives of ($383 at 30 June 2000) is within the accuracy range, +/- 25 per cent (nominated by the Commission's consultants Connell Wagner), of the $310m proposed by the Commission. [13]

The SA Government also suggested that the Commission's adjustment to the ICB to account for Epic's deferred tax liability is counter to generally accepted accounting practice. In particular, the Government stated:[14]

> It is not clear that the Gas Access Code provides for such an unusual concept [deferred tax liability adjustment]. It is understood that some US precedents exist for this proposal. It would be helpful if such precedents could be made public, and the reasons for the proposal are made clear.

The AGUG criticised the Commission's use of DORC, on the basis that it is difficult to arrive at a reliable and accurate valuation of the capital base using this methodology,

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[12] Santos submission, 18 September 2000, p. 4.
[13] SA Government, 8 September 2000, p. 10.
[14] Ibid, p. 11

and that experience to date indicates that assets in some instances have been wildly over valued.[15] The AGUG stated:

> It is not surprising that Epic Energy has opted for an asset valuation based upon DORC. This methodology maximises the value of the asset base compared with other methodologies and thereby maximises the level of tariffs applied for in the access arrangement application.[16]

The AGUG also commented on the noticeable absence of DAC in the *Draft Decision*. The AGUG suggested that because the DAC provides a 'single, verifiable and accurate figure,' the Commission should 'apply any allowances considered necessary' to convert this figure into a current valuation of the initial capital base.[17]

2.2.5 Epic's response to submissions and *Draft Decision*

Following the release of the Commission's *Draft Decision*, Epic revised its original ORC valuation for the MAPS upward from $572 million to $600 million (at December 1998), or $620 million (at June 2000) to account for errors in its original proposal.[18] Epic submitted reports from Venton & Associates, and Worley Limited in support of Epic's ORC calculations, and changed its preference from Option D to Option B.[19]

Epic also submitted that the decline in the exchange rate that had occurred since Epic made its original proposal would potentially add at least a further $55 million to the ORC and $33 million to the DORC. Epic's resulting DORC range, inclusive of exchange rate variations, is therefore, $387 million to $405 million.[20]

Epic agreed with Santos' suggestion that native title costs should be included in the ORC calculation. Epic argued that realistic costs should be included for all aspects of the ORC evaluation, including costs involved in the administration of native title considerations.[21]

Epic again stated that it remains opposed to the Commission's asset class approach to depreciating the ORC to arrive at a DORC valuation. In particular, Epic does not agree that the approach is appropriate for an asset such as the MAPS, as a minor variation in the life assumption of an asset class can lead to a significant variation in the DORC valuation.[22] Further, the approach is inconsistent with Epic's capital expenditure forecasts, in relation to asset replacement. According to Epic:[23]

> The initial capital base determined may be artificially low, with no capital expenditure forecast in the access arrangement period to reflect the capital replacement required for the 'optimised' pipeline and accordingly there may be insufficient revenue allowance.

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15 AGUG submission, 21 September 2000, p. 2.
16 Ibid, p. 1.
17 Ibid, p. 2.
18 Epic's response to *Draft Decision*, 10 October 2000, Part A, p. 7.
19 Epic's response to *Draft Decision*, 10 October 2000, Part A, Appendix 1
20 Epic response to *Draft Decision*, 10 October 2000, Part A, p. 4.
21 Epic response to *Draft Decision*, 10 October 2000, Part C, p. 9.
22 Ibid, p. 8.
23 Ibid

Epic remains opposed to the Commission's adjustment to the initial capital base to account for Epic's deferred tax liability. Epic does not consider this adjustment appropriate for the following reasons:

- the deferred tax liability has no impact on future cash flows;
- no evidence has been presented to suggest that MAPS users have paid tariffs inclusive of a higher tax component than should have been the case;
- even if this were the case, this does not imply an over-recovery of capital to date; and
- even if there were an over-recovery of capital, the balance in a deferred tax liability account would not be an appropriate measure of that over-recovery.[24]

2.2.6 Commission's considerations

The Commission has considered the views put by interested parties and Epic in response to the Commission's *Draft Decision*. In light of exchange rate movements since Epic first lodged its proposed access arrangement, the Commission contracted MicroAlloying International to investigate current pricing of high strength linepipe, a significant component of the total cost. Key findings of the consultant's report were:

> … that competitive pressures, rather than currency fluctuations will continue to dominate pricing practices and policies.
>
> There is considerable available capacity for both HFERW and DSAW linepipe in the size ranges of relevance for Australian projects. The basic skelp raw material(s) are also available in abundant capacity, particularly Grade X-70. New pipe producers are entering both the Australian and international markets which seems likely to maintain pressure on prices for the foreseeable future.[25]

The Commission's reassessment of ORC

The Commission has reviewed its earlier estimate of ORC reported in the Commission's *Draft Decision* in the light of further submissions by interested parties, and comments on the *Draft Decision* by Epic and its consultants.[26]

In the Commission's *Draft Decision* ORC estimates were considered which were based on a maximum capacity of 393 TJ per day.[27] This capacity included an additional 40 TJ per day capacity expansion completed in early 1999. Epic has upgraded the capacity of the pipeline since by an additional 25 TJ per day. The existing maximum capacity is therefore 418 TJ per day and in revising its ORC estimate, the Commission has taken that capacity as the basis for the revised ORC.

As previously stated, MicroAlloying International was asked by the Commission to prepare a report on the cost of pipe, as this is an important component of the ORC estimate. Inflation since June 2000 and the impact of exchange rate changes since then

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24 Ibid, p. 9.

25 MicroAlloying International: *Report on Pricing of High Strength Linepipe*; 7 December 2000, p. 6.

26 Venton & Associates; letter dated 12 October 2000 and Worley Limited; letter dated 27 September 2000

27 MAPS Access arrangement information, Attachment 2 (September 1988, revised March 1999).

have also been taken into account in adjusting other components of the total cost. The Commission's updated ORC estimate is $624.9 million,[28] based on option D.[29]

Table 2.3 provides a comparison of the Commission's current ORC estimate and Epic's nominated ORC option referred to in the *Draft Decision*. Epic's figures have been updated by the Commission to account for inflation since then.

In respect of the Commission's current ORC estimate;

- estimates for the main, loop and lateral pipelines have been updated;[30]
- the cost of pipe has been reviewed in the light of the MicroAlloying report;[31]
- the Commission has accepted the arguments put forward by several parties of the need to recognise additional costs associated with meeting native title requirements. The rate of $5,000/km of easement proposed by Epic as an allowance towards such costs has been adopted;
- compressor, meter and regulator station cost estimates have increased as a result of the use of a more detailed cost estimation model and after accounting for inflation and exchange rate effects;[32]
- cost of gas for linepack has been increased from a value of $2.75/GJ (proposed by Epic in June 99) to $3.00/GJ, in line with inflation since June 1999;[33]
- cost of spares (estimated at the rate of 1 per cent of capital cost) has now been identified separately;
- the effective interest rate has been updated taking into account a current cost of borrowing of 6.68 per cent;[34]
- other costs have generally increased in line with inflation since June 2000; and
- the ORC has been calculated to include the recent expansion of the pipeline.

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28 As at 30 June 2001.

29 Epic has not changed its preference for Option B.

30 Epic and its consultants (Venton & Associates; and Worley Limited) appear to have interpreted the base construction rate used by the Commission in its *Draft Decision* estimate incorrectly. In the Commission's model for estimating construction costs a so-called base construction rate is multiplied by factors that take into account assumed location and trench conditions. In this instance the average rate used was 30% above the base rate. This average rate ($306/km.mm) is identical to the rate for construction costs quoted by Venton for Epic's Ballera-Wallumbilla pipeline, completed in 1996. The Commission has adopted the Ballera-Wallumbilla average rate with appropriate adjustment to account for inflation.

31 For example, based on the study by MicroAlloying International, X70 pipe in the size range required can be landed in NSW for $A1,053/tonne. Based on the pipe's origin (Southern Europe) it has been assumed that the landed price in SA would be the same. In the Commission's estimate of pipe cost, an average price for delivery of pipe to site of approximately $80/tonne has been added to this base cost.

32 A third compressor unit has been included at Station 5 to enhance system backup.

33 No adjustment for inflation was made in the estimate for the *Draft Decision*.

34 Interest on capital has been determined by assuming a linear expenditure profile of the total capital over an assumed construction period of 18 months. The interest rate used is consistent with the Commission's CAPM assumptions.

The unit costs shown in Table 2.3 are provided for comparison purposes only. Given the wide range of opinions on the appropriate value (outlined in the *Draft Decision*) the Commission has not relied on these in deriving its estimate.

It should be noted that Epic's ORC is for a capacity of 393 TJ per day whereas the Commission's ORC is for a capacity of 418 TJ per day. Therefore the total figures are not directly comparable.

Table 2.3: Comparison of ORC estimates

	Epic ORC – Option B ($000 June 01)				**Commission ORC – Option D ($000 June 01)**			
	MAOP 15MPa - 393TJ/d				MAOP 10MPa - 418 TJ/d			
Item/description	Unit	Diameter	Unit cost	Cost	Unit	Diameter	Unit cost	Cost
PIPELINE	km	inch	$/inch.km	$000	km	inch	$/inch.km	$000
Main line	781	22	24,100	414,900	781	24	20,100	375,900
Loop line	42	20	24,100	20,300	42	20	25,800	21,700
Laterals	244.5	6.8	30,800	51,300	232.9	7.5	25,600	44,700
Native title compensation				5,800				5,800
COMPRESSORS	No	kW	$/kW		No	kW	$/kW	
Compressor stn #1	3	6,000	2,200	39,500	2	4,570	3,400	31,000
Compressor stn #3					2	4,570	3,400	31,000
Compressor stn #4	2	2,000	2,700	11,000				
Compressor stn #5					3	4,570	3,000	41,400
WhtyeYarc comp stn	2	570	5,500	6,300				
METER STATIONS								
Meter & regulator stns				18,000				21,500
SCADA & COMMS								
SCADA & communications				7,700				3,300
LINEPACK	GJ		$/GJ		GJ		$/GJ	
Linepack	1,000,000		2.75	3,000	804,000		3.00	2,400
OPERATIONS & MAINTENANCE								
Maintenance depot				6,600				11,300
Head office/gas control				3,800				
Spares				3,800				5,100
SUB TOTAL				592,000				595,200
INTEREST			%				%	
Interest on capital			5.7	33,800			5.0	29,800
GRAND TOTAL				625,800				624,900

SKM audit of Commission's ORC proposal

The Commission asked Sinclair Knight Merz (SKM) to review its ORC valuation for the MAPS at capacity of 418 TJ per day. SKM agreed with the methodology used by the Commission in valuing the MAPS, and concluded that the Commission's approach was more robust than Epic's.

> Sinclair Knight Merz believe that the methodology applied by the Commission is more robust than that applied by Epic….The Epic methodology, because it is a level more simplistic than the Commission's methodology, does not identify a separate unit price for the 10Mpa (mainline) system (Option D) than the 15Mpa system (Option B) and hence is less effective at differentiating between the options.[35]

Depreciation (ORC to DORC)

For reasons outlined in the *Draft Decision*, the Commission remains unconvinced by Epic's arguments against asset class depreciation. In response to Epic's concern that a minor variation in the asset life assumption could significantly impact on the DORC, the Commission notes that this concern is only relevant where it is assumed that all system assets have an expired life equal to the age of the pipeline system. This was the assumption made by Connell Wagner in calculating the DORC for the MAPS (see Table 2.4). However, in depreciating its ORC to DORC, the Commission calculated the average actual life of all assets in each class, based on information provided by Epic. Consequently, Epic's concern that a minor change in the Commission's assumption about asset lives can significantly impact the DORC is not valid.[36]

Table 2.4: Economic lives for the MAPS assets

Asset class	Economic life
Pipeline	80 years
Compressors	30 years
Meter Stations	15 years
SCADA	15 years
Depot/Office	50 years
Spares	20 years

Epic's argument that the Commission's approach to depreciating the ORC is inconsistent with Epic's forecast capital expenditure was also addressed in length in the Commission's *Draft Decision*. In particular, the Commission stated:

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35 Sinclair Knight Merz Review of the Commission's ORC costing of the Moomba to Adelaide gas pipeline, 29 August 2001, p.5.

36 The Commission notes that the average expired life of each asset class as used in formulating this *Final Decision* is exclusive of the expansion undertaken for National Power (now Pelican Point Power). The Commission would expect the average expired life of some asset classes to be reduced marginally by the inclusion of the Pelican Point Power expansion. Consequently, the Commission wrote to Epic on 10 August 2001 requesting revised data. Epic declined to provide further information.

> The initial capital base is not causally tied to the allocation of funds for capital works for future replacement or expansion. Under the regulatory framework, future capital expenditure and the initial capital base are in most respects assessed quite separately to each other.[37]

The Commission has depreciated the ORC of $624.9 million (at 30 June 2001) by asset class on a straight-line basis, consistent with the methodology applied in the *Draft Decision*. The resulting DORC is $353.3 million at 30 June 2001.

Deferred tax liability

The Commission has considered the views put by interested parties and Epic in response to the Commission's *Draft Decision*.

As discussed in the Commission's *Draft Decision*, the Code clearly provides for deferred tax liability type adjustments in determining the ICB in section 8.10 (f). The Commission believes the reasons for making the deferred tax liability adjustment as outlined in the *Draft Decision* are sufficiently clear.

The Commission does not accept the arguments put forward by Epic in its 10 October 2000 submission that the adjustment is not legitimate. The Commission's arguments are supported by US regulators who make a similar adjustment for the reasons outlined in the *Draft Decision* and also in consultancy work that the Commission has had undertaken on its behalf.

However, the Commission has decided that it will not pursue the DTL adjustment for the *Final Decision*. This is partly due to the adjustment being relatively insignificant in this case and partly due to concerns relating to the consistent application of the DTL adjustment to the ICB.

Not pursing the adjustment will result in a small windfall gain to the pipeline owner.

Imputed DAC, book value, depreciated sale price and residual value based on economic depreciation

Section 8.10 of the Code states that in addition to the DORC, the depreciated actual cost (DAC) and other well-recognised asset valuation methodologies should be considered in establishing the initial capital base. In the *Draft Decision*, the Commission reported on the DAC, book value, depreciated sale price and residual value (based on economic depreciation) for the MAPS. These valuations were used as a guide in assessing the reasonableness of the Commission's DORC valuation for the initial capital base, and are summarised below.

Epic did not provide a DAC valuation for the MAPS in the access arrangement information. However, with the assistance of Epic, the Commission imputed a DAC valuation for the pipeline system's assets at December 1998 of approximately $38 million on the basis of straight-line depreciation over the lives of the various classes of assets, based on the published annual accounts of PASA. PASA was the previous operator of the MAPS. The Commission considers that this estimate is reasonable given the age of the pipeline system.

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37 ACCC, MAPS *Draft Decision*, 16 August 2000, p. 31.

The book value of the MAPS at 31 December 1998 was estimated to be $319 million.[38] Epic calculated this value as the purchase price of the pipeline in June 1995 plus capital improvements, less disposals and accumulated depreciation since that time. The Commission estimated the book value at 30 June 2000 to be $323 million after these adjustments.

Where assets have recently been exchanged, their sale price can also be used as a guide or check on their current value in use. In theory, a purchaser would pay an amount up to the net present value of future earnings expected from the assets. The purchaser may pay more if it sees scope to reduce the expected capital costs or operating expenses. Therefore, in determining the initial capital base for the *Draft Decision*, the Commission considered the amount that Epic's related predecessor, Tenneco, paid in 1995 to purchase the MAPS, adjusted for inflation and depreciation.

Tenneco purchased the assets of PASA from the South Australian Government on 30 June 1995 at a cost of $304 million.[39] This included some assets not attributed to the MAPS.[40] Adjusting the PASA purchase price for inflation and depreciation since June 1995 yields a valuation of approximately $294 million (at 30 June 2000). Because the starting value (purchase price) included assets not attributed to the MAPS, the true depreciated sale price of the MAPS is something less than $294 million. However, as the pipeline system has been changed since then by capital improvements and disposals, the book value may be a better indicator for regulatory valuation purposes.

Another factor that the Code requires the regulator to consider when establishing the value of the initial capital base is the past performance of the entity. In particular, section 8.10(f) requires the regulator to consider 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.

By implication, the value of the assets might be reduced in the case of a service provider that has earned higher than normal returns in the past. Conversely, the value of the assets might be increased for a service provider that has earned less than normal returns.

To determine whether Epic has earned a normal rate of return on its investment in the MAPS since it was purchased in 1995, the Commission assessed economic depreciation based on actual revenues and returns likely to have been available to Epic since then. Economic depreciation and estimated capital expenditure were used to estimate a residual (closing) value of the assets of the MAPS at 30 June 2000 of approximately $301 million. However, because the starting value (purchase price) included assets not attributed to the MAPS, the residual value of the MAPS is actually something less than $301 million.

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[38] Access arrangement information, p. 12 and Epic, consolidated response to Commission letter of 30 April 1999, p. 1. The Commission invited Epic to clarify the figure for book value by reference to other accounting information. No further information has been received.

[39] Epic, consolidated response to Commission letter of 30 April 1999, p. 6.

[40] Epic has provided the Commission with the purchase price adjusted for non-MAPS assets on a confidential basis.

2.2.7 Conclusion

The Commission has taken into account the Code's requirements when assessing Epic's proposed capital base valuation in the light of submissions by interested parties, the Commission's own analysis, its previous practice, the *Draft Regulatory Principles*[41] and its developing principles. In selecting a DORC value over other valuation methods, the Commission has given weight to the *Draft Regulatory Principles*. The Commission considers that its own calculation of DORC is more robust than the DORC determined by Epic.

The range of values is summarised in Table 2.5.

Table 2.5: Initial capital base valuations at capacity of 393 TJ per day (30 June 2000)

ICB ($ million)	Epic draft	Epic final	Connell Wagner	ACCC draft
DORC – depreciation by asset class, split lives	$383			
DORC – weighted average asset life	$354	$387 - $405		
DORC – depreciation by asset class, conventional class lives			$279 - $300[(a)]	$316
Book value				$323
Residual value[(b)(c)]				$301
Depreciated sale price[(c)]				$294

Notes:

(a) Range of DORC valuations prepared by Connell Wagner, updated to 30 June 2000 for inflation and depreciation since 30 December 1998.

(b) Based on analysis of historical returns and economic depreciation.

(c) As discussed in section 2.2.2, this includes assets not attributed to the MAPS.

The DAC value of $38 million has not been included in Table 2.5. The Commission considers that this aggregation of depreciated capital expenditure mostly made over a long period while the pipeline was in government ownership does not provide a useful indicator of the return on capital that a private sector operator could reasonably expect.

The Commission has recalculated ORC and DORC to include the recent expansion of the pipeline to a capacity of 418 TJ per day. The Commission depreciated the new ORC of $624.9 million (at 30 June 2001) by asset class on a straight-line basis, consistent with the methodology applied in the *Draft Decision*. The resulting DORC is $353.3 million at 30 June 2001.

The Commission's DORC is not directly comparable with the alternative valuations listed in Table 2.5 since it is determined at a different date and for a different pipeline capacity. Nevertheless, it can be seen that the Commission's DORC is broadly consistent with the alternative valuations listed in the Table. Further, the DORC

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41 ACCC, *Draft Statement of Principles for the Regulation of Transmission Revenues*, 27 May 1999.

calculated in this *Final Decision* has been determined by applying the same basic principles that were applied to calculating the DORC in the *Draft Decision*.

For the above reasons, the Commission proposes an initial capital base for the MAPS corresponding with the DORC valuation of **$353.3 million at 30 June 2001.**

Amendment FDA2.1

For the access arrangement to be approved, the Commission requires the value of the initial capital base to be set to the value derived by the Commission, $353.3 million at 30 June 2001.

2.3 New facilities investment and capital redundancy

2.3.1 Code requirements

The Code (section 8.9) states that the capital base at the commencement of each access arrangement period subsequent to the first is determined as:

(a) the capital base at the start of the immediately preceding access arrangement period; plus

(b) the new facilities investment or recoverable portion in the immediately preceding access arrangement period; less

(c) depreciation for the immediately preceding access arrangement period; less

(d) redundant capital identified prior to the commencement of that access arrangement period.

This leads to the question of how capital expenditure and capital redundancies are to be treated under the access arrangement for the present period. These issues are discussed below.

New facilities investment

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

Unless the incremental revenue is expected to exceed the cost of the investment, the service provider (and/or users) must satisfy the regulator that the new facility has system-wide benefits justifying a higher reference tariff for all users. Alternatively, the service provider must show that the new facility is necessary to maintain the safety, integrity or contracted capacity of services.

Under sections 8.18 and 8.19 of the Code, a service provider may also undertake new facilities investment if the foregoing criteria are not met. To the extent that an

investment does not meet the section 8.16 criteria or is speculative in character, the augmentation of the capital base is to be correspondingly reduced.[42]

Reference tariffs may be determined on the basis of forecast investment during the access arrangement period provided such investment is reasonably expected to pass the section 8.16 requirements when the investment is forecast to occur (section 8.20). However, the inclusion of forecast investment does not imply that the section 8.16 criteria have been satisfied. The regulator may reserve its judgment until the investment is undertaken or until the next review. The Code (section 8.22) also provides that the reference tariff policy should specify how discrepancies between forecast and actual investment are to be reflected in the capital base at the commencement of the next regulatory period (so as to meet the objectives of section 8.1 of the Code). Alternatively, the regulator may determine how the expenditure will be treated for the purpose of section 8.9 (changes to the capital base) at the time the regulator considers revisions to an access arrangement.

Capital redundancy

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 is to take effect at the commencement of the next access arrangement period so as to:

- ensure that assets that 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 such a mechanism, the regulator must consider the potential uncertainty such a mechanism would cause and the effect that uncertainty would have on the service provider, users and prospective users.

Where redundant assets subsequently contribute to or enhance the delivery of services, the Code (section 8.28) allows the assets to be added back to the capital base as if they were new facilities investment subject to the associated criteria noted above.

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 (section 8.29).

2.3.2 Epic's proposal

New facilities investment

Epic's original proposal for new facilities investment was outlined in conjunction with the queuing policy. Epic stated that it did not propose to undertake any independent new facilities investment, but that it would consider proposals to extend or expand

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[42] Pursuant to section 8.19, the part of the investment that is of a speculative nature is to be held in a speculative investment fund and may be added to the asset base at a later date when it meets the section 8.16 criteria.

facilities if a proposed user makes a capital contribution.[43] Epic has substantially revised the expansions and extensions policy in the revised access arrangement lodged with the Commission on 29 June 2001. The revised policy is discussed in section 3.5.2 of this *Final Decision*. Epic stated in clause 5.2(a)(vi) of the 29 June 2001 lodgement of the access arrangement that it currently has no speculative investment fund.

Capital redundancy

Epic stated in clause 5.2(a)(iii) of the 29 June 2001 lodgement of the access arrangement proposal that it has no redundant capital.

2.4 Depreciation of capital

2.4.1 Code requirements

Sections 8.32 and 8.33 of the Code set out the principles for calculating depreciation for the purposes of determining a reference tariff. In brief, the depreciation schedule should meet the following principles:

- It should result in the reference tariff changing over time consistently with the efficient growth of the market for the services provided.
- Depreciation should occur over the economic life of each asset or group of assets, with progressive adjustments to the maximum extent that is reasonable to reflect changes in expected economic lives.
- Subject to the capital redundancy provisions (section 8.27), an asset is to be depreciated only once. Thus the total accumulated depreciation of an asset will not exceed the value of the asset at the time the asset or group of assets was first incorporated in the capital base.

Section 8.5 permits any methodology to be used provided it can be expressed in terms of one of the methodologies described in section 8.4 of the Code. One of the Code's design criteria for the depreciation schedule is that it should result in the reference tariff changing over time consistently with the efficient growth of the market.

The Code's general principles are again pertinent. Section 8.1(a) provides that the service provider should have 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.

2.4.2 Epic's proposal

Depreciation and change in the general level of prices

The original proposed access arrangement stated that accumulated depreciation was calculated based upon the estimated remaining asset life consistent with sections 8.32 and 8.33 of the Code. This value was used to reduce the ORC to establish the starting point for the initial capital base.

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[43] Refer Epic access arrangement information, p. 12 and revised proposed access arrangement, 2 March 2000, clause 10.5(d).

Epic stated that at the time of application, the pipeline was 29 years old. Epic depreciated the whole pipeline system on a straight-line basis over 77 years to calculate a DORC of $353.5 million.[44] Taking the difference between the ORC and DORC estimates provided by Epic, the Commission inferred depreciation of $216 million as at 31 December 1998. Adjusting for change in the general level of prices and for depreciation since then, the Commission has inferred accumulated depreciation under Epic's proposal of $227 million as at 30 June 2000. The Commission's views on Epic's approach to calculating accumulated depreciation are set out in section 2.2.7.

In calculating the depreciation component of cost of service revenue to apply in each year of the access arrangement period, Epic again depreciated the whole pipeline system on a straight-line basis.

In the access arrangement, Epic stated that the capital base would be adjusted annually by a 'capital cost revaluation' that would be equal to the CPI and would be a 'fixed principle'.[45] Epic estimated annual inflation of 2.5 per cent for the duration of the regulatory period.[46]

Stay in business capital (capital expenditure)

Epic's proposed depreciation schedule and capital charge incorporate an allowance for 'stay-in-business capital' (that is, capital expenditure).[47] In confidential data lodged in support of its depreciation schedule and capital charge, Epic stated details of the assumed asset lives and amounts it had allowed in the calculation of the capital base for the items of stay-in-business capital (which it publicly disclosed as an aggregate).

Working capital

In calculating the capital charge (return on assets), Epic included an allowance in the capital base for working capital, calculated as 20 days of the annual managed costs.[48]

Epic provided the following definition of working capital:[49]

> … the average amount of capital provided by investors … over and above the investment in plant … required to bridge the gap between the time that expenditures are required to provide service and the time collections are received for that service.

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[44] Access arrangement information, p. 12, as modified by consolidated response to ACCC letter of 30 April 1999.
[45] Access arrangement, clause 5.2(a)(v).
[46] Access arrangement information, p. 19.
[47] Access arrangement information, p. 19.
[48] Access arrangement information, pp. 12, 19.
[49] Ohio PUC, *Re Columbus Southern Power Co*, 1992 133 PUR4th 525, 550, quoted by EAPL in Access Arrangement Information, 5 May 1999, p. 28.

Table 2.6: Epic's proposed capital charge

Year end 31 December	1999	2000	2001	2002	2002	2004
Opening Asset Value	353,535	349,903	354,111	358,230	363,328	364,423
Add:						
Working Capital	820	-6	27	-15	28	32
Stay in Business Capital	3,136	2,500	2,550	3,750	3,200	2,550
Capital Cost Revaluation		8,727	8,812	8,894	9,001	9,089
Less:						
Depreciation	7,589	7,833	8,085	8,373	8,656	8,934
Year End Capital Base	349,903	353,291	356,595	360,851	364,423	367,161
Average Annual Capital Base	351,719	351,597	354,943	358,723	362,637	365,792
Annual Capital Charge @ 9.5%	33,413	33,402	33,720	34,079	34,451	34,750

Source: Epic e-mail to Commission, 4 July 2000.

2.4.3 Commission's *Draft Decision*

Depreciation and change in the general level of prices

The Commission stated in the *Draft Decision* that it prefers the use of the more transparent straight-line depreciation by asset class to calculate the depreciation component of the cost of service revenue requirement.

An additional depreciation amount was included in the revenue requirement to reflect the Commission's approach to normalising tax payments in the post-tax regulatory framework. This approach was discussed in detail in section 2.7.4 of the Commission's *Draft Decision*. Briefly, normalisation involves spreading tax payments over the life of the asset to avoid discontinuity in the revenue requirement, and therefore in reference tariffs, as taxes become payable in the future. The normalisation factor represents an additional depreciation allowance (return of capital) in Epic's revenue requirement in earlier years to offset expected future tax liabilities.

The Commission rejected Epic's proposed fixed principle for indexation of the capital base. Epic has since amended the access arrangement to reflect this.

Stay in business capital

The Commission proposed in its *Draft Decision* that the capital expenditure (stay-in-business capital) proposed by Epic be included in the asset base when it is scheduled to occur. The depreciation schedule should also be reduced by the proceeds of sale of any assets taken out of service and not replaced. At the commencement of the next regulatory period, the Commission will assess whether the actual capital expenditure undertaken during this access arrangement period should be included in the capital base.

Working capital

The Commission proposed in the *Draft Decision* not to include the initial allowance for working capital, and changes in the level of working capital thereafter, in the capital base for the purposes of calculating Epic's return on capital.

The Commission explained that its cash-flow analysis assumes that all costs and revenues are incurred on the last day of the financial year (31 December in Epic's case). In reality, however, Epic's cash flows would occur at regular intervals throughout the year, giving the company a benefit over and above the regulated revenue. That benefit is equal to the time value of money on all cash flows prior to 31 December each year. The Commission stated that this benefit more than compensates Epic for any 'gap' between payments and collections that may occur throughout the year.

2.4.4 Submissions by interested parties

There were no submissions by interested parties on the above issues.

2.4.5 Epic's response to submissions and the *Draft Decision*

Working Capital

Epic objected to the Commission's proposed amendment in relation to working capital. According to Epic, the need to account for working capital arises because at the time Epic acquired the MAPS, there was an initial period during which payments were required in advance of revenue being received. This 'gap' was financed by an initial injection of working capital. This must be recognised, and the cost of that working capital must be taken into account, irrespective of the timing of subsequent receipts and payments.[50]

Epic disagrees with the Commission's argument that working capital should not be included in the capital base on the basis that all revenues are modelled as accruing to Epic at the end of each year, when in reality, revenues accrue to Epic frequently throughout the year. According to Epic:[51]

> The Commission's determination of required revenue does not proceed from cash flow and present value considerations. It proceeds from determination of a cost of service, and one of the costs of providing service is the cost of the working capital required to bridge an initial gap between receipts and payments. It must be included in the cost of service.

2.4.6 Commission's considerations

The Commission believes that Epic has not understood its arguments for not including working capital in the capital base. The Commission's determination of required revenue under the cost of service approach does in actual fact centre around cashflow

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[50] Epic response to *Draft Decision*, part A, p. 9.
[51] Epic response to *Draft Decision*, part A, p. 9.

modelling. In recent correspondence, Epic stated that it was not clear from the Commission's *Draft Decision* why it would receive a cashflow timing benefit, in excess of the amount of working capital proposed by Epic.[52]

The inclusion of working capital in the asset base is incompatible with the Commission's approach to cashflow modelling. If the Commission included working capital in the capital base, then it would need to revise its approach to cashflow modelling in order to maintain internal consistency. As can be seen in the following example, such a shift would be detrimental to Epic.

Epic proposed an amount of $820,000 to be included in the capital base for working capital. Depreciation over a year (2001) for the MAPS is in excess of $3 million. The Commission calculates Epic's required revenue for 2001 on the opening balance of the capital base and assumes revenue is received at year-end. However, if the Commission was to be more precise it would model cashflows to more accurately represent their actual timing. In the case of depreciation, this would involve calculating the average capital base over the year rather than the opening capital base. The impact of depreciation alone in this calculation would be to subtract in excess of $1.5 million from the capital base, nearly double the amount Epic is requesting to be included for working capital. Depreciation is just one example of the benefits accruing to Epic as a result of modelling cashflows on an annual basis, and assuming that cashflows occur at year-end.

The Commission could model Epic's cashflows on a monthly basis rather than an annual basis, which would remove the benefits accruing to Epic as a result of the time value of money. Under this scenario, it would be appropriate to include an amount for working capital. However, the example given above clearly indicates that Epic's required revenue as determined by the Commission would certainly be less as a result of more detailed cashflow modelling. The Commission has however adopted a light-handed approach to regulation and for this access arrangement has calculated the required revenue on an annual basis. Therefore, Epic's proposal to include an amount for working capital in the capital base is not accepted.

Amendment FDA2.2

For the access arrangement to be approved, the Commission requires that the working capital component not be included in the value of the capital base for the purpose of calculating Epic's capital charge (return on capital assets).

Commission's capital base roll-forward

The Commission's approach to adjusting the initial capital base for forecast capital expenditure, is to roll that expenditure into the capital base as it is scheduled to occur over the access arrangement period. At the commencement of the next access arrangement period, only that part of forecast capital expenditure that was actually spent in the previous period would be included in the capital base.

52 Letter from Epic to the ACCC of 23 August 2001, Attachment 1.

In addition to rolling in capital expenditure, the book value of the capital base is adjusted for forecast inflation and depreciation over the access arrangement period. Adjusting the capital base for capital expenditure, inflation and depreciation over the access arrangement period is referred to as 'rolling forward' the capital base.

The Commission's calculation of the net change in the value of the asset base from year to year over the access arrangement period is shown in Table 2.7.

Table 2.7: Commission's capital base roll-forward ($million)

As at 1 January	**2001**	**2002**	**2003**	**2004**	**2005**
Opening Asset Value	353.0	351.0	349.8	347.4	344.7
Nominal Depreciation[(a)]	3.1	3.5	3.9	3.4	3.7
Normalisation factor (extra depreciation)	1.4	1.5	1.7	1.8	2.0
Capital expenditure	2.6	3.8	3.2	2.6	2.6
Asset value carried forward	351.0	349.8	347.4	344.7	341.6
Return on capital @ 9.10 per cent[(b)]	32.1	32.0	31.8	31.6	31.4

Notes:

(a) Nominal book depreciation combines the nominal straight-line depreciation charge and the inflation adjustment to the capital base in each year.

(b) Nominal vanilla WACC calculated by the Commission. See section 2.5.4 below.

The Commission has adopted these figures in its calculation of Epic's cost-of-service revenue requirement.

2.5 Rate of return

2.5.1 Code requirements

As noted earlier, the Code (sections 8.30 and 8.31) states that the rate of return used should provide a return that is commensurate with prevailing conditions in the market for funds and with the commercial risk associated with providing the reference service. The Code suggests as an example using a weighted average of the returns applicable to each type of capital (equity, debt and any other source of funds), commonly known as the 'weighted average return on (cost of) capital' or 'WACC'. Such returns would be determined on the basis of a well-accepted financial model such as the capital asset pricing model (CAPM). The financing structure assumed should also reflect standard industry structures and best practice. However, a service provider may adopt other approaches if the regulator is satisfied that the objectives regarding the design of the reference tariff and reference tariff policy set out in section 8.1 of the Code are met.

2.5.2 Epic's proposal

Epic submitted that the Commission's *Final Decision* on the allowed rate of return for TPA's gas transmission systems in Victoria is an appropriate starting point in the

establishment of a rate of return for the MAPS.[53] However, Epic submitted that the required rate of return for equity investment to be undertaken in the MAPS should be significantly greater, resulting in a higher WACC than that approved for the Victorian pipeline system.

Epic submitted that a pre-tax real WACC in the range 9-10 per cent is appropriate for the MAPS, in comparison with the pre-tax real WACC of 7.75 per cent approved for the Victorian transmission system.[54]

Epic stated that the following characteristics of the MAPS should be factored into the calculation of the required rate of return:[55]

- South Australian market growth is static, with limited opportunities available;
- the pipeline is dependent on two customers and is exposed to volatile electricity generation load;
- pipeline sales to generators must compete with imported and coal-fired electricity generation;
- long term gas resources are uncertain;
- it is more likely that the system could be bypassed; and
- no annual revenue adjustment for material changes in operating costs is being requested.

The underlying parameters, equations and other assumptions used by Epic in the CAPM framework to develop the proposed post-tax nominal return on equity and other WACC derivatives are summarised in Table 2.8.

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53 Access arrangement information, p. 31.
54 Acess arrangement information, pp. 31 and 34.
55 Access arrangement information, p. 31.

Table 2.8: Parameter ranges proposed by Epic for WACC calculations

Parameter	Input variable	Ranges	
		Low	High
General economic parameters	Change in the general level of prices given by CPI	2.5%	2.5%
	Corporate tax rate	36%	36%
	Imputation take-up rate	50%	25%
Gearing	Debt	60%	60%
	Equity	40%	40%
Cost of debt	Base rate	6%	6%
	Debt margin	1.2%	1.5%
Cost of equity	Market risk premium	6%	7%
	Asset beta	0.55	0.70
	Equity beta	1.18	1.55

Source: access arrangement information, p. 32.

The nominal cost of equity is a key variable in determining the rate of return. Based on the parameters above, Epic determined a nominal cost of equity (r_e) of between 13.08 and 16.84 per cent.

Epic defined the post-tax nominal WACC (W) by the following formula:

$$W = r_e \frac{(1-T)}{(1-T(1-\boldsymbol{g}))} \frac{E}{V} + r_d (1-T) \frac{D}{V}$$

Where: V = Debt (D) + Equity (E)

R_d = Base rate + debt margin

T = Corporate tax rate

Epic's conversion from post-tax nominal to pre-tax real WACC was achieved by adjusting for tax first and then for the rate of change in the general level of prices (or inflation). This conversion is known as the 'forward transformation'. A reverse transformation adjusts for inflation first and then for tax. The WACC results using both conversion approaches are summarised in Table 2.9.

Table 2.9: Epic's proposed ranges for WACC

WACC	Low (per cent)	High (per cent)
Nominal post-tax	6.85	8.78
Nominal pre-tax	10.7	13.73
Real pre-tax (forward transformation)	8.0	10.95
Real pre-tax (reverse transformation)	6.63	9.58

Source: access arrangement information, p. 34.

Choosing a real pre-tax WACC range of 9-10 per cent, Epic submitted that this range reflected the additional risk characteristics of the pipeline system outlined above.[56]

2.5.3 Commission's approach to calculating WACC

Consistent with section 8.30 of the Code, the Commission's approach is to determine the WACC with due consideration of prevailing financial market benchmarks and the level of commercial risk involved in maintaining the service infrastructure through which the reference service is delivered.[57]

The Commission indicated in its Victoria *Final Decision* that a post-tax WACC framework is preferred to a pre-tax WACC framework.[58] Commercial returns to investors, including those indicated by CAPM, are invariably expressed in post-tax nominal terms. If two investments involving similar risks provide the owner with the same return before tax but a different net return after tax, an investor will prefer the investment that gives the higher net after-tax return. Indeed, if the investments are available as shares listed on the stock exchange the price of the latter will be bid up relative to the other so that the post-tax returns to investors will be equalised.

It follows that if, in regulating a service provider's revenues, the regulator takes account of the taxes likely to be paid by the service provider given its financial structure, the output from application of CAPM to the regulatory accounts will be the appropriate commercial return for the business.

If there are features of the taxation system that give benefits to shareholders in addition to dividend cash-flow, for completeness these need to be taken into account when assessing the prospective return to shareholders. The value of imputation credits to shareholders is one such benefit to be accounted for in the Australian context.

WACC parameters

The development of a WACC figure from the cost of equity requires certain parameters and assumptions. The values assigned to the financial parameters warrant discussion in

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[56] Access arrangement information, p. 34.

[57] The Commission has used financial market data as at 8 August 2000 to determine the WACC in the *Draft Decision*. This will be updated for the most recent market data available at the time of this *Final Decision*.

[58] See pages 56-59 of the Commission's *Final Decision* on Victorian Access Arrangements

some detail since they form the basis for determining the permitted rate of return on the regulated assets. Accordingly, each parameter will be dealt with in turn in the remainder of this section.

The key parameters are:

- the risk-free interest rate (r_f), the real risk-free rate (rr_f) and, by implication, the anticipated rate of inflation (f) and the interest rate applicable to debt (r_d);
- the market risk premium (MRP);
- the likely level of debt funding (D/V);
- the likely utilisation of imputation credits (γ);
- the effective tax rate (T_e); and
- the equity beta (β_e) relevant to stand-alone operation within the proposed regulatory framework.

2.5.4 Commission's *Draft Decision*

By assessing all of the above WACC parameters and Epic's post-tax cash flows, the Commission arrived at a post-tax nominal return on equity for the MAPS of 13.05 per cent. The pre-tax real WACC consistent with this is 6.70 per cent.

2.5.5 Submissions from interested parties

The South Australian Government noted that the pre-tax real WACC proposed in the *Draft Decision* (6.7 per cent) was significantly less than the pre-tax real WACC proposed by the South Australian Independent Pricing and Access Regulator (SAIPAR) for gas distribution (8.1 per cent) and electricity distribution (8.25 per cent) in South Australia.[59] The SA Government stated that it would be concerned that such a low WACC might adversely impact on new investment in gas pipelines in South Australia in the future, as well as future augmentation of the existing MAPS.[60] The submission stated:[61]

> A new entrant is likely to enter any market where the returns are expected to be sufficient to cover the long run marginal costs of entry. In the case of a regulated market like gas haulage, entry will be considered if a commercial opportunity exists (ie gas is required to be transported from A to B and customers are prepared to pay for such transportation) AND the expected regulated returns will cover the long run marginal entry costs….As such, the *Draft Decision* contains a low WACC and an approach to determining regulated asset base values which may result in revenues that are lower than the long run marginal costs of providing the service, thereby deterring new pipeline interests.

The AGUG stated that the analysis and treatment given to the determination of an appropriate rate of return in the *Draft Decision* has been thorough and rigorous.[62] The

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59 Letter from Hon Wayne Matthew MP to ACCC, 8 September 2000, p. 2.
60 Letter from Hon Wayne Matthew MP to ACCC, 8 September 2000, p. 2.
61 SA Government submission, 8 September 2000, p. 5.
62 AGUG submission, 21 September 2000, p. 4.

AGUG are of the view that the assessment of risk is crucial to setting an appropriate rate of return. According to the AGUG:[63]

> Regulated businesses are by definition low risk and this should be central to the determination of appropriate WACC. The risk premium sought by the applicant has been adequately refuted by a number of submissions to the Commission and we are supportive of those submissions.

Consultation forum

A number of parties also commented on the rate of return at the ACCC pre-decision public consultation forum held in Adelaide on 2 November 2000.

In relation to the level of risk facing the MAPS, Epic made the following statement:

> To also assess the risk as being low to Epic as it has contracts spanning this regulatory period is a furphy, and does not reflect reality. In fact, Epic will be negotiating contracts with shippers, no doubt before the end of this regulatory period, to cover the period beyond the existing contract drop off, and that occurs as a cliff face in 2006.[64]

The South Australian Government pointed out that the South Australian energy market is an immature market in need of additional pipeline investment. In particular, it stated:

> We don't have sufficient capacity right now to deliver enough gas or gas fired power generation in South Australia….So one of the clear issues for South Australia is that it is not just new pipelines coming into South Australia; it's potential augmentation of things like Moomba to Adelaide Pipeline System, which we think is necessary now. … our concern is that a low weighted average cost to capital is going to send the wrong signals to future investors.[65]

The AGUG re-stated its support for the Commission's WACC decision. The AGUG stated that the WACC proposed by the Commission in the *Draft Decision* is consistent with the decisions that are coming out of 'the more credible and independent regulators around Australia,' and is getting much closer to the benchmark that is needed to avoid monopoly rents.[66] However, the AGUG stated;

> We do not believe that the Commission's rate, even in this decision, is down at the level where it needs to be to completely eliminate the monopoly rents. In our view there is still an element of monopoly rent there. When we look at decisions coming out of the UK recently in relation to the national grid, which set a real pre-tax WACC of about 6.25 per cent, we would say that's getting down to the level that we really need to see here.[67]

2.5.6 Epic's response to submissions and the *Draft Decision*

Epic submitted that the rate of return proposed by the Commission represents a major disincentive for development, and should at the very least exceed the rates handed down by SAIPAR for Envestra's distribution network (8.1 per cent pre-tax real

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63 AGUG submission, 21 September 2000, p. 4.
64 Mr D Williams, Transcript, ACCC Pre-decision consultation forum, 2 November 2000, p. 10.
65 Mr C Fong, Transcript, ACCC Pre-decision consultation forum, 2 November 2000, p. 11.
66 Mr R Domanski, Transcript, ACCC Pre-decision consultation forum, 2 November 2000, p. 13.
67 Ibid.

WACC)[68] and IPART for AGL's distribution network (7.75 per cent pre-tax real WACC).[69] Epic considers that the risk facing the MAPS is significantly greater than that facing distribution networks. In particular, Epic argued that from 31 December 2005;

- the bulk of the MAPS capacity is uncontracted;
- the deliverability of Moomba gas will be diminished;
- the Victoria – SA gas pipeline initiative could be in place; and
- the gas fired electricity market could be substantially reduced with an additional two and possibly three electricity inter-connectors in place by that time.[70]

Epic criticised the Commission's choice of WACC parameters, claiming that not all of these are strictly 'market determined'. In particular, Epic is concerned by the arbitrary way in which values have been assigned to a number of non-market parameters. According to Epic:

> …the Commission continues to take an approach based on its view of an 'ideal' pipeline entity, and not a view which is based on 'standard industry structures for a going concern and best practice' as is required by the Code. This adoption of a view based on an ideal pipeline entity is reflected in the Commission's assumptions about capital structure and valuation of imputation credits.[71]

2.5.7 Commission's considerations

Under the Code, the Commission is required to set a rate of return 'commensurate with the prevailing conditions in the market for funds' and 'the risk involved in delivering the reference service' (section 8.30). The Code (section 8.31) also requires that where the rate of return is set on the basis of a weighted average of return on funds, this should reflect 'standard industry structures for a going concern and best practice.' The Commission considers that in setting benchmark WACC parameters, it has satisfied these requirements. These parameters are discussed in turn below:

Interest rates and inflation

As mentioned above, the Code (section 8.30) states that the rate of return should be 'commensurate with prevailing conditions in the market for funds.' This implies that all information for deriving the rate of return should be as up to date as possible at the point the access arrangement comes into effect. It also means that the rate of return should match the circumstances (economic conditions) of the regulatory framework. For example, the term of the interest rate should correspond to the term of the regulatory period. Interest rates and inflation expectations are parameters set by the financial markets on a daily basis and are readily determined.

Generally, the relevant WACC for regulatory purposes should be a forward-looking concept, giving an indication of the minimum average expected commercial return on

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68 SAIPAR, *Draft Decision* for the South Australian Distribution Systems 13 April 2000.
69 Epic response to *Draft Decision*, part A, p. 4.
70 Ibid, p. 10.
71 Ibid, p. 11.

debt and equity over the access arrangement period. Selected interest rates and inflation estimates relevant to the setting of the WACC have been derived from financial market data and are shown in Table 2.10.

Table 2.10: Current financial market interest rates and inflation expectations

Financial Indicator	Proposed by Epic (per cent p.a.)	40-day moving average ending 8 August 2000 (per cent p.a)[(a)]	40-day moving average ending 6 September 2001 (per cent p.a.)[(b)]
5 year government bond rate		6.10	5.61
Indexed bonds (August 2005 series)	3.39[(c)]	2.97	3.30
Estimated 5 year real rate[(d)]		2.97	3.32
Implied 5 year inflation expectation[(e)]		3.04	2.21

Notes:

(a) Based on daily closing quotations as published by the Reserve Bank of Australia. The Commission finalised its calculations of WACC for purposes of the *Draft Decision* on 9 August 2000.

(b) Based on daily closing quotations as published by the Reserve Bank of Australia. The Commission finalised its calculations of WACC for purposes of the *Final Decision* on 6 September 2001.

(c) Epic calculated this as the average rate for the eight weeks to 1 March 1999.

(d) Interpolations based on indexed bond figures.

(e) Inferred from the difference between nominal and real interest rates over the corresponding period using the Fisher Equation, $(1+i^r) = (1+i^n)/(1+CPI)$, where: i^r = real interest rate, i^n= nominal interest rate and CPI = inflation rate.

Epic adopted the average of 5-year indexed bonds over the eight-week period to 1 March 1999 (3.39 per cent) grossed up for inflation (2.5 per cent) to establish a risk-free rate of 6 per cent.

The Commission considers that the term associated with the risk-free rate should coincide with the five-year duration of the initial access arrangement period.[72] Although, in theory, an on-the-day rate is considered the best indication of the opportunity cost of capital at any point in time, the Commission accepts that there is some merit in averaging rates over a short period to abstract from day-to-day market volatility. The *Draft Regulatory Principles* proposes the use of a 40-day moving average of the relevant bond rates covering the period prior to the decision analysis. The Commission has adopted this approach for the present analysis. The results at *Final Decision* stage are a risk-free rate of 5.61 per cent and a real risk-free rate of 3.32 per cent.

While the inflation rate is not an explicit parameter in the WACC estimation, it is an inherent aspect of the nominal risk-free rate and cost of debt parameters. It is fundamental to deriving real rates of return, which are used in the target revenue and economic depreciation calculations. It is also an important determinant of the effective tax liability. Epic applied a rate of 2.5 per cent in all of its analysis.

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72 ACCC, Access arrangements proposed by Transmission Pipelines Australia Pty Ltd and others, *Final Decision*, 6 October 1998, p. 51.

An indication of the rate of inflation anticipated by financial markets is provided by the difference between the nominal bond rates and rates for inflation-indexed bonds for the same term. The indexed bond series have maturity dates that do not correspond to current five or ten-year bond rates but the corresponding figures are readily derived by interpolation and are shown in Table 2.10. These figures represent the real risk-free rate corresponding to the current nominal risk-free rate, based on the five-year bond yield. They indicate that the current expectation of inflation (f) over the initial regulatory period is 2.21 per cent.

The Commission will use this market-derived inflation rate in its calculations. Official forecasts of inflation are inevitably a little out of date, may be subject to institutional bias[73] and do not necessarily relate to the access arrangement period under consideration.

Accordingly, the Commission considers that Epic's revenue requirement for the access arrangement period should be recalculated using a forecast rate of inflation of 2.21 per cent and observed inflation rates where this is appropriate.

Debt margin and cost of debt

Epic proposed that the appropriate margin for the cost of debt is 120-150 basis points above the relevant risk-free rate and noted that the Commission had adopted 120 basis points in the Victorian *Final Decision*.[74]

The lending margin is essentially an empirical matter. In the Victoria *Draft Decision* the Commission proposed a debt margin of 80 basis points. However, in the period following the release of the *Draft Decision* there was evidence that margins might have increased because of the then growing uncertainties in global financial markets. On the basis of comments by financial institutions, the Commission adopted an assumed debt margin of 120 basis points in the *Final Decision*.

The Commission notes the recent decision by the Office of the Regulator General (ORG) to increase the debt margin from 1.20 to 1.50 for Victorian electricity distributors, in light of current information from capital markets.[75] The ORG accepted evidence provided in submissions and by market practitioners that a debt margin of 1.20 per cent might understate the benchmark borrowing costs for an efficiently financed electricity distributor.[76]

The Commission also notes IPART's *Final Decision* on the AGL Gas Network's (NSW) access arrangement in which it determined a range for the debt margin of 0.90-1.10. In arriving at this decision the Tribunal considered recent corporate debt issues as a guide for the current premium on long term debt. IPART found that margins over the

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73 NERA, *A critique of the WACC parameters proposed for Transgrid* – a report for the Commission, March 1999, p. 9.

74 Access arrangement information, p. 33.

75 ORG, Electricity Distribution Price Determination 2001-2005, Vol 1, September 2000, p. 301

76 Ibid, p. 298.

10-year bond rate for five corporate debt issues that took place between June 1999 and March 2000 ranged between 80 and 100 basis points.[77]

In view of this recent analysis, the Commission considers it appropriate to continue using a debt margin of **120 basis points** for its calculations on the MAPS. The Commission will continue to monitor capital markets for further evidence that the debt margin is increasing or decreasing.

The 120 basis point margin in combination with the nominal risk-free rate of 5.61 per cent suggests a nominal cost of debt (r_d) figure of **6.81** for use in the WACC estimate. With an inflation rate of 2.21 per cent, the corresponding real cost of debt (rr_d) is **4.50**.

The market risk premium

The market risk premium is a parameter in the CAPM that, together with the risk-free rate and firm-specific equity beta, determines the expected cost of equity in the business. Epic proposed a range of 6.0-7.0 per cent for the market risk premium. This range has been the conventionally accepted range under the classical tax system. However, as reported in the Commission's Victoria *Final Decision*, Professor Davis has suggested that this may not be in keeping with the forward-looking CAPM framework favoured by the Commission. For example, the more stable inflationary environment now prevailing may mean that the relevant market risk premium is less than has been observed in the past.[78] In the Victoria *Final Decision* the Commission considered the probable range to be 4.5-7.5 per cent and chose to use a mid-value of 6.0 per cent.[79] More recently, in the *Draft Regulatory Principles*, the Commission suggested that a market risk premium of around 5 per cent may be more appropriate given the downward reassessment of the market risk premium over recent years.[80]

The Commission notes that there is new information from studies of financial markets that appear to suggest that the market risk premium is now lower than it has been in past decades. The Commission acknowledges that a downward trend is not fully accepted by market participants and commentators. However, there does appear to be sufficient support to suggest that the market risk premium is now unlikely to be above 6.0 per cent.[81]

The Commission has used **6.0 per cent** in its WACC calculations for the MAPS. This figure is at the bottom end of the range proposed by Epic, but is the upper limit of the range considered appropriate by the Commission in light of new empirical evidence.

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77 IPART, *Final Decision*, Access Arrangement for AGL Gas Networks Ltd – Natural Gas System in NSW, July 2000, p. 65.

78 Professor Kevin Davis's comments presented in *The Weighted Cost of Capital for the Gas Industry* – A report commissioned by the ACCC and prepared by Professor Davis of the University of Melbourne (March 1998).

79 ACCC, Access arrangements proposed by Transmission Pipelines Australia Pty Ltd and others, *Final Decision*, 6 October 1998, p. 53. See also *'Welcome to bull country'*, The Economist, 18 July 1998, pp. 17-19.

80 ACCC, *Draft Statement of Principles for the Regulation of Transmission Revenues*, 27 May 1999, p. 79.

81 For example, see Tro Kortian, *Australian Sharemarket Valuation and the Equity Premium*, September 1998.

The Commission will reconsider the appropriate level of the market risk premium over time as each regulatory decision is made and more empirical evidence becomes available.

Level of debt funding (gearing)

Epic suggested that the proportion of debt funding applicable to the MAPS be 60 per cent.

Hastings Funds Management (HFM) submitted that the Commission should choose a gearing level that relates to the sample of listed entities from which it is also calculating its equity beta. In HFM's view, this level is in the order of 30 to 40 per cent.[82] HFM stated:

> We merely ask the Commission to demonstrate that over a large sample of global electricity and gas utilities, the typical debt/asset ratio is 60 per cent. Unless the Commission chooses to 'data-mine' only those utilities, which meet this test, it will find that the typical ratio is 30 to 40 per cent debt/asset.[83]

The Commission notes Standard & Poor's most recent global financial projections for global power companies. Standard & Poor's estimate that the gearing ratio for global transmission and distribution power companies lies somewhere between 55 and 65 per cent.[84]

The Modigliani-Miller theorem suggests that the relevant cost of capital should be invariant over a broad range of gearing possibilities. Therefore the gearing assumption used for WACC purposes should not be a critical one.[85] The Commission has tested alternative gearing ratios in its model and found these to have a minimal impact on the final revenues and tariffs derived from the model.

Therefore, for the purpose of deriving the WACC for the MAPS, the Commission considers a gearing ratio of **60:40** to be reasonable. This gearing ratio is consistent with the Commission's other regulatory decisions and Standard & Poor's estimate.

Utilisation of imputation credits

The availability of tax imputation credits requires a modification to the standard CAPM/WACC model to reflect the return to shareholders of tax credits associated with their share dividends. Thus, gamma (γ) is included in the WACC calculation to represent the proportion of franking credits that can, on average, be used by shareholders of the company to offset tax payable on other income. The higher the gamma, the lower the required return to equity holders and therefore the lower the estimated WACC. Consequently, gamma becomes an important parameter in the determination of financial returns.

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82 Epic response to *Draft Decision* – Part A, Appendix 3, 10 October 2000, p. 5.

83 Ibid.

84 Standard and Poor's *Rating Methodology for Global Power Companies*, 1999, p. 4.

85 Modigliani and Miller establish that the value of the company is unaffected by its choice of capital structure using the principle of 'no arbitrage'. This principle states that assets that offer the same cash flows must sell for the same price. Thus, a company's borrowing decision does not affect either the expected return on the company's assets or the required return on those assets.

Epic proposed a range of 25-50 per cent for gamma. Submissions to the Commission did not deal with this issue. The Commission's Victoria *Final Decision* and the *Draft Regulatory Principles* note that the analysis of imputation credits is a controversial issue and that there is considerable debate as to the value that should be ascribed. Ultimately, the Commission's choice of gamma will be a matter of judgement based on available empirical evidence.

The Commission has considered a range of 40 to 60 per cent appropriate for the average value of Australian input credits and has used 50 per cent for the value of gamma in all its decisions on gas access arrangements to date.

Epic argued in its response to the *Draft Decision* that applying a gamma of 50 per cent does not take account of the actual value of imputation credits to Epic's existing shareholders. Epic is of the view that because Epic's actual (rather than ideal) tax position is used in the Commission's modelling, consistency requires that the actual value of imputation credits should be used rather than a generic value. Finally, because Epic is 66.7 per cent owned by international shareholders and 33.3 per cent owned by domestic superannuation funds, Epic claims that a gamma of 15 per cent would be more appropriate.[86]

The Commission notes the comments of Dr Martin Lally in his submission to the ORG's electricity distribution price review. Dr Lally stated that adjusting gamma to account for foreign shareholders' inability to access franking credits causes inconsistencies with other elements of the cost of equity. Specifically the betas and market risk premium are calculated on the basis that Australia is completely segregated from the international capital market.[87] According to Dr Lally:

> Once we acknowledge the existence of foreign investors, there are three effects to consider: gamma falls, betas may fall and the MRP falls. Lally (1998a) suggests that the net effect of these three factors is to lower the cost of capital for New Zealand firms, and the same may be true of the question here. Thus, the effect of reducing gamma, but otherwise ignoring the presence of foreign investors, is to raise the cost of capital when the overall effect of foreign investors may be to lower it. This does not seem sensible. If the full effects of foreign investors are to be ignored it seems better to ignore foreign investors completely, and therefore employ a gamma value of 1.[88]

The Commission's view on the relationship between foreign ownership and gamma was clearly stated in its *Draft Regulatory Principles*.[89] There is no well founded basis for discriminating in favour of one type of investor or another, and such discrimination may lead to different regulatory outcomes emerging purely on the basis of ownership. An overseas investor may not be able to take advantage of imputation credits and therefore has a zero gamma, but this may well be offset by different CAPM parameters that would be applicable to the foreign investor. The Commission remains of the view that the relevant benchmark for regulatory purposes should be based on an assumption of private Australian ownership.

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[86] Epic response to *Draft Decision*, 10 October 2000, p. 11.

[87] Lally, Response to 2001 Electricity Distribution Price Review *Draft Decision*, 17 July 2000, p. 2.

[88] Ibid, p. 3.

[89] ACCC, *Draft Statement of Principles for the Regulation of Transmission Revenues*, May 1999, p. 82.

The implication of the Lally argument is that it is inappropriate to 'cherry pick' WACC parameters from a range of different ownership assumptions. Rather, a set of parameters consistent with a single ownership assumption should be used to determine the CAPM benchmark return. If a return based on a range of ownership is considered relevant then the internally consistent CAPM should be used for each type of owner and then averaged. This is research in progress within the Commission. Until it is completed, the Commission has decided to retain the gamma assumption of 50 per cent for its *Final Decision* for the MAPS.

Effective tax rate

Epic used a corporate tax rate of 36 per cent in its WACC conversion formulae. Because infrastructure owners are permitted to accelerate depreciation for tax purposes, tax depreciation may be significantly higher than economic depreciation. This difference between tax depreciation and economic depreciation means that there is an excess tax allowance for depreciation in the early years of a project or pipeline service, resulting in a considerable deferral of any tax liabilities associated with the project. These deferred liabilities serve to improve early cash flows to the investment and improve the internal rate of return of the project above that indicated by the assumed WACC parameters. This effect results in an effective tax rate for the return on equity (T_e) that is less than the statutory rate (T) assumed by Epic for the CAPM/WACC framework. The effective tax rate that has been derived from the Commission's cash flow model is approximately 11.3 per cent.

In the CAPM/WACC equations there is an issue as to whether to use the statutory tax rate or effective tax rate. This issue becomes irrelevant in the post-tax regulatory framework adopted by the Commission, as taxes are calculated on an 'as you go' basis. This involves using a post-tax WACC directly available from CAPM estimates to reflect the return on assets and to capture the impact of taxes in the cash flows. Such taxes are simply added, along with other capital costs and operations and maintenance costs, to calculate the target revenue requirement for the business. This approach avoids the need for a special conversion formula and handles tax in a very transparent way.

As the post-tax approach provides full compensation for actual tax liabilities as they occur, it avoids the need to calculate a long-term effective tax rate and problems generated by post-tax returns diverging from market rates over time. As far as the business is concerned, the post-tax approach would remove any risks associated with future tax liabilities and provide a return always commensurate with market requirements.

Because the Commission has adopted a post-tax regulatory framework, it is necessary to carry over aspects of historic financial accounts that impact on post-tax returns likely to be achieved in the future. Therefore, it is important that the residual asset value for tax depreciation be transferred to the post-tax framework and that tax depreciation concessions that can be used to offset future taxes are accounted for in regulated revenues.

To the extent that tax depreciation claimed in previous years may not have been fully exhausted in the reduction of tax liabilities, the amount will still be available (as a carried-forward tax loss) to reduce future taxable income. This carried forward tax loss

is not recorded in Epic's statutory accounts and therefore needs to be estimated. Operating profit is recorded on the basis of book depreciation. It differs from taxable profit/loss by the difference between tax depreciation and book depreciation. Hence, taxable profit is estimated by reducing operating profit by the amount by which tax depreciation exceeds book depreciation estimates. For the period up to 31 December 2000 estimated taxable profits were all negative, resulting in an adjusted carried forward accumulated tax loss of $123.8 million.

Identifying available tax concessions (as a carried-forward tax loss) in Epic's cash flows ensures that Epic receives an allowance for taxes over the access arrangement period in accordance with its (concession-inclusive) tax liability for the period.

Beta and risk

The risks faced by any business can be described as either systematic (non-diversifiable) or non-systematic (diversifiable).

Systematic risk

Systematic risk is that risk that can not be eliminated through a well-balanced and diversified portfolio. This risk is generally market related and is measured with respect to the financial market as a whole.

The CAPM provides for systematic (or non-diversifiable) risk through the equity beta, a statistical measure that indicates the riskiness of one asset or project relative to the whole market (usually taken to be the Australian stock market). The market average being equal to one, an equity beta of less than 1 indicates that the stock has a low systematic risk relative to the market as a whole. Conversely, an equity beta of more than one indicates that the stock has a relatively high risk.

Where an equity beta is calculated for a particular company, it is only applicable for the particular capital structure of the firm. A change in the gearing will change the level of financial risk borne by the equity holders. Hence the equity beta will change. It is possible to derive the beta that would apply if the firm were financed with 100 per cent equity, known as the 'asset' or 'unlevered beta'. This enables comparison across companies with different capital structures. The analyst can then calculate the equivalent equity beta for any level of gearing desired. This technique is known as 're-levering' the asset beta.

Non-systematic (specific) risk

Non-systematic risks are specific or unique to an asset or project and may include asset stranding, bad weather and operations risk. Such risks by their nature are specific and need to be assessed separately for each access arrangement. Importantly, specific risks are independent of the market. For an investor, exposure to the specific risk related to an asset can be reduced or countered by holding a diversified portfolio of investments. Consequently, specific risk is not reflected in the equity beta parameter of the CAPM.

A matter of significant debate in the Commission's assessment of the Victorian access arrangement was the treatment of specific (diversifiable) risk. At the time it was suggested that an allowance for specific risk could be accommodated via a higher beta in the CAPM formulae. However, as discussed above, the equity beta is meant to

reflect only market related or non-diversifiable risks. Consistency with the CAPM framework therefore requires that specific risks be factored into projected cash flows rather than the cost of capital. The Commission indicated in its *Draft Statement of Regulatory Principles* that this is the approach that the Commission will normally adopt with respect to identified and quantified specific risks.[90] This is consistent with the ORG's assessment, as stated in its first consultation paper for the 2003 review of gas access arrangements:

> … while events that are unique to particular businesses do not affect the cost of capital, they are not irrelevant. Rather, the price controls should be designed to ensure that the regulated entity expects to earn its costs of capital on average, taking account of all possible events.'[91]

Commission's assessment of Epic's systematic risk (beta)

Epic proposed an asset beta (β_a) range of 0.55-0.70 and an equity beta of 1.18-1.55 for the MAPS.

The Commission determined an asset beta for the MAPS of **0.50** in the *Draft Decision* and an equity beta of **1.16.**

Epic opposed the Commission's adoption of an asset beta of 0.50 in view of the values adopted by the Commission and other regulators in their decisions.[92]

In its initial application, Epic made several observations relating to its perception of the higher risk of the MAPS compared to the Victorian gas transmission system. These included:[93]

- South Australian market growth is static, with limited opportunities available;
- the pipeline is dependent on two customers and is exposed to volatile electricity generation load;
- pipeline sales to generators must compete with imported and coal fired electricity generation;
- long-term gas resources are uncertain;
- it is more likely that the system could be bypassed; and
- no annual revenue adjustment for material changes in operating costs is being requested.

The Commission stated in the *Draft Decision* that it did not consider these factors indicate a higher level of systematic risk for the MAPS compared to the Victorian transmission system. Section 2.5.3 of the Commission's *Draft Decision* outlines numerous submissions that counter Epic's perception of risk stated above.

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[90] ACCC, *Draft Statement of Principles for the Regulation of Transmission Revenues*, 27 May 1999, p. 79.
[91] See page 60 of the ORG's 2003 Review of Gas Access Arrangements, Consultation Paper No 1
[92] Epic response to *Draft Decision*, 10 October 2000, part A, p. 11.
[93] Access Arrangement Information, p. 31.

The Commission noted in the *Draft Decision* that submissions to the Victorian decision suggested that the 'newness' of the regulatory framework introduced perceived uncertainties on the part of investors. Submissions suggested that these uncertainties are a market-related risk and should be taken into account via an increase in the beta value. Whilst this treatment is no longer considered appropriate, the Commission took this argument into account at the time and assessed an asset beta of 0.55 as being appropriate for the Victorian system.

Epic does not agree that the uncertainty associated with what was a new regulatory regime in 1998 has now diminished. According to Epic:[94]

> This is not the belief that is shared by service providers. The changing views of regulators since 1998 (of which the Commission's recent shift to determining rate of return within a post-tax framework is an important example) have added to, rather than diminished investor perceptions of risk in pipeline investments….In these circumstances, the asset beta of the Victorian *Final Decision* remains the minimum of the range of possible asset betas for Australian pipeline systems.

Professor Davis noted in a report prepared for the Commission that:[95]

> The modelling approach adopted by the ACCC has shifted from a "pre-tax real" to a "post-tax nominal" approach. This, in itself, is not a source of "regulatory risk" since any post-tax nominal rate of return can be converted into a pre-tax real rate of return, and the modelling replicated within a pre-tax real framework. If there does exist "regulatory risk" there is no obvious reason to believe that such risk would have a systematic element to it, which would warrant adjusting the underlying asset beta.

The Commission also noted in the *Draft Decision* the findings of a report prepared by Professor Davis for the South Australian Independent Pricing and Access Regulator (SAIPAR) on the WACC proposed by Envestra Limited for its distribution network in South Australia. Like Epic, Envestra[96] argued for a higher WACC than that for the Victorian distribution network on the basis of:

- slower market growth;
- a more concentrated customer base and therefore greater variability of demand; and
- greater competition from alternative fuel sources.

Professor Davis considered that none of these arguments provided any rationale for assuming greater systematic (non-diversifiable) risk,[97] and concluded that there would appear to be no obvious reason to assume a higher asset beta for the South Australian market than for Victoria.[98]

Epic disputed the relevance of Professor Davis' report to the Commission's assessment of the MAPS access arrangement on the basis that it ignores the fundamental difference

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94 Epic response to *Draft Decision*, 10 October 2000, part A, p.12.

95 Professor Davis, *Report on Asset and Debt Beta for MAPS*, 20 August 2001, p.2.

96 Envestra Limited, Access Arrangement Information for the South Australian Distribution System, 22 February 1999, Appendix B, p. 4.

97 Professor Davis, *The Weighted Average Cost of Capital for Access Arrangements for Envestra* – A Report prepared for the SAIPAR, 20 October 1999, p. 7.

98 Ibid, p. 7.

between a distribution and a transmission system. Epic argued that the major risk differences between the distribution and transmission systems in South Australia, are;

- the exposure of the MAPS to electricity generation load;
- the MAPS reliance on South Australia's few large industrial users, the majority of which are connected directly to the MAPS; and
- the risk of bypass.[99]

In response, Professor Davis stated that:[100]

> None of those listed [above] appear however to be relevant to assessing the systematic risk of the underlying asset (as opposed to its total risk). Unless cogent arguments can be advanced that such factors affect the degree of covariation between returns on the project and returns on the market portfolio, they are not relevant to determination of the asset beta. It is appropriate that, where relevant, such factors find reflection in the projections of expected demand used in the modelling approach to derive tariffs, or in arrangements for dealing with the possibility of asset stranding.

Likewise, the Commission does not consider it appropriate to compensate Epic for specific risk via a higher asset beta. The risk of partial stranding is a specific risk that could be ameliorated via an accelerated depreciation profile rather than an increased WACC. The Commission adopted this approach in its assessment of NT Gas' Amadeus Basin to Darwin Pipeline (ABDP). In that instance, NT Gas provided sufficient evidence to the Commission to demonstrate that utilisation of the pipeline was likely to be significantly reduced after 2011.[101]

The Commission does not consider the risk of asset stranding to be a market related or non-diversifiable risk. Rather, it is a unique or specific risk, and as such, should be accommodated in the cash flows rather than in the CAPM formulae.

Risk of (partial) stranding

The Commission is aware that since the release of the *Draft Decision*, the likelihood of an alternate gas pipeline into South Australia has increased. Since then the South Australian Government has given its support to a proposal by the South East Australia Gas (SEAGas) consortium comprising Origin, Australian National Power and SAMAG to build a pipeline from Victoria to Adelaide. The likelihood of this project proceeding may have been strengthened recently by reports that Origin Energy has made major gas discoveries (Thylacine and Geographe) in the Otway Basin.[102] However, recent press reports suggest that the SEAGas proposal is only one of several to build pipelines to South Australia.[103]

One of the alternatives is Epic's own proposal to build a pipeline from Darwin to Moomba. This pipeline would transport gas from the Timor Sea to Moomba, and on to Adelaide via the MAPS. Epic has stated that the MAPS would receive a multimillion-

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[99] Epic, Response to *Draft Decision* – Part A, 10 October 2000, p. 10.

[100] Professor Davis, *Report on Asset and Debt Beta for MAPS*, 20 August 2001, p.2.

[101] See ACCC, *Draft Decision* Access Arrangement proposed by NT Gas Pty Ltd for the Amadeus Basin to Darwin Pipeline, p. 2 May 2001.

[102] The Age, p. 4, *Origin confirms big Otway gas discovery*, 24 May 2001.

[103] Herald Sun, p. 27, *Esso, BHP eye gas link*, 22 May 2001.

dollar upgrade as part of Epic's plan to transport gas into South Australia from the Timor Sea.[104] Therefore, although it is unclear at this stage which project might proceed, it is clear that the origin of alternate gas supplies (that is, Victoria or Timor Sea) will have very different consequences for the future utilisation of the MAPS in the short to medium term.

While a pipeline from Victoria to South Australia is looking increasingly likely, the current access dispute under the SA *Natural Gas Pipelines Access Act 1995* indicates that there is insufficient capacity on the MAPS to meet current requirements.[105] Moreover, it is apparent that demand for capacity on the MAPS from 2006 is in excess of total capacity. This is the case, even with the expiration of the existing haulage agreements that account for the vast majority of current throughput on the MAPS. In its submission in response to the Commission's *Draft Decision* of 16 August 2000, TXU Trading states that;

> … access proposals have been submitted for contracted capacity post 2006 which, in aggregate, far exceed the existing capacity of the MAPS pipeline. The approximate 380 TJ/d firm capacity of the pipeline (as estimated by Epic Energy) does not allow for the implementation of all proposals, which cumulatively request capacity in excess of 600 TJ/d.[106]

The Commission has undertaken its own assessment of the risks facing the MAPS (set out in more detail in Annexure 2 (confidential)). The assortment of risks facing the MAPS extend from positive to negative, and are somewhat offsetting. A great deal of the risk facing the MAPS arises from a variety of infrastructure proposals as noted in Table 2.11.

Table 2.11: Summary of New Infrastructure Investment Proposals in South Australia

Project	Probability	Impact on the MAPS (in isolation)
Electricity Interconnectors		
Murraylink	Certain	Negative
Basslink	Likely	Negative
SNI	Uncertain	Negative
Victoria to SA Pipeline	Likely	Negative
SAMAG stage 1	Uncertain	Positive
SAMAG stage 1+2	Uncertain	Positive
Pelican Point 300MW Augmentation	Highly Likely	Positive
Timor Sea Gas Pipelines	Likely [a]	Positive

(a) in the medium term

[104] The Advertiser, p. 2, *Timor Sea to Provide More Gas,* 9 May 2001
[105] See Submission by Energy SA of 29 June 2001 concerning MAPS
[106] See Submission by TXU Trading of 21 May 2001 concerning MAPS

After account is taken of all likely infrastructure developments (including possible pipeline(s) from Victoria to South Australia) the analysis concludes that 348 TJ per day is a fair estimate of likely demand for services on the MAPS in the 2001-2006 timeframe and beyond. While there is some probability that demand for services might be less than 348 TJ per day, the Commission is of the view that there is a corresponding probability that demand could exceed 348 TJ per day. Epic could take advantage of higher than expected demand through the sale of IT services and non-specified services that could include a capacity charge.

In the medium term, the Commission considers that the MAPS faces a very low risk of stranding, especially with the likely development of Timor Sea gas and the extra load this would bring to the MAPS.

Even if demand for gas supplies into South Australia is lower than expected in the future, it is not clear that demand for services on the MAPS would decline. The MAPS is a mature asset with significant accumulated depreciation. As such, tariffs on the MAPS should be significantly below tariffs on a new pipeline. Therefore, all other things being equal, the MAPS should attract demand in priority to a new pipeline.

Although the Commission considers that 348 TJ per day is appropriate in view of the future risk profile facing the MAPS, Epic is able to seek an early review of the access arrangement should it believe such a review is necessary (section 2.28 of the Code).

In addition to assessing the level of systematic risk facing the MAPS, the Commission has relied on a combination of empirical evidence and regulatory precedence in setting an asset beta of 0.50.

Empirical evidence

In late 1999, Epic engaged the Brattle Group to determine an appropriate cost of capital for the Dampier to Bunbury Natural Gas Pipeline. The Brattle Group used data on gas transmission companies traded in the US to estimate the cost of capital for a gas pipeline in Australia that is owned by Australian investors.[107] Asset betas for five publicly traded US pipeline companies were estimated, and ranged from 0.46 to 0.72. The Brattle group proposed the arithmetic mean of this range, 0.58, as a reasonable and supportable estimate of an asset beta for an Australian transmission pipeline.[108]

Epic is of the view, that in the absence of other empirical estimates, an asset beta of at least 0.58 is appropriate for the MAPS.[109] In fact, Epic proposed that an additional 5 to 10 per cent be added to the cost of capital to account for the illiquidity discount in valuing businesses without traded shares, as compared with their publicly traded counterparts.[110]

In response to this last point, the Commission notes that Epic's owners are all publicly listed on Australian and overseas stock exchanges. Thus, investors (shareholders) can

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[107] The Brattle Group, *The Cost of Capital for the Dampier to Bunbury Natural Gas Pipeline*, October 1999

[108] Epic response to *Draft Decision*, 10 October 2000, Part A, p. 13.

[109] Ibid, p. 13.

[110] Ibid, p. 14.

trade the stock freely. This argument also appears to imply that Epic's current financing arrangements may be inefficient. In the Commission's view, it is not the role of the regulatory framework to reward inefficient financing decisions. The Commission notes that the ORG reached a similar position on this matter in its *Electricity Distribution Price Determination 2001-2005*.[111] In addressing Epic's claim Professor Davis stated that:[112]

> This suggestion is equivalent to the inappropriate argument that the cost of capital for an operating division of a listed company should be increased above the company's cost of capital to reflect the fact that the operating division does not have listed shares. … the critical issue in assessing the cost of capital is the return required by the ultimate providers of funds. Even though the company under consideration is not traded, the funds invested in it are sourced, indirectly, from investors in its listed parent company owners.

A survey of US and UK asset betas was undertaken by the ORG as part of its *Electricity Distribution Price Determination 2001-2005*. The ORG estimated the average asset betas for proxy groups of companies in the UK, US and Australia.[113] The ORG concluded that for a debt beta of zero, the average asset beta for publicly listed energy companies ranged from 0.22 to 0.37 in Australia, 0.19 to 0.40[114] in the UK and between 0.15 to 0.35[115] in the US.[116] These estimates would be slightly higher with a debt beta of 0.06, as has been assumed by the Commission. However, the resultant betas would remain substantially lower than the 0.58 per cent proposed by the Brattle Group.

A recent study undertaken by NERA on international regulated rates of return found that an asset beta of around 0.50 is consistent with asset betas set by regulators in the UK. NERA stated:

> Explicitly reported asset betas in the UK and those implicit (given assumed regulatory gearing ratios) would appear to be around or less than 0.5. This is consistent with the Australian average of 0.48.[117]

As part of his analysis of beta for the Commission, Professor Davis analysed beta information (published by Amex and Bloomberg) for utility companies listed on US stock exchanges described as having gas distribution/transmission activities. Professor Davis concluded from this analysis that an asset beta of 0.5 for the MAPS does not appear unreasonable:[118]

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[111] ORG, Electricity Distribution Price Determination 2001-2005, Vol 1, p. 280.

[112] Professor Davis, *Report on Asset and Debt Beta for MAPS*, 20 August 2001, p.2.

[113] Equity betas were provided by Bloomberg (US,UK, Aust), Ibbotson (US), the London Business School (UK) and the Australian Graduate School of Management Risk Measurement Service(Aust).

[114] Figures are for electricity transmission and distribution.

[115] Figures are for electricity distribution.

[116] The location of the averages within these ranges is dependent upon which adjustment (eg. Blume, Vasicek) was considered appropriate. For a detailed discussion of these adjustments, see ORG's Electricity Distribution Price Determination 2001-2005, Vol 1, pp. 275-9.

[117] NERA, *International Comparison of Utilities' Regulated Post Tax Rates of Return in: North America, the UK and Australia*, March 2001, p.19.

[118] Professor Davis, *Report on Asset and Debt Beta for MAPS*, 20 August 2001, p.3.

> Without wishing to place too much emphasis on those figures (particularly given the disparities between the two sources, and since the companies are not specifically or solely gas transmission companies), it is noticeable that the equity betas have an average of 0.58 or below (depending on the source and method of calculation). Since it must be the case that the asset beta of a company lies below the equity beta, whenever the company is levered, the choice of an asset beta of 0.5 by the ACCC does not appear unreasonable – in the context of this information.

The Commission notes that any comparison of international asset betas is complex and can be significantly affected by adjustment methodologies. Notwithstanding this, the Commission is of the view that the international empirical evidence suggests an asset beta of not more than 0.50.[119]

Regulatory precedence

The Commission notes that its proposed asset beta of 0.50 for the MAPS is consistent with recent regulatory decisions in Australia. Table 2.12 compares the asset betas established by Australian regulators in respect of transmission and distribution gas and electricity businesses over the past three years.

Table 2.12 Comparison of Asset Betas

Regulatory Decision	**Asset Beta**
OFFGAR – Dampier to Bunbury NGP (June 2001)	0.60 [(a)]
ACCC – Moomba Sydney Pipeline (Dec 2000)	0.50
OFFGAR – Parmelia Pipeline *Final Decision* (Oct 2000)	0.65 [(a)]
ORG – Vic Electricity Distribution (Sept 2000)	0.38
ACCC – Moomba Adelaide Pipeline (Aug 2000)	0.50
IPART – AGLG GN *Final Decision* (Jul 2000)	0.40-0.50
NTUC [(b)] – PAWA Revenue Determination (Jun 2000)	0.50
ACCC – Central West Pipeline (Jun 2000)	0.60
NTUC – PAWA Revenue Determination (Mar 2000)	0.50
ACCC – SMHEA Transmission Network (Feb 2000)	0.30-0.50
ACCC – Transgrid (Jan 2000)	0.35-0.50

[119] Data from the Australian context is limited, however the Commission notes the asset betas of the few relevant publicly listed Australian companies: Alinta Gas (0.30), APT (0.38), Envestra (0.10) and United Energy (0.53). Asset betas were derived from equity betas and gearing ratios using the formula: Ba = Be (1-D/V). The capital structure of Envestra involves stapled securities with equity and debt characteristics which may make these securities unreliable with respect to information on the underlying equity beta. Sourced from Centre for Research in Finance, AGSM Limited, via Commonwealth Securities on 28 August 2001.

IPART – AGL (ACT) Gas Network (Jan 2000)	0.40-0.50
IPART – Electricity Distribution (Dec 1999)	0.35-0.50
IPART – Albury Gas Company (Dec 1999)	0.40-0.50
IPART – GSN (Mar 1999)	0.4-0.5
ORG – Vic Gas Distribution (Oct 1998)	0.55
ACCC – Vic Gas Transmission (Oct 1998)	0.55

(a) Based on a debt beta of 0.20. 0.65 and 0.60 are approximately equivalent to 0.57 and 0.52 assuming a debt beta of 0.06.
(b) Northern Territory Utilities Commission
(c) SAIPAR's (Envestra) decision is not included as the asset beta was not reported in *Draft Decision*. It is implied by Davis' report that a beta of 0.55 was used.

Based on the Commission's assessment of the systematic risk facing the MAPS, empirical evidence and regulatory precedence, the Commission on balance supports that a value for the asset beta of no greater than **0.50** is appropriate for the MAPS.

In recent decisions the Commission has suggested a range for the debt beta of 0.00 to 0.06. The debt beta is an input to the calculation of the equity beta to reflect the fact that the debt holders take on some of the non-diversifiable risk faced by the business. The Commission proposed a debt beta of **0.06** for the MAPS in the *Draft Decision* and proposes to maintain this parameter for the *Final Decision*.[120] Professor Davis noted in his report on behalf of the Commission that this is reasonable.[121] The resulting equity beta (β_e) for the MAPS is **1.16**.

Rate of return calculation

Table 2.13 summarises the parameter values proposed by Epic in its access arrangement information and by the Commission in its *Draft Decision* and this *Final Decision*.

[120] As stated in Professor Davis' *Report on Asset and Debt Beta for MAPS*, 20 August 2001, it should be noted that the debt beta and the equity beta will be inversely related as they involve a division of the underlying asset beta. Thus if a higher debt beta is proposed, there should be some (marginal) reduction in the equity beta resulting from the levering-delevering formula used to convert asset betas into equity betas).

[121] Professor Davis, *Report on Asset and Debt Beta for MAPS*, 20 August 2001, p.3.

Table 2.13: Comparison of WACC parameters used by Epic and Commission

CAPM parameter	Epic proposal	Commission *Draft Decision*	Commission *Final Decision*
Real risk-free rate (rr_f) (per cent)	3.39	2.97	3.32
Expected inflation rate (f) (per cent)	2.5	3.04	2.21
Nominal risk-free rate (r_f) (per cent)	6.0	6.10	5.61
Cost of debt margin (DM) (per cent)	1.2-1.50	1.20	1.20
Cost of debt (r_d) (per cent)	7.2-7.5	7.30	6.81
Real cost of debt (rr_d) (per cent)		4.14	4.50
Market risk premium (r_m-r_f) (per cent)	6.0-7.0	6.0	6.0
Debt funding (D/V) (per cent)	60	60	60
Usage of imputation credits (γ) (per cent)	25-50	50	50
Corporate tax rate (T) (per cent) [(a)]	36	30	30
Asset beta (β_a)	0.55-0.70	0.5	0.5
Debt beta (β_d)	0.12	0.06	0.06
Equity beta (β_e) [(b)]	1.18-1.55	1.16	1.16

Source: access arrangement information, pp. 39-41 and Commission analysis.

Note:

(a) The corporate tax rate of 30 per cent is an input to the Commission's cash-flow analysis. The analysis indicates that the effective tax rate is 11.3 per cent.

(b) The Commission uses the Monkhouse formula as follows:

$\beta_e = \beta_a + (\beta_a - \beta_d)(1 - r_d/(1+r_d)T).D/E.$

This formula assumes an active debt policy aimed at maintaining a specific gearing ratio.

The parameter values used by the Commission are those considered most appropriate for the MAPS as a stand-alone business. These generally fall near the middle of a narrow range based on the information available.

Table 2.14 shows the WACC figures proposed by Epic in its access arrangement and the Commission in the *Draft Decision* and this *Final Decision*.

Table 2.14: WACC estimates based on parameters given in Table 2.13

	Per cent		
	EPIC proposal	**Commission *Draft Decision***	**Commission *Final Decision***
Nominal cost of equity $r_e = r_f+\beta_e (r_m-r_f)$	13.08-16.84	13.05	12.55
Nominal pre-tax cost of debt (r_d)	7.2-7.5	7.30	6.81
Nominal vanilla WACC $W_n = r_e.E/V + r_d .D/V$	n/a	9.60	9.10
Post-tax nominal WACC $W = r_e [(1-Te)/(1-Te(1-\gamma))].E/V + r_d (1-T).D/V$	6.85-8.78	8.04	7.58
Post-tax real WACC $W_r = (1+W)/(1+f) -1$	4.24-6.13	4.85	5.25
Pre-tax nominal WACC $W_t = r_e /(1-Te(1-\gamma)).E/V + r_d .D/V$	10.7-13.73	9.85	9.41
Pre-tax real WACC (W_{tr})	8.0-10.95[(a)]	6.70[(b)]	7.14[(b)]
Pre-tax nominal WACC (W_{trci}) $W_{trci} = (1+W_{trc}).(1+f)-1$	n/a	9.94[(b)]	9.50[(b)]
Implied tax wedge $= W_{trci} - W_n$	n/a	0.34	0.40

Source: access arrangement information, p. 34 and Commission analysis.

(b) Calculated using forward transformation formula $W_{tr} = (1+W_t)/(1+f)-1$

(b) Based on Commission's cash-flow analysis.

In calculating the post-tax revenue requirement that is consistent with the nominal cost of equity established by the CAPM, the return on capital has been calculated using the nominal vanilla WACC. Taxes have been addressed specifically in the cash flows as they arise.

The nominal vanilla WACC can be defined as the weighted-average cost of debt and equity before any adjustments for tax and inflation. In other words, it represents the most basic post-tax return required by the business after all costs have been paid. That is it covers the post-tax cash flow required by equity holders and interest payments on debt.

The difference between the nominal pre-tax WACC and the nominal vanilla (post-tax) WACC is represented by the 'tax wedge'. The tax wedge has been used by the Commission to normalise tax payments over the life of the assets. This approach was discussed in detail in section 2.7.4 of the Commission's *Draft Decision*.

Given the known shortcomings of the conversion formulae, the Commission has calculated the pre-tax real WACC that is consistent with the post tax nominal cost of equity.

The Commission has found that a pre-tax real WACC of 7.14 per cent is consistent with a post-tax nominal cost of equity of 12.55 per cent.[122] These figures differ from the Commission's *Draft Decision* as a result of current financial market data for the nominal and real risk free rates.

While 12.6 per cent is the expected post-tax cost of equity under the assumptions of the regulatory framework, this is an average expectation. In reality, returns may vary from year to year and can be expected to exceed this benchmark under the incentive provisions of the access arrangement.

Given the resulting scope for variation between the key rates of return, it is important to note the assumptions made to arrive at the Commission's outcome. The model used is strictly in line with the regulatory framework proposed by the Commission. Post-tax cash flows have been assessed over the remaining life of the MAPS. Asset values, O&M costs, capital expenditure and financial parameters are as specified in this *Final Decision*. Capital expenditure beyond the access arrangement period has not been included in the model because the Code requires the Commission to set a rate of return on the value of the assets that form the covered pipeline (capital base), that is, on the value of the existing assets.[123] O&M costs and asset values beyond the access arrangement period have been indexed by the estimated rate of inflation.

Amendment FDA2.3

For the access arrangement to be approved, the Commission requires:

- the WACC estimates and associated parameters forming part of the access arrangement to be amended to reflect the current financial market settings, by adopting the parameters set out by the Commission in Table 2.13 and Table 2.14; and
- the target revenues and forecast revenues to be based on these new parameters.

2.6 Non-capital costs

2.6.1 Code requirements

The Code (sections 8.36 and 8.37) allows 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.

Attachment A to the Code requires the service provider to disclose certain costs in the access arrangement information, unless it would be unduly harmful to the legitimate business interests of the service provider, a user or a prospective user. The costs to be disclosed include wages and salaries, contract services including rental equipment,

[122] While these amounts have been applied to the revenue model, they have been referred to in rounded terms (7.1 and 12.6 per cent respectively) elsewhere in this *Final Decision*.

[123] Code section 8.4(a).

materials and supply and corporate overheads and marketing. The service provider must also disclose gas used in operations. Some disaggregation by zones, services or categories of assets is also required.

2.6.2 Epic's proposal

Epic provided forecast operating costs for the period 1999-2003. The years 2004 and 2005 were not included as Epic initially proposed that the access arrangement period end in 2003. For cash-flow modelling purposes, the Commission has established figures for 2004 and 2005 by CPI indexation of actuals.

Table 2.15: Total operating costs, 1999-2003

Year ending 31 December ($ '000)	1999	2000	2001	2002	2003
Salaries and wages	6386	6642	6908	7183	7471
Other employee costs	607	623	638	654	670
Consultants	695	712	730	748	767
Operations & maintenance	4465	4878	5158	4668	4867
Administration expenses	377	387	396	406	417
Utilities	676	693	711	728	747
Inter-company expenses	2848	2049	1981	1898	1888
Employee incentive scheme	480	499	519	540	562
Less					
Capitalised overhead	378	387	397	407	417
Non-jurisdictional costs	1185	1230	1277	1325	1376
Total operating costs	**14,972**	**14,866**	**15,368**	**15,094**	**15,596**

Source: Access arrangement information, p. 18.

Epic noted that with the exception of fuel gas, costs incurred by Epic in respect of the MAPS are fixed in nature over the short term. Although all fixed costs are to be recovered under the reference tariff, Epic proposed to recover a high proportion of costs through the capacity charge.

Epic noted that it is currently not authorised by its Board of Directors to participate in any marketing or trading activities that would require ring-fencing.[124] Thus, there are no costs associated with these activities.

Epic also stated that it currently operates two pipelines for other parties - the Riverland pipeline (operated on behalf of Origin Energy) and the Liquids Line (operated on behalf of Santos). Epic also owns and operates the Katnook pipeline in south-eastern South Australia. The costs associated with these ventures are captured separately in Epic's accounting system. In addition, Epic stated that it provided gas control centre

[124] Access arrangement information, p. 13.

support services to the Epic Energy Queensland business unit. The costs associated with this service are not captured separately in Epic's accounting system. Epic stated that instead all revenues recovered from the Queensland business unit have been deducted from the operations and maintenance expenses in Epic's revenue requirement calculation for the MAPS.[125]

Epic underwent an organisational restructure from December 1999, resulting in gas control for its various pipelines and certain managerial functions being relocated to Western Australia. The cost estimates provided by Epic pre-date that restructuring.[126]

2.6.3 Commission's *Draft Decision*

The Commission stated in the *Draft Decision* that the forecast non-capital costs proposed by Epic are reasonable, when assessed against widely accepted industry benchmarks.

A widely accepted benchmark for operations and maintenance costs is cost per pipeline length. This indicator was not provided by Epic, but was derived by the Commission and is compared with those for other pipelines in Table 2.16.

Table 2.16: Comparison of transmission pipeline non-capital costs

	$/1 000km ($ million)
NT Gas – ABDP (1999)[(a)]	3.9
EAPL – MSPS (2001)[(b)]	6.1
Epic – Moomba to Adelaide Pipeline System (1999)[(c)]	14.2
TPA – Victorian transmission systems (1998)[(d)]	11.0-16.0

Notes:

(a) NT Gas, *Access Arrangement Information,* 25 June 1999, p. 46.
(b) EAPL, *Access Arrangement Information,* 5 May 1999, p. 65.
(c) Epic, access arrangement, Schedule 1, Attachment A, which provides total pipeline length as 1055.8 in 1998, and from access arrangement information Attachment 1, which states total O&M costs for 1999 as $14.972 million.
(d) NT Gas, *Access Arrangement Information*, 25 June 1999, p.46.

The Commission noted that Epic's operating costs are at the high end of the range of costs presented in Table 2.16, but that this is largely because the MAPS is a shorter and more highly compressed pipeline, particularly in comparison with the MSPS.

The Commission also assessed Epic's forecast operating costs as a percentage of the overall capital assets employed.[127] Typically, this ranges from 2 per cent for an uncompressed pipeline to 5 per cent for a fully compressed pipeline. In Epic's case forecast operating costs are approximately 2.5 per cent of the ORC value calculated by

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125 Access arrangement information, p. 13.
126 Refer Epic letter to customers, 1 December 1999.
127 In the interests of comparison between pipeline systems, the ORC figure may be used as a measure of the value of the capital assets employed.

the Commission in its *Draft Decision*. On this measure, Epic's costs are reasonable. This measure does not include gas used in operations.

2.6.4 Submissions to the *Draft Decision*

TGT stated that for reasons stated in its earlier submission[128] it remains concerned about the level of non-capital costs.[129]

Origin suggested that the proportion of system use gas (SUG) used to operate the pipeline (unaccounted for gas and compressors) should be viewed as an operating expense for Epic.[130] Origin believes that whilst clause 17.1(c) requires Epic to use its best endeavours to minimise the use of SUG, it will, in practice, be extremely difficult for a user to establish that Epic has not complied with this obligation. Instead, Origin proposed:[131]

> The Access Arrangement should compel Epic to pay for system use gas, at a price, which approximates the prevailing Moomba ex-field price. This is the only manner in which to ensure that Epic will use that gas efficiently.

2.6.5 Epic's response to submissions and the *Draft Decision*

In responding to Origin's proposal that Epic should pay for system use gas, Epic argued that its use of system use gas is under the constant scrutiny of executive management in order to ensure maximum efficiency is achieved.[132] According to Epic:[133]

> Needless and inefficient operation of compressor equipment would increase Epic's maintenance costs and increase frequency of overhauls. The imposition of a system requiring Epic to pay for this gas and in some way receive compensation from users could result in outcomes that are not in the interests of any party. Epic rejects the notion that its approach is not efficient.

2.6.6 Commission's considerations

The Commission is satisfied that sufficient incentive lies with Epic to operate its compressors, and hence utilise SUG efficiently. The Commission accepts Epic's proposal that its customers provide SUG for the operation of the MAPS. See section 3.2.3.

Overall, the Commission considers that the forecast non-capital costs proposed by Epic are reasonable, when assessed against widely accepted industry benchmarks. Chapter 4 of this *Final Decision* discusses the use of key performance indicators (KPIs) and performance benchmarks in more detail. It concludes that, on the basis of the available information and based on the KPIs, the operating, maintenance and other non-capital costs for the MAPS are reasonable.

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128 TGT submission, 26 October 1999.
129 TGT submission, September 2000, p. 5.
130 Origin submission, 21 September 2000, p. 24.
131 Ibid, p. 25.
132 Epic response to *Draft Decision*, Part C, p. 5.
133 Ibid, p. 5.

When it reviews the access arrangement, the Commission will consider whether the level of costs continues to be appropriate.

2.7 Forecast revenue

2.7.1 Code requirements

As noted previously, the Code sets out (section 8.4) three alternative methodologies for determining total revenue. The service provider proposed to use a cost-of-service methodology. Total revenue is calculated as the return on the value of the capital base plus depreciation of the capital base plus the operating and maintenance and other non-capital costs incurred in providing its services over the covered pipeline.

2.7.2 Epic's original proposal

Epic stated that it did not anticipate that any revenue would be generated by the sale of the reference service because the capacity of the MAPS is fully committed to users under existing haulage contracts.[134] Epic contended that sales of IT service would be subject to so many external contingencies that it was not possible to predict IT revenues during the initial access arrangement period. Furthermore, Epic submitted that the revenue to be earned under the existing contracts is less than its proposed total cost-of-service requirement.[135]

Epic submitted that the implied cost of service demonstrated that its use of the lower reference tariff, based on contract revenue, is reasonable.[136]

Table 2.17 compares Epic's contract-based revenue requirement with its proposed cost-of-service revenue requirement.

Table 2.17: Forecast revenue, Epic proposal, 1999 to 2003

	Forecast revenue ($m nominal)	
Year ending 30 June	**Contracted revenue**	**Cost of service revenue requirement**
1999	49.9	56.0
2000	51.2	56.1
2001	52.5	57.3
2002	53.9	57.7
2003	55.2	59.0

Source: Table 1 of the access arrangement information, p. 18, as amended in consolidated response to ACCC letter of 30 April 1999.

[134] Access arrangement information, p. 10.
[135] Access arrangement information, p. 10.
[136] Access arrangement information, p. 12.

Pursuant to clause 30.2 of its access arrangement, Epic proposes to escalate tariffs after the first year of the access arrangement period by 95 per cent of the change in CPI in the previous year (to September). As a result, prices to apply after the first year of the access arrangement period would be determined by movements in the general level of prices.

The proposed tariff adjustment mechanism is discussed in section 2.9.1.

2.7.3 Commission's *Draft Decision*

As stated above, Epic did not predict IT revenues during the initial access arrangement period and has not included its share of net revenues from that service in the total revenue. There is a difference between the stated pipeline primary capacity (348 TJ per day), which is firm (that is reliable) capacity, and its stated maximum capacity (418 TJ per day). The difference between the two provides an indication of the margin of capacity available to the service provider to ultimately make available for interruptible use.

In the *Draft Decision*, the Commission did not form a view on whether Epic may have been overly conservative in establishing that margin and whether therefore the capacity for Epic to earn additional revenues from IT service has been understated. At that stage, the Commission intended to review this issue at the commencement of the next access arrangement period on the basis of IT capacity sales between now and then. Several submissions to the *Draft Decision* focused on this issue. The concerns raised are outlined in section 3.1.3.

The Commission proposed a tariff smoothing mechanism of CPI-1.6 per cent to prevent volatility in the reference tariff over the access arrangement period. The Commission also sought further comment on the appropriateness of Epic's proposal that tariffs be escalated each year at 95 per cent of CPI. The Commission indicated that if Epic's proposed tariff adjustment mechanism were to apply in place of a CPI-X mechanism, Epic's revenue requirement in the first year of the access arrangement period would need to be reset such that the NPV of the cost-of-service and escalated revenue streams were equated.

Adjustment for GST impact on inflation

The Commission stated that it would adjust Epic's regulated revenues to account for the impact of the GST on inflation and to ensure that net dollar margins do not increase as a result of GST.[137] The Commission indicated that this adjustment would require the impact of the GST on CPI to be estimated and deducted from the CPI applied to Epic's regulated revenues. The deduction is made because the 'raw' CPI reflects economy-wide changes in cost structures. Regulated businesses like Epic are permitted by regulatory approval to fully recover these changes by passing through the GST in their fees and charges. Epic proposed a pass through of 9.7 per cent, which came into effect on 1 July 2000.

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[137] ACCC, *Price Exploitation and the New Tax System*, March 2000.

The Commission noted that there would be 'double-dipping' if the full, raw CPI increase were applied to regulated revenues, and that the adjustment would not affect relevant rights of users under the existing haulage agreements. The Commission stated that the adjustment would be made after the year of the GST's introduction, as the estimation of the GST impact would be based on actual CPI figures available at that time. The Commission also stated that it would communicate the adjustment to Epic when it is made so that Epic can factor that into the CPI based tariff adjustment mechanism.

2.7.4 Submissions by Epic

In response to the Commission's *Draft Decision*, Epic asked the Commission to explain the basis of the proposed CPI adjustment, particularly the amount that the Commission intends to attribute to the effect of the GST. Epic noted that the expectation of the effect of the GST on inflation has not been realised to the extent initially forecast, and that an increase in the price of petrol has had a significant effect on recent inflation spikes.[138]

2.7.5 Commission's considerations

The Commission has calculated the total cost-of-service revenue that Epic would earn, based on the amendments proposed in this *Final Decision*, and assigned this revenue entirely to Epic's FT service in the initial access arrangement period. In calculating tariffs, the Commission has specified a volume of 348 TJ per day, which is the system primary capacity. This figure represents the capacity most likely to be booked on the MAPS. There is potential for Epic to earn additional revenue through its IT and non specified services.

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[138] Epic, Response to *Draft Decision*, part A, p. 14.

Table 2.18: Forecast revenue, Commission *Final Decision*, 2001 to 2005

	Forecast revenue ($m nominal)			
Year ending 31 December	**COS revenue ACCC *Draft Decision*** [(a)]	**COS revenue ACCC *Final Decision*** [(b)]	**Epic's contracted revenue**	**COS revenue proposed by Epic**
Peak Capacity	393 TJ per day	418 TJ per day	393 TJ per day	393 TJ per day
2001	46.3	25.2[(c)]	52.5	57.3
2002	47.0	51.4	53.9	57.7
2003	47.6	52.5	55.2	58.9
2004[(d)]	48.3	53.6	56.3	60.2
2005	49.0	54.7	57.5	61.4

Source: consolidated response to ACCC letter of 30 April 1999, and Commission calculations
Notes:

(a) Cost-of-service revenue requirement in the Commissions *Draft Decision* was smoothed using a CPI-X mechanism, where X = 1.6 per cent.

(b) The Commission's *Draft Decision* was based on a pipeline of 393 TJ per day, whereas the Commission's *Final Decision* is based on 418 TJ per day, incorporating the recent expansion.

(c) Whilst Epic's forecast for 2001 refers to the full year (1 January 2001 to 31 December 2001), the Commission's *Final Decision* forecast for 2001 refers to the period 1 July 2001 to 31 December 2001 only.

(d) Epic proposed to extend the Access Arrangement period from 2003 to 2005 in its 2 March 2000 lodgement of its Access Arrangement. Epic did not however provide revenue forecasts for 2004 and 2005. The Commission has established forecasts for 2004 and 2005 by applying Epic's proposed revenue escalation formula (that is, 95 per cent of CPI), assuming inflation of 2.21 per cent.

Normalisation of tax payments and revenue smoothing

In establishing the cost-of-service revenue requirement, the Commission has normalised Epic's tax payments over the life cycle of the assets to remove the 's-bend' phenomenon.[139] The objective of normalisation is to ensure that customers do not, as the result of higher tax payments that will need to be made in a later period, have to pay a disproportionately higher charge for services produced by the assets at that time.

To normalise tax liabilities the Commission has included in the post-tax revenue requirement a factor that, in effect, represents additional depreciation (return of capital) that accumulates initially and subsequently reduces when taxes become payable and enter the cash flows. This allowance is calculated as the tax wedge[140] multiplied by the asset base less the net tax liability in each year. This ensures that when taxes enter the cash flows there is no sudden increase in the revenue requirement and therefore

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[139] A detailed discussion of the 's-bend' problem is provided in Attachment B to ACCC, 'NSW and ACT Transmission Network Revenue Caps 1999/00-2003/04', *Final Decision* January 2000, and Attachment C to ACCC, 'Access Arrangement by AGC, Pipelines (NSW) Pty Ltd for the Central West Pipeline, *Final Decision*, June 2000.

[140] Equal to the difference between the nominal vanilla WACC and the nominal pre-tax WACC that has been derived from the Commission's cash flow analysis.

reference tariff. See section 2.7.4 of the Commission's *Draft Decision* for a more detailed discussion of normalisation.

The revenue stream has been smoothed using Epic's tariff escalator of 95 per cent of CPI. Epic argued that this mechanism would allow the reference tariff to stay in line with the escalation of contract tariffs over the access arrangement period.[141] This was discussed at length in the Commission's *Draft Decision*.

Following the release of the *Draft Decision*, Epic provided further information in support of its tariff adjustment mechanism. The Commission's views on Epic's tariff adjustment mechanism are presented in section 2.9.1 of this *Final Decision.* In summary, the Commission proposes to accept Epic's proposal to escalate FT tariffs each year at a rate of 95 per cent of CPI.

2.8 Cost allocation and tariff setting

2.8.1 Code requirements

Section 8.38 of the Code requires that, to the maximum extent that is commercially and technically reasonable, reference tariffs recover all costs directly attributable to the reference service and a fair and reasonable share of joint costs. The Code (section 8.42) requires that a particular user's share of reference service revenues recover costs according to the same principles.

2.8.2 Epic's original proposal

Epic did not propose reference tariffs based on cost of service. Rather, the tariffs proposed in Schedule 4 of the access arrangement were derived from revenue received under existing contracts. To illustrate how the tariffs had been derived, Epic provided the Commission with confidential data on the revenue received under existing contracts.

In its access arrangement information, Epic stated that the majority of total revenue, excluding gas cost, under existing contracts is recovered through fixed capacity charges with the remainder recovered through a commodity charge. Epic proposed that the same proportion be reflected in the proposed reference tariff. Epic stated in the access arrangement:[142]

> The Capacity Charge Rate has been developed to reflect those parts of the Pipeline System that are committed to the delivery of the particular Primary Capacity Quantities of the User. This results in a surcharge being payable (in addition to the Capacity Charge Rate) by the User where the Whyalla Lateral is to be used to deliver Primary Capacity Quantities to one or more Delivery Points in the Iron Triangle Zone (excluding Port Pirie).

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141 Epic Energy response to Submissions Made on the Access Arrangement for MAPS, 1 February 2000.

142 Epic, proposed access arrangement lodgement of 29 June 2001, clause 5.2(a)(viii)(A).

Epic also proposed a rebateable (IT) service, which was altered in the revised access arrangement proposals of 2 March 2000 and 29 June 2001 in favour of a redesigned IT service linked to the incentive mechanism. Epic indicated that it did not consider that the revised IT service would alter its current allocation of costs (revenues). Epic's stated view is that revenues from IT service can not be accurately predicted for the initial access arrangement period.

2.8.3 Commission's *Draft Decision*

The Commission stated in its *Draft Decision* that it was satisfied that the reference tariffs proposed by Epic were consistent with the allocation of revenues Epic currently receives under existing contracts. Further, the Commission accepted Epic's view that at this stage it is unnecessary to contemplate, as a reference service, a distance-based approach to pricing services. The Commission noted that distance-based charging may become appropriate in the future depending on the outcome of commercial negotiations and shifts in the sources of demand and supply. It is an issue that the Commission intends to monitor – see discussion in 2.10 and 3.1.5.

As noted in section 2.7.3, the Commission had not formed a view on the capacity for Epic to earn additional revenues from IT service at *Draft Decision* stage. Rather, the Commission intended to review this situation at the commencement of the next regulatory period on the basis of IT capacity sales between now and then.

The Commission proposed an amendment, requiring that the reference tariff be derived by applying the system primary capacity to the cost of service revenue resulting from the amendments proposed by the Commission in the *Draft Decision*.[143]

2.8.4 Submissions from interested parties

TGT submitted that it is incorrect to allocate total revenue (after deduction of revenue earned from the FT commodity charge rate and the Whyalla lateral surcharge) to the FT service only, and not the IT service. TGT stated that it is incorrect to assume that revenue would not be earned from IT (firm on the day) service or IT (interruptible on the day) service. This assertion is based on the following points made by TGT:[144]

> First, existing shippers utilise more than 82% of their current contract reservations. During the past 12 months Epic has transported for the existing shippers approximately 2 PJ of gas over and above a pro rata allocation of proposed System Primary Capacity between TGT and Origin of 198 TJ for TGT and 125 TJ for Origin.
>
> Secondly, it is very likely that TGT will contract IT (interruptible on the day) Service to supplement its current haulage entitlements during the current access period.
>
> Thirdly, a new 500 MW gas fired power station at Pelican Point which requires up to 90 TJ per day of gas is being progressively commissioned over the next four months. TGT can only assume that this will result in IT (firm on the day) Services and IT

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[143] ACCC, *Draft Decision*, Access Arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System, 16 August 2000, p. 87.

[144] TGT submission, September 2000, p. 6.

> (interruptible on the day) Services being contracted notwithstanding the second expansion of the pipeline of 25 TJ.
>
> In determining the allocation of Total Revenue between FT and IT revenue it is not relevant (even if it were true) that IT Services are unlikely to be sold during the first access period because of the existing haulage agreements. It is relevant that the existing shippers current contractual entitlements cannot be met through the provisions of the FT Service only. However, it seems clear that IT Services are likely to be sold during the first access period.

Origin submitted that revenue from some non-specified services should be included in the allowed revenue from reference services. Origin argued that where it can be shown that some non-specified services are required by users to allow them to provide normal services to customers, the revenue from such services should be taken into account in setting the reference tariffs.[145]

Several submissions commented on the structure of tariffs, and in particular the need for distance-based and back haul transmission charges.

WMC submitted that it is currently considering two gas substitution and power generation projects in South Australia that would require back haulage along part of the Moomba to Adelaide pipeline system. Both projects would commence prior to the expiry of the proposed access arrangement. Consequently, WMC suggested that Epic be required to include back haul rates in the reference tariffs.[146]

WMC also noted the Commission's general support for distance-based tariffs, and Epic's use of distance based charging in its proposed access undertaking for the Dampier to Bunbury gas pipeline system in Western Australia.[147] In relation to the MAPS, WMC stated:[148]

> It would be obviously unfair and quite uneconomic for WMC to have to pay the same tariff as a full haul customer in Adelaide for any off take from Compressor Station 2. For this reason we request that Epic Energy be required to express the reference tariff on a distance-dependent basis. This should be straight-forward for them, given their use of this form of tariff in Western Australia.

The South Australian Government is also of the view that the access arrangement should include a back haul service. It stated:

> It is particularly important that a back haul service is available, given there appears to be no specific back haul tariff for Wasleys to Port Pirie in the current Access Arrangement proposal. This is of concern as it may be required for the proposed Port Pirie magnesium refining plant. [149]…The South Australian Government believes it is undesirable to wait for a new pipeline before consideration is given to back haul services.[150]

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145 Origin, Response to ACCC *Draft Decision* in respect of the access arrangement for the Moomba-Adelaide Pipeline, 21 September 2000, pp. 8-9.

146 WMC submission, 25 August 2000, p. 2.

147 Ibid, p. 2.

148 Ibid, p. 2.

149 SA Government submission, 8 September 2000, p. 9.

150 Ibid, p. 11.

The South Australian Government also drew on US evidence that pipeline operators are required to offer unbundled rates, including those for back haul and exchange. Typically these are charged at lower than forward-haul rates, reflecting the impact of such services on the pipeline system.[151]

The South Australian Department of Industry and Trade (SADIT) believes that the inclusion of a mechanism for deriving distance based tariffs and back haul services is vital for the completion of a national gas pipeline network.[152] SADIT also suggests that these services are necessary for a variety of industrial projects planned for South Australia, in regions other than Adelaide.[153]

Consultation forum

The issues of back haul and distance based tariffs featured prominently at the Commission's pre-decision consultation forum in Adelaide on 2 November 2000. Representatives from WMC, SAMAG and the South Australian Government all expressed a preference to include distance based and back haul tariffs in the access arrangement rather than a trigger mechanism.

Representing WMC, Mr Robert Booth suggested that it would be preferable to include a 'complicated set of tariffs, including distance dependent, back haul tariffs, interruptibility tariffs, generally aimed at coping with a general range of events and not so much a trigger event…'[154] Mr Booth also noted that Epic had introduced distance dependent tariffs for the DBNGP in the form of (ten) zonal tariffs. Mr Booth considered that given this experience, it would not be difficult for Epic to 'convert reference tariffs into distance dependent tariffs and to offer [a] distance dependent back haul tariff for the Moomba to Adelaide Pipeline'[155]

Mr Adam Wheatly, representing SAMAG noted that SAMAG would be interested in obtaining part haul and potentially back haul services along the MAPS. Mr Wheatley also suggested that a number of new industries are going to be encouraged in South Australia, and may be located in the north of the state. Mr Wheatley stated that for these projects to proceed, access to low energy costs, competitive energy costs and transportations is going to be very important.[156]

Mr Kym Jervois, representing the South Australian Government, re-stated the government's opposition to a trigger mechanism, claiming that 'such an arrangement would increase the level of regulatory uncertainty'[157] which could mitigate extra sources of gas supply into South Australia. Mr Jervois also suggested that including a

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151 SA Government submission, 8 September 2000, p. 11.
152 SA Department of Industry and Trade submission, 13 November 2000, p.2.
153 Ibid, p. 1.
154 Transcript of proceedings, ACCC pre-decision consultation forum – MAPS access arrangement, p.22.
155 Transcript of proceedings, ACCC pre-decision consultation forum – MAPS access arrangement, p.21.
156 Ibid, p.24.
157 Ibid, p.25.

back haul tariff is consistent with the Code because the Code allows for a matrix of reference services, not just one, to be included in the access arrangement.[158]

2.8.5 Epic's response to submissions and *Draft Decision*

Epic accepted the Commission's amendment in relation to deriving the initial FT reference tariff by allocating allowable revenue across system primary capacity. Epic stated that if the allowed revenue in the *Final Decision* is less than Epic's contracted revenue, then the tariff components would be pro rated down.[159] While none of Epic's revenue requirement will be allocated to IT service for this access arrangement, Epic's IT tariff is equivalent to the FT tariff plus a 15 per cent premium. The IT tariff has no capacity component, that is, commodity charge only. While the IT service is inferior to FT service, the premium is appropriate to ensure that the appropriate price signals are sent to customers, and maximum utilisation of the pipeline.

Epic's principles for part haul and back haul services

The Commission discussed with Epic the possibility of inserting pricing principles for part haul and back haul services. Epic went as far to provide the Commission with a document outlining such pricing principles. However, Epic also stated that:

> …we would only contemplate this if the ACCC starts to take a different attitude to among other things, WACC. These services are about looking into the future beyond the existing contracts, yet the ACCC in its *Draft Decision* did not look into the future in determining the risk component of WACC and only look at the regulatory period and took into account the MAP was fully contracted and hence reduced the risk component of WACC.[160]

According to these principles, a part haul tariff would be determined by the amount of existing firm forward full haul capacity 'sterilised' by the provision of the part haul service. This is not a linear relationship, and would be established on a case by case basis.

A back haul tariff would be determined as that proportion of the tariff for firm forward full haul service (less the BH rebate) as the distance of the back haul service bears to the full distance of the MAP. The tariff for the FT users would then be reduced to match the revenue from the back haul service, less the 20 per cent adjustment amount referred to in the 'BHT rebate,' which would be retained by Epic.

2.8.6 Commission's considerations

The Commission acknowledges the concern raised by TGT in relation to the potential for Epic to frequently receive revenues in respect of capacity over 323 TJ per day (not including the most recent expansion of the pipeline). However, the Commission believes that the potential for revenue to be earned from Epic's IT and non specified services is appropriate to balance any downside risk facing the MAPS.

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[158] Transcript of proceedings, ACCC pre-decision consultation forum – MAPS access arrangement, p.25.

[159] Epic, Response to ACCC *Draft Decision*, Part A, p.15.

[160] Email to Commission from Epic of 8 April 2001

Therefore, the Commission considers it appropriate at this time that Epic's revenue requirement be allocated to the FT service only. However, the Commission will monitor the sale of interruptible services and capacity over 348 TJ per day over the access arrangement to assess whether its current approach to allocating revenue remains appropriate.

The Commission is unable to conclude whether back haul or part haul services meet the test set out in section 3.3 of the Code at this time.[161] Furthermore, until more is known about the location of a possible second pipeline and therefore the nature of the back haul service in question, it would be very difficult to allocate any revenue to a back haul reference tariff. See section 3.1.5 for further discussion.

Amendment FDA2.4

For the access arrangement to be approved, the Commission requires Epic to amend the reference tariff proposed in Schedule 4 of the access arrangement. The amendment must have the effect that the FT tariff:

- is initially derived by applying the system primary capacity (as amended in Amendment FDA3.2) to the revenue figure set out in Table 2.18 in the 'COS revenue ACCC *Final Decision'* column. Subsequent tariffs must be calculated by applying the approved escalator of 95 per cent of CPI;
- comprises a capacity charge and a commodity charge set to the same proportion used in Epic's Access Arrangement Information of 11 September 2000.

Amendment FDA2.5

For the access arrangement to be approved, the Commission requires Epic to set the IT tariff to the FT tariff multiplied by 1.15. The resultant IT tariff will not include any capacity charge.

2.9 Tariff path and incentive structure

2.9.1 Tariff Path

The Code (section 8.3) gives discretion to service providers in how to vary reference tariffs during an access arrangement period. For example, tariffs may change according to a 'price path' approach where tariffs follow a path determined at the start of the period. The price path is adjusted at the start of the next period. The alternative method specified in the Code is the 'cost of service' approach. Tariffs are set according to forecast costs and are adjusted throughout the access arrangement period in the light of actual outcomes. The Code allows variations or combinations of these approaches.

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[161] See discussion in section 3.1.5.

Epic proposed an initial tariff to apply in the first year of the access arrangement period, as set out in Schedule 4 of the access arrangement.

According to clause 5.2(a)(xii):

> The Total Revenue Requirement and the resulting Reference Tariffs will escalate annually with inflation pursuant to clause 30.2 of this Access Arrangement consistent with the provisions of the Existing Transportation Agreements.

Clause 30.2 states:

> On each January (commencing in 2000) all of the charges set out in the Tariff Schedule will be adjusted by 95 per cent of the variation (expressed as a percentage) in the CPI for the 12 month period ending on the previous 30 September.

The charges set out in the Tariff Schedule are in three groups, comprising 'Reference Service – FT Service', 'Rebateable Service – IT Service' and 'Other Charges'. The FT charges comprise capacity and commodity charges, the 'Whyalla Lateral Surcharge', the monthly 'FT Customer Charge' and excess imbalance, zone variation and default charges. The IT charges comprise the commodity charge, the monthly 'IT Customer Charge' and excess imbalance and default charges. The 'Other Charges' comprise FT and IT service application fees and three EBB charges.

The Commission proposed in its *Draft Decision* to reject Epic's proposal for a 95 per cent of CPI tariff escalator because a case for escalation of non-FT service charges had not been put by Epic.

The Commission calculated that an X factor of 1.6 per cent was required to smooth Epic's revenue requirement over the access arrangement period, whilst maintaining the 13 per cent post-tax nominal return on equity determined by the Commission.

The Commission indicated that if Epic's proposed tariff adjustment mechanism were to apply in place of a CPI-X mechanism, then the revenue requirement in the first year of the access arrangement period would need to be reset such that the NPV of the cost-of-service and escalated revenue streams were equated.

The SAGEUG submitted that it supports the CPI-X tariff escalator that was proposed by the Commission in the *Draft Decision*. The SAGEUG stated that tariffs and annual escalation factor should not be based on current contracts providing a guaranteed income stream until 2005.[162]

Epic provided the Commission with a worked example of how the reference tariff would be calculated from the Commission's revenue determination. This was provided to the Commission on a confidential basis.

Epic requested that the Commission confirm that the reference tariff may be escalated in accordance with the approved escalator rather than calculated each year on the basis of the escalated allowed revenue for that year.[163]

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162 SAGEUG Submission, 12 September 2000, p. 1.
163 Epic, Response to ACCC *Draft Decision*, Part A, p. 15.

Commission's considerations

Based on the confidential worked example provided by Epic, the Commission is satisfied with the approach proposed for calculating the reference tariff from the Commission's revenue determination, and accepts Epic's tariff escalator proposal of 95 per cent of CPI for the duration of this access arrangement.

The Commission has revised the revenue requirement in the first year downwards by $1.7 million, such that the NPV of the revenue stream over the regulatory period (assuming Epic's tariff escalator) is equal to the NPV of the Commission's cost of service revenue stream over the regulatory period.

The tariff escalator applied should lead to tariffs that cover the costs including appropriate return for an efficient pipeline operator. In the longer term, the impact of depreciation should be to reduce the level of efficient tariffs. While the Commission has accepted Epic's proposed escalator for this access arrangement, the Commission considers that tariffs on the pipeline should be trending downward over time. Therefore, in the absence of capital expenditure it is likely that an escalator of 95 per cent of CPI will be too high in the next access arrangement period.

2.9.2 Incentive Mechanism

The Code (section 8.44) provides for the regulator to require or approve an incentive mechanism. Such a mechanism enables a service provider to retain all or a share of any returns from the sale of a reference service that exceeds the level expected at the beginning of the access arrangement period. This mechanism is particularly to operate where the increased returns are attributable, at least in part, to the service provider's efforts. The incentive mechanism should encourage the service provider to increase sales volumes, minimise costs, develop new services, and undertake only prudent investment (section 8.46). The mechanism should be designed to ensure that users gain from any increased efficiency, innovation and improved sales volumes. The mechanism may include:

- specifying that tariffs are based on forecast, not realised, values of variables;
- setting a target revenue and specifying how revenue in excess of this is to be shared between the service provider and users; and
- establishing a rebate mechanism for rebateable services that does not provide a full rebate to users.

In its *Draft Decision*, the Commission proposed an amendment to give effect to the incentive mechanism as proposed by Epic in its 2 March 2000 lodgement. However, the Commission stated that it would wish to encourage any realistic refinement of or revision to the incentive mechanism that would bring about greater flexibility in the services offered.

In response to the *Draft Decision* and submissions from interested parties, Epic's incentive mechanism was revised in its 17 May 2001 lodgement, such that a different rebate would apply in respect of existing users who enter an existing facilities agreement (pre-2006), and those who do not (post-2006). This mechanism is set out in section 5.3 of the revised access arrangement with a worked example included as an appendix to the 29 June 2001 lodgement, page 87.

The Commission received several submissions relating to the incentive mechanism outlined in Epic's 17 May 2001 lodgement. While there seemed to be broad acceptance of Epic's proposal, the main concern expressed was the inclusion of a capital component in the IT tariff.

> NRG Flinders primary concern with this clause 5.3 is that Epic should not be allowed to recover the full capital cost of the pipeline in the FT Capacity Charging Rate and also including a capital charge in the IT Commodity Charge Rate. Otherwise NRG Flinders would have no disagreement with a tariff structure that includes different rates.[164]

TGT submitted that:

> The incentive mechanism is acceptable. However, TGT is concerned that the FT Capacity Charge Rate and the IT Commodity Charge Rate are set fairly and logically...
>
> … if it is assumed that use of IT Services will be minor and therefore the FT Services will provide Epic's allowable Total Revenue it is not appropriate for the IT Commodity Charge Rate to include a capital component.[165]

Commission's considerations

At a broad level, the regulatory framework provides the service provider with incentive to minimise costs. Should Epic be able to reduce operations and maintenance expenditure from approved forecasts, it is able to retain the difference.

The Commission is broadly satisfied with the revised incentive mechanism set out in Epic's 29 June 2001 lodgement of its revised access arrangement. The Commission notes the concern expressed by NRG Flinders and TGT that the IT tariff contains a capital element. However, the Commission understands this to be necessary to ensure that the appropriate price signals are sent to Epic's customers with respect to FT and IT services.

If it is the case that anomalies arise owing to the structure of Existing Haulage Agreements, the Commission believes that these could be corrected through an Existing Facilities Access Agreement as described in 4.3(c)(ii). However, the Commission refers the existing users and potential IT users to its discussion of EFAA in section 3.1.5. In that section the Commission has indicated that it would be concerned if an existing user attempted to utilise an EFAA so as to hinder a potential IT user's access to existing facilities. It is the Commission's intention to review the incentive mechanism for the next access arrangement to ensure it is effective and appropriate.

2.9.3 Fixed Principle

Sections 8.47 and 8.48 of the Code allow a reference tariff policy to include certain principles that remain fixed for a set period (referred to as the 'fixed period'). These

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[164] NRG Flinders Submission on Epic's 17 May 2001 Revised Access Arrangement, 2 July 2001, p.1.

[165] TGT Response to ACCC Issues Paper on Epic's 17 May 2001 Access Arrangement, 2 July 2001, p.2

fixed principles can not be changed without the agreement of the service provider and may only include structural elements and not 'market variable' elements.

While a fixed period may apply for all or part of the duration of an access arrangement, the regulator is required to consider the interests of users and prospective users in determining the period.

Section 10.8 of the Code defines a 'market variable element' as:

> … a factor that has a value assumed in the calculation of a Reference Tariff, where the value of that factor will vary with changing market conditions during the Access Arrangement Period or in future Access Arrangement Periods, and includes the sales or forecast sales of Services, any index used to estimate the general price level, real interest rates, Non Capital Cost and any costs in the nature of capital costs.

Clause 5.2(a)(vi) of the original access arrangement stated that the capital base was to be adjusted annually by the capital cost revaluation, which would have been equal to the CPI and would be a fixed principle.

The Commission did not object to Epic's proposal to adjust the capital base annually by a CPI index. However, the Commission did object to making this adjustment a fixed principle on the basis that it includes a market variable element (CPI).

There were no submissions on Epic's proposed fixed principle.

Commission's considerations

The Commission is satisfied that the Amendment A2.6 in relation to Epic's proposed fixed principle has been incorporated into the revised access arrangement.

2.10 Assessment of reference tariffs and reference tariff policy

2.10.1 Code requirements

Section 3.4 of the Code requires the regulator to be satisfied that the access arrangement and any reference tariff included in the access arrangement comply with the reference tariff principles described in section 8 of the Code.

Section 3.5 of the Code requires the access arrangement to include a policy describing the principles that are to be used to determine a reference tariff. This reference tariff policy must, in the regulator's opinion, comply with the reference tariff principles set out in section 8 of the Code.

The reference tariff policy and all reference tariffs should be designed to achieve the objectives set out in section 8.1. These cover efficient service delivery, replicating a competitive market outcome, safe and reliable pipeline operation, signals for investment, efficient tariff design and incentives for cost reduction and market growth.

To the extent that these objectives may conflict in their application, the regulator is to determine how they can best be reconciled, or which of them should prevail.

Similarly, the relevant regulator is to be satisfied that the reference tariff and reference tariff policy is consistent with the criteria set out in section 8.2. These cover the

revenue to be generated from the sales (or forecast sales) of all services, the portion of total revenue that a reference tariff is designed to recover and the portion of total revenue to be recovered from users of various services. The criteria require that appropriate incentive mechanisms be incorporated in the access arrangement and that any forecasts used in setting the reference tariff represent best estimates arrived at on a reasonable basis.

In assessing all of these matters, the Commission must take into account the matters set out in section 2.24 of the Code. Stated briefly, the matters set out in that section are: the service provider's legitimate business interests and investment in the pipeline; firm and binding contractual obligations; the safe and reliable operation of the pipeline; the economically efficient operation of the pipeline; the public interest; the interests of users and prospective users; and any other matter that the regulator considers relevant.

2.10.2 Epic's proposal

Clause 5.1 of the access arrangement defines the constituents of the reference tariff.

Epic's reference tariff policy (clause 5.2) describes the principles used by Epic to determine the reference tariff, including the initial capital base, depreciation, capital expenditure, rate of return, capital cost revaluation and total revenue requirement.

Epic states in clause 5.2(a)(i) of its lodgement of 29 June 2001 that the service provider calculated the total revenue requirement 'based on forecast costs for each year of the Access Arrangement Period using the 'cost of service' methodology'. In fact it did not provide forecasts for the years 2004 and 2005. This is because the access arrangement when lodged predicated a termination date of 31 December 2003, which has since been extended to 31 December 2005.[166] The Commission has modelled cashflows for the years 2004 and 2005 using the available data.

Clause 5.3 outlines Epic's incentive mechanism to encourage existing and FT users to make capacity available for IT service.

The foregoing sections of this chapter describe Epic's proposals in respect of each element of the reference tariff, submissions in response and the Commission's assessment of the issues. The following discussion draws together, in terms of sections 8.1 and 8.2 of the Code, the Commission's overall conclusions on Epic's proposed reference tariff policy. It gives an overview of why the Commission requires Epic to amend its reference tariff and reference tariff policy in the ways described earlier in this chapter.

2.10.3 Commission's considerations

In this *Final Decision* the Commission's consideration of the proposed access arrangement has been influenced by the existing haulage agreements to which Epic is a party. Epic has argued that its existing capacity is fully committed and operational flexibility impacted by the terms of its existing haulage agreements and it therefore has

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[166] Epic, Revised Access Arrangement, 29 June 2001, clause 1.3.

limited scope to offer the reference service during the first access arrangement period without enhancement of the pipeline system.

The Commission has largely accepted this view in respect of the initial access arrangement period and has not pursued a broader range of reference tariffs in this access arrangement. The Commission intends to re-examine, at the next review, the relevant services to determine whether a wider range of services should be included in the access arrangement for the next period.

However, in the following chapter the Commission signals its concern that a combination of the tight capacity on the system, Epic's extensions and expansions policy and applicable Code provisions mean that firm capacity is likely to be fully committed well into the future.

Section 8.1 objectives

Recovery of efficient costs associated with the provision of the reference service – section 8.1(a)

Epic proposes a cost-of-service methodology to derive its revenue requirement. However, in setting the reference tariff for the initial access arrangement period, it proposes to recover only the revenues earned from the existing haulage agreements.

The Commission considers that the cost of service proposed by Epic would provide Epic with a return that is in excess of the recovery of efficient costs associated with the reference service. In the Commission's view the WACC and associated parameters, the initial capital base and the depreciation schedule proposed by Epic are not consistent with the principle of recovering efficient costs. The Commission is not satisfied that a tariff based on revenues under the existing haulage agreements would satisfy the principle in section 8.1(a).

The reference tariff resulting from the parameters proposed by the Commission would provide the service provider with the opportunity, if it were supplying the reference service, to earn a stream of revenue that would recover efficient costs associated with that service.

In reaching these conclusions for this *Final Decision*, the Commission has satisfied itself of the following matters;

- The WACC and associated parameters proposed by the Commission in this *Final Decision*, in particular, the post-tax nominal return on equity, are commensurate with conditions prevailing in markets for funds and the risk involved in delivering the reference service (as required by section 8.30).

  The Commission's methodology to derive pre-tax WACC applies the WACC parameters to the estimated cash flows of the regulated entity in a post-tax nominal framework. That framework better reflects the objectives of section 8.30 and achieves an appropriate commercial return on capital.
- In calculating the initial capital base proposed in the *Final Decision*, the Commission has had regard to the factors identified in section 8.10 of the Code.

The Commission has given particular weight to deriving an ORC valuation based on analysis of the factors, such as the price of pipe and the difficulty of construction over individual sections of terrain, impacting on the current costs of constructing an optimised system. The Commission has then depreciated that valuation using conventionally-assumed asset lives, on the basis that this would make for accountability in tracking the value of the capital base over time for tariff purposes. The amount of depreciation based on the Commission's ORC valuation is of an appropriate order of magnitude, having regard to methodology and comparison with pipeline net valuations given by the alternative approaches suggested by section 8.10.

The Commission considers that international best practice (section 8.10(f)) is implicit in the approach it has taken. Some of the other factors listed in section 8.10, such as the reasonable expectations of persons under the previous regulatory regime (section 8.10(g)), do not in themselves yield verifiable numbers. In fact, the South Australian regulator's tariff monitoring powers under the regime applying to Epic pending implementation of its national Code access arrangement, did not require the regulator to establish a reference tariff or capital base.[167]

However, in the Commission's view other section 8.10 factors, including impact on the economically efficient utilisation of gas resources, are addressed by the relevance of the Commission's costings to the operations of an efficient commercial service provider in market conditions approximating competition (see further discussion below).

The Commission has assessed Epic's figures and calculated its own figures to address the requirements specifically of sections 8.10 (a), (b), (c) and (f). In the Commission's view, its optimisation methodology is consistent with the requirements of section 8.10(e). The alternative net valuation methods considered included depreciated value of the price paid by Tenneco (now Epic) to purchase the pipeline system; residual asset value after economic depreciation; and book value adjusted for CPI, capital expenditure and depreciation.

The Commission has accepted that the capital base should be indexed so as to retain its real value.

- The return of capital (depreciation) flowing from depreciation on a straight-line basis of the capital base proposed by the Commission is consistent with the requirements of section 8.33 of the Code.
- The Commission has satisfied itself, using accepted industry yardsticks, that Epic's proposed operations and maintenance expenses during the initial access arrangement period are reasonable and consistent with the requirements of section 8.37.

Replicating the outcome of a competitive market – section 8.1(b)

It can be expected that in a competitive market the tariffs charged by a firm would achieve for it a return of capital and a return on capital after costs at levels

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[167] *Natural Gas Pipelines Access Act 1995* (SA), Part 6.

commensurate with the returns, and no more, achieved by firms facing similar commercial risks.

Methodologies for optimising the capital base and setting rate of return parameters endeavour to determine for the regulated entity the values achievable in competitive capital, materials and services markets by a comparable business. The cost of service approach to pricing caps the firm's reference tariffs in relation to the capital base and capital costs so identified. Pipeline service providers emphasise that the value of their enterprise is very much tied up in their invested capital - reasonable operating and maintenance expenses are relatively non-contentious issues. Deriving prices in this fashion, the Code endeavours to mimic prices that would be achieved in a competitive market for the entity's services.

For the reasons stated above, in the Commission's view the WACC and initial capital base proposed by Epic are inconsistent with the principle of recovering only efficient costs. Therefore, the Commission concludes that until the Commission's amendments are adopted, the reference tariff proposed by Epic does not replicate the outcome of a competitive market.

Ensuring the safe and reliable operation of the pipeline – section 8.1(c)

Clause 5.2(a)(iv) of Epic's revised lodgement of 29 June 2001 states 'the initial Capital Base was increased by forecasted capital expenditures required to implement the proposed Reference Service and maintain the safety, integrity and reliability of currently contracted Capacity of the Pipeline System'.

In the Commission's view the reference tariff proposed by Epic is more than sufficient to ensure the safe and reliable operation of the pipeline. While the Commission requires that the WACC and initial capital base proposed by Epic be reduced, the Commission has accepted the estimates of operating and maintenance expenses and of stay-in-business capital expenditure proposed by Epic (subject, of course, to review of expenditure at the next regulatory period). Ongoing expenditure on maintenance and on replacement of assets in accordance with competent professional opinion is important to safe and reliable operations.

Epic provided the following information to describe the regulatory obligations and internal company procedures in place to achieve safe and reliable pipeline operation.[168]

> Epic's regulatory obligations are included in the following documents:
>
> - Petroleum Act - SA 1940
> - Relevant Pipeline Licences
> - AS 2885 - Pipelines - Gas and liquid petroleum
>
> Epic's compliance is monitored by the Department of Primary Industries and Resources, South Australia and the following requirements are provided for:
>
> - Safety Risk Assessment - report to the Minister every 5 years.
> - Risk Analysis, Environmental - report on measures proposed in case of a leak to the Minister every five years.

[168] Epic, consolidated response to Commission's letter of 30 April 1999, p. 10.

- Procedure for Safe Operation and Security - Submit operating and emergency procedures to the Minister every five years.
- Emergency response drills - to be carried out every two years with a report to the Minister.
- Fitness for Purpose - report to the Minister every 5 years.
- Submit an annual operating report to the Minister.
- As constructed drawings - submit drawings on alterations and modifications to the Minister within 30 days.

Epic has given the responsibility of monitoring compliance with these requirements to a senior engineer.

Epic has established a Safety, Quality and Environmental Management System to assist in complying with these requirements. This has been certified to AS/ISO 9001 (Quality) and AS 14001 (Environmental). Epic is working towards obtaining certification for its Safety systems as well.

Procedures and work instructions include:

- Safety
- Emergency response
- Operations and maintenance, and
- Environmental management.

A number of the statutory safety reporting requirements identified by Epic follow 5-year cycles, a frequency comparable to the period of the access arrangement.

In these circumstances, the Commission considers that the revised reference tariff policy and reference tariff that the Commission proposes are consistent with safe and reliable operation of the pipeline system. The Commission should be informed by Epic in the event that any of the circumstances it describes change.

Not distorting investment decisions in pipeline transmission systems nor in upstream or downstream industries – section 8.1(d)

Efficient upstream and downstream investment decisions will be fostered by pricing based on an allocation of costs to users that approximates the long-run costs of providing the service.

If price levels exceed long-run costs, there is an incentive to bypass the pipeline system. Such investment would not otherwise be warranted. Prices that exceed long-run costs will also discourage efficient upstream and downstream investment.

On the other hand, if price levels are below long-run costs, efficient investment is discouraged and the pipeline system owner will not have an incentive to make further investments in the system to maintain or increase its efficiency of operation.

In the Commission's view the DORC and rate of return methodologies used by Epic overstate the initial capital base, depreciation schedule and return on capital. Epic proposes to recover only the portion of its estimated cost of service that is equivalent to the revenues yielded by existing haulage agreements. Even so, if the DORC and rate of return methodologies are correctly applied in accordance with the principles outlined in this chapter, the result is a yet lower reference tariff at a level that, in the Commission's view, would still meet the revenue requirement of an efficient operator.

In reaching this view about the initial capital base (and similarly, about proposed depreciation), the Commission notes that the initial capital base proposed in this *Final Decision* is broadly consistent with the value, in real terms, of Epic's actual investment in the system. In respect of rate of return on capital, as noted in 2.5.7 the critical rate in the regulatory framework is the post-tax nominal cost of equity derived from the CAPM. The post-tax nominal return on equity in an optimised capital base determines whether investors are willing to advance equity to finance the capital infrastructure required to provide services. The post-tax nominal return on equity proposed by the Commission is slightly lower than that proposed by Epic.

These outcomes suggest that the amendments the Commission proposes to Epic's reference tariff policy and reference tariff are consistent with the objective of not distorting investment decisions.

Efficiency in the level and structure of the reference tariff(s) – section 8.1(e)

It follows from the Commission's conclusions in respect of the previous section 8.1 factors, that the Commission is not satisfied that the *level* of the reference tariff proposed by Epic is efficient.

The Commission accepts Epic's proposal for a 95 per cent of CPI tariff escalator for this access arrangement. However tariffs should trend downwards over time and it is the Commission's intention to review the tariff escalator for future access arrangements.

In the longer term, the impact of depreciation should be to reduce the level of efficient tariffs. While the Commission has accepted Epic's proposed escalator for this access arrangement, it will need to be reviewed in the future to ensure resultant tariffs are efficient.

In respect of the *structure* of the reference tariff, the views of market participants suggest the following issues for consideration.

The relationship between capacity and commodity charge rates

Epic proposes that its FT tariff comprise two parts: a capacity charge that will apply to the MDQ reserved for each user, and a commodity charge that will apply to each GJ of gas actually hauled.

In general, there are a number of efficiency arguments in support of two-part tariffs. The capacity charge gives each user an incentive to forecast as accurately as possible its likely haulage requirements, especially maximum haulage requirements. The accuracy of these forecasts is an important element in the service provider's planning of pipeline operations and future expansion projects.

Second, each user has a strong incentive to maximise the use of capacity once contracted, since the user must pay a charge based on MDQ whether or not MDQ is used. Adopting practices that improve the utilisation of the pipeline and reduce the variation between peak and minimum load requirements can do this. Examples are trading in capacity and diversification of the customer base.

The Commission is satisfied that the relationship between the capacity and commodity charge supports efficient outcomes. However, the Commission proposes to consider the relative proportions of the capacity and commodity charges when it next reviews the access arrangement.

The relationship between FT and IT tariffs

TGT's submission suggested that the price premium charged for IT service (15 per cent above FT tariffs) is not warranted given that IT is an inferior service to FT and the pipeline is fully contracted.[169]

In response, Epic explained that FT and IT service pricing structures differ because of the need to make a 'load factor adjustment' to IT service.[170]

The Commission's understanding of Epic's response is as follows. An FT user is required to pay a capacity charge based on the MDQ of capacity reserved for that user, whether or not the user actually employs the reserved quantity. Shippers pay for capacity based on their peak loads that they are unable to use at other times. FT users will on average pay an amount that is greater than the sum of the FT capacity and commodity charges multiplied by the actual quantity of gas hauled because the capacity charge rate is applied to the MDQ.

Since IT users only pay for the actual quantity of gas that is hauled, the relationship between the FT charge and the IT charge depends on the efficiency that the FT users are able to achieve. Epic submitted: [171]

> The 15 per cent 'premium' represents a load factor adjustment. IT service is a 'commodity' or throughput tariff, and as such is independent of load factor, unlike FT service which is 'capacity' based. An FT service shipper with a 'good' load factor of 115 per cent would pay 1.15 x the capacity charge per GJ of throughput (the pipeline load factor is 'worse' than 115 per cent). The 15 per cent 'premium' for IT service is to reflect this load factor effect. In view of the fact that the majority of the IT service revenue will be rebated, Epic is not incented to support a high tariff.

This leads to a conclusion that the IT tariff is comparable to the FT charge.

The Commission is satisfied that the relationship between FT and IT tariffs proposed by Epic is reasonable. However, in the Commission's view the relativity of tariffs for different services must be responsive to the market. The Commission will consider the relativity of tariffs at each review.

'Postage stamp' tariff

The reference tariff proposed by Epic is a 'postage stamp' tariff (refer renumbered clause 5.2(a)(viii)(B) in the 29 June 2001 lodgement). That is, the one tariff applies to haulage of gas to any point along the main pipeline. In addition, the access arrangement proposes a 'Whyalla Lateral Surcharge' on the tariff that will apply to gas delivered on the Whyalla lateral, as explained above in relation to the capacity charge.

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[169] TGT submission, 26 October 1999, p. 29.
[170] Epic, response to submissions, 1 February 2000, p. 27.
[171] Epic, response to submissions, 1 February 2000, p. 27.

In discussions Epic representatives explained that this structure reflects the fact that in excess of 90 per cent of the gas hauled through its pipeline system is delivered into the Adelaide metropolitan area and therefore a distance-based charging system would have very little impact on most customers. Epic submitted that the Whyalla Lateral Surcharge was calculated to recover the same revenues as under existing contracts for capacity on these facilities.[172] This lateral serves most of its remaining customers.

In discussions, Epic representatives stated that the concentrated location of the MAPS customers means that there is little difference in efficiency terms between a 'postage stamp' and distance-based pricing structure. Further, they stated that the 'postage stamp' system may actually be more efficient by reducing the administrative burden on Epic and its customers. Trading in capacity improves the efficiency of the market through arbitrage opportunities. According to Epic representatives, the use of a 'postage stamp' tariff encourages trading in capacity.

Epic's position appears to have general support in the marketplace. However, this may simply reflect the fact that alternative haulage opportunities are not available in South Australia.

The Commission notes comments by N.T. Gas Pty. Limited in respect of the 'postage stamp' tariff at present applying to its pipeline in the Northern Territory, as follows: [173]

> NT Gas recognises that maintaining such a pricing structure has the potential to impede growth in the utilisation of the ABDP. This is particularly in the case of price sensitive projects which are located only part way along the pipeline, but which, under a postage stamp tariff, would be charged for delivery of gas as if that gas was transported though [*sic*] the entire length of the pipeline.

The Commission is of the general view that distance-based tariffs are likely to provide better price signals to the market than 'postage stamp' or 'zonal' tariffs. Nevertheless, in the current circumstances of the MAPS, in the Commission's view the loss in efficiency (if any) due to a 'postage stamp' tariff is likely to be minimal. The Commission considers that the issue needs to be addressed at the next review.

Back haul tariff

In a June 1998 access arrangement prepared under the access legislation of 1995 applicable in South Australia, Epic offered a wide range of services, including back haul tariffs.[174] Epic dropped from a later edition of the brochure a number of its earlier tariffs including the back haul tariff, on the basis that the services could not easily be supplied and there had been no demand in the market for them.

The Commission notes that numerous interested parties have submitted that a back haul tariff should be included. The Commission also notes that Epic has declined to offer a back haul tariff at this stage, and remains opposed to its inclusion in the Access Arrangement. However, the Commission takes the view that it is not clear that the tests

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[172] Access arrangement information, p. 10.

[173] N.T. Gas Pty. Limited, *Access Arrangement Information for the Amadeus Basis to Darwin Pipeline*, 25 June 1999, p. 6.

[174] Epic, *Information Brochure and Access Principles for the Moomba-Adelaide Pipeline System*, June 1998.

of 2.24 and 3.3 of the Code are satisfied at this time, and is unable to compel Epic to include back haul tariffs in the Access Arrangement.

Incentives for the service provider to reduce costs and expand the market – section 8.1(f)

Within the proposed access arrangement Epic has included a provision that it refers to as the 'incentive mechanism'. This mechanism provides for a rebate to FT and existing haulage customers where revenue is generated from the sale of IT services utilising capacity made available by them.

The incentive mechanism is designed to have two key results. First, trading of unused capacity is encouraged with the objective of a larger number of customers taking gas supply and thereby broadening the market. Second, the incentive for customers to make available capacity that would otherwise be under-utilised has the potential to improve the overall utilisation, and thereby the efficiency, of the pipeline system. Thus, the incentive mechanism is consistent with an expansion of the market and with greater efficiency, which in turn should reduce costs per unit of delivered gas.

It is also necessary to consider the proposed access arrangement more broadly to assess how its other features are likely to impact on incentives for reducing costs and expanding the market.

As stated previously, in the Commission's view the reference tariff proposed by Epic is too high. If approved, it would weaken the commercial disciplines of a competitive market that the Code endeavours to replicate. Tariffs at the levels proposed by Epic (whether its estimated cost of service or proposed revenue requirement for this period) would sustain a higher cost base than would be the case otherwise. Second, higher than appropriate tariffs are likely to reduce demand for gas as marginal projects subject to gas haulage costs are priced out of the market.

Therefore, in the Commission's view the reference tariff and reference tariff policy proposed by Epic are not consistent with providing incentives for the service provider to reduce costs and expand the market.

Section 8.2 factors

Section 8.2 of the Code lists five factors about which the Commission is to be satisfied in determining whether to approve the reference tariff. These are assessed below.

Total revenue to be consistent with the principles and one of the methodologies contained in section 8 of the Code – section 8.2(a)

The 'total revenue' referred to in the Code is the revenue from sales of services over the covered pipeline.

According to Epic, the FT and IT services described in the access arrangement can only be made available in limited circumstances.[175] Epic is expected to earn its revenues primarily from existing haulage agreements. To a lesser degree, revenues will also

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[175] Access arrangement information, p. 4.

flow from the sale of IT services and from other arrangements entered into outside the terms of the access arrangement. Therefore, most of the total revenue that will accrue to Epic over the initial access arrangement period can not be varied by the Commission's decision on the access arrangement.

In the face of the difficulty of estimating IT revenue and the likelihood of low or non-existent sales of FT service, the Commission has assessed Epic's total revenue for purposes of section 8.2 as if it were to account for 100 per cent of Epic's total revenue.

While Epic has utilised the cost of service approach in determining its reference tariff, in the Commission's view Epic's proposed capital base, rate of return and depreciation are overstated. As a consequence, the total revenue that Epic would derive from the FT tariff if it accounted for 100 per cent of Epic's revenue is greater than would be earned if the principles of section 8 of the Code were applied.

On this basis, the Commission is not satisfied that Epic's total revenue is consistent with the principles and one of the methodologies contained in section 8 of the Code.

The proportion of total revenue that any one reference tariff is designed to recover is calculated consistently with the principles of section 8 of the Code – section 8.2(b)

Sections 8.38 to 8.41 provide guidance favouring cost-reflective pricing, to the maximum extent that is commercially and technically reasonable. These provisions are subject to considerations of providing incentive for market growth and avoiding loss of supply opportunities.

Over the initial access arrangement period Epic expects that FT and IT services can only be made available in limited circumstances. The revenue that is likely to be derived from the IT service is particularly uncertain owing to the contingent nature of the service. The proportion of Epic's total revenue that will be recovered from the IT service is also expected to be small (or non-existent) over the next access arrangement period.

As noted in section 2.7.3, there is a difference between the stated pipeline primary capacity (348 TJ per day), which is firm (that is, reliable) capacity, and its stated maximum capacity (418 TJ per day). The difference between the two provides an indication of the margin of capacity available to the service provider to ultimately make available for interruptible use. The Commission has not formed a view on whether Epic may have been overly conservative in establishing that margin and whether therefore the capacity for Epic to earn additional revenues from IT service has been understated. Also relevant to calculation of spare capacity is the level of contracted but unused capacity. The Commission intends to review this situation at the commencement of the next regulatory period on the basis of IT capacity sales between now and then.

Nevertheless, assuming that Epic were to earn 100 per cent of its revenue from the only reference service, the Commission is of the view that the FT reference tariff proposed by Epic is excessive and not calculated in accordance with the principles of section 8 of the Code.

The proportion of total revenue recovered from users of a service is calculated consistently with the principles of section 8 of the Code – section 8.2(c)

Section 8.42 of the Code gives guidance that pricing should be cost-reflective, to the maximum extent commercially and technically reasonable.

As outlined in the discussion of section 8.1 factors, the Commission has reached the view that the relationship at this stage between FT and IT tariffs is appropriate. Therefore the Commission is also satisfied that the proportion of total revenue that will be derived from each category of user (FT and IT) is consistent with the principles of section 8 of the Code, subject to the qualifications expressed above in respect of compliance with section 8.2(b).

Incentive mechanisms are incorporated consistently with the principles of section 8 of the Code – section 8.2(d)

The proposed access arrangement incorporates an incentive mechanism that is to apply to the rebateable IT service. The Commission is satisfied that the mechanism is consistent with the principles of section 8 of the Code.

Epic has not included incentive mechanisms of the type described in sections 8.45(a) and (b) of the Code. These sections provide for the service provider to retain revenues achieved beyond forecast levels. Epic has adopted this approach because the capacity of the existing pipeline is fully contracted for the period of the proposed access arrangement and it is not expected to be possible for additional gas to be hauled on a firm basis without expansion of the system.

It is the Commission's intention to review the relevant circumstances at the time of the next access arrangement. At that time the Commission will again consider whether it is appropriate to broaden the scope of the incentive mechanism.

Forecasts are best estimates – section 8.2(e)

Epic's proposed initial tariff in Schedule 4 of the access arrangement is based on existing levels (for the year ending December 1998) of contract revenue and pipeline capacity, rather than demand forecasts. Because the pipeline system is fully contracted, the Commission has calculated the initial tariff based on the total system primary capacity stated in this *Final Decision*.

3. Access policies, terms and conditions and review of the access arrangement

In this chapter the mandatory non-tariff elements of the proposed access arrangement for the MAPS are assessed for compliance with the Code. The Code requirements are outlined for each mandatory element followed by a summary of the service provider's proposal, the issues raised in submissions, Epic's response to submissions and the Commission's considerations. Where relevant these are followed by amendments that the Commission proposes be made for the access arrangement to be approved. All amendments are replicated in the executive summary.

Section 3 of the Code establishes the minimum content of an access arrangement, which includes the following non-tariff mandatory elements:

- a services policy that must contain at least one service that is likely to be sought by a significant part of the market;
- terms and conditions on which the service provider will supply each reference service;
- a capacity management policy to state whether the covered pipeline is a contract carriage or market carriage pipeline;
- in the case of a contract carriage pipeline, a trading policy which refers to the trading of capacity;
- a queuing policy which defines the priority that users and prospective users have to negotiate capacity where there is insufficient capacity on the pipeline;
- an extensions/expansions policy which determines whether an extension or expansion of a covered pipeline is or is not to be treated as part of the covered pipeline for the purposes of the Code; and
- a review date by which revisions to the access arrangement must be submitted and a date on which the revisions are intended to commence.

An access arrangement must also contain a reference tariff policy and at least one reference tariff. These provisions were assessed for compliance with the Code in chapter 2.

In this chapter the 29 June 2001 version of the access arrangement proposed by Epic is considered.

3.1 Services policy

3.1.1 Code requirements

Sections 3.1 and 3.2 of the Code require an access arrangement to include a services policy, which must include a description of one or more services that the service provider will make available to users and prospective users. The policy must describe

any services likely to be sought by a significant part of the market, and any that in the relevant regulator's opinion should be included.

When practicable and reasonable, a service provider should make available those elements of a service required by users and prospective users and, if requested, apply a separate tariff to each.

3.1.2 Epic's proposal

Epic proposes to offer one reference service, FT service, which is a firm service. In addition, Epic is prepared to offer non-reference services. Epic has specified an interruptible service, and has also included provisions for other services: Non-specified services.

FT service

FT service consists of the delivery by the service provider of a quantity of a user's gas equal to the sum of the final nominated delivery quantities for that day to one or more delivery points.

FT service is not to be interrupted, subject to the terms of the access arrangement.

IT service

IT service consists of the delivery by the service provider of a quantity of a user's gas equal to the sum of the Final nominated delivery quantities for that day to one or more delivery points, which is subject to interruption.

If IT service is to be from existing delivery facilities, it can be obtained either by entering into an existing facilities access agreement in relation to those facilities, or with Epic's agreement.

Non-specified services

These are services other than FT service or IT service. Under clause 4.1(b) of the access arrangement, Epic is prepared to negotiate with prospective users for the provision of non-specified services. The terms under which non-specified services are provided are subject only to clauses in the access arrangement regarding application procedure and queuing policy

Priority of service

Epic proposes to make available for IT service the amount of capacity that remains after it has met its obligations to FT users, existing users and persons with contracts for non-specified services that rank in priority ahead of IT services.

Epic proposes to make 323 TJ per day available for FT service. This is referred to as the system primary capacity.

Any portion of this capacity that is not required by FT users or existing users, and any capacity in excess of 323 TJ per day will be made available to IT users.

Epic proposes to give priority firstly to quantities nominated as primary capacity quantities by FT users within their respective MDQs, and quantities nominated by existing users within their respective MDQs.

Secondly, priority goes to quantities nominated by FT users to use net available capacity within their respective MDQs. Under clause 18.3(c)(ii), FT users may nominate quantities in excess of their primary capacity quantity (PCQ) at a delivery point. These nominations may be up to the net available capacity of the delivery point, provided that total initial nominated delivery quantities do not exceed the FT user's maximum daily quantity (MDQ). Accordingly, FT users may receive all the capacity at a particular delivery point.

Thirdly, priority goes to quantities nominated by IT users up to the maximum capacity of the relevant delivery points.

Fourthly, priority goes to authorised variation quantities nominated by FT users up to the maximum capacity of the relevant delivery points.

Fifthly, priority goes to authorised variation quantities of IT users up to the maximum capacity of the relevant delivery points.

3.1.3 Submissions by interested parties

Capacity of the pipeline system

Terra Gas Trader (TGT) made the following comments in its submission:

- the current indicative capacity of the pipeline of 395 TJ is available to existing shippers in winter, and is reduced in summer to 377 TJ due to ambient conditions.
- TGT queried Epic's classification of 323 TJ of the indicative capacity of 395 TJ as system primary capacity. TGT submitted that the remaining 72 TJ is, subject to summer, available most of the time.[176]

Origin submitted that the capacity of the pipeline under favourable conditions is 393 TJ per day, and that the aggregate of users' MDQs should equal this figure. Origin believes that were capacity of the pipeline defined as 393 TJ per day, and were Epic required to supply this capacity unless it could demonstrate that it was unable to do so, Epic would be more likely to make capacity above 323 TJ per day available.[177]

The South Australian Office of Energy Policy (OEP) submitted that, since firm capacity was 323 TJ per day in September 1996 when indicative capacity was 353 TJ per day, the firm capacity of the pipeline should now exceed 323 TJ per day, given that indicative capacity is currently 393 TJ per day.[178]

Epic's obligation to maximise capacity

Origin submitted in relation to Epic's classification of 323 TJ of the pipeline's capacity as system primary capacity, that Epic should be obliged to operate the MAPS so as to

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[176] TGT submission 18 September 2000, p. 5.
[177] Origin submission 21 September 2000, p. 8 at 3.4.5.
[178] OEP submission 31 October 2000, p. 5 at (5).

maximise its capacity. Origin wishes an express clause to this effect to be included in the access arrangement.[179]

Allocation of primary capacity

TGT submitted that the *Draft Decision* stated incorrectly the allocation of primary capacity reserved between Origin and TGT. It considers that the correct position on firm reservations is:[180]

	Prior to February 1999	Since February 1999
TGT	200	240
Origin	153	153
Epic		2
Indicative capacity	353	395

Origin made the following comments in relation to primary capacity:

- net available capacity should be pro rated across users based on their MDQ. This is because if capacity above 323 TJ is pro rated across users based on their nominations, as proposed by Epic, a user does not know until the day before deliveries are made how much net available capacity it will have access to. Origin submitted that this system will also encourage users to over nominate to maximise their access to net available capacity;[181]
- the access arrangement makes it difficult for users to supply customers on a firm basis. Since on different days net available capacity may be allocated to different users, customers may be forced to purchase gas from several users;[182]
- given that the existing haulage agreements (EHAs) give users rights to up to 393 TJ per day, clause 2.2 should be amended to include the sentence, 'the Existing Users under the Existing Transportation Agreements have rights to use the total capacity of the Pipeline of 393 TJ per day'.[183]

Santos commented on a lack of competitiveness in access to the pipeline.[184] Santos raised concerns that, since all capacity of the MAPS is contracted to Origin and TGT, firm capacity will not be offered to other operators before January 2006.[185]

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179 Origin submission 21 September 2000, p. 5 at 3.1.2.
180 TGT submission 18 September 2000, p. 4 at (i).
181 Origin submission 21 September 2000, p. 6 at 3.2.1.
182 Origin submission 21 September 2000, p. 6 at 3.2.2.
183 Origin submission 21 September 2000, p. 8 at 3.5.1.
184 Santos submission 18 September 2000, p. 1 at (1).
185 Santos submission 18 September 2000, p. 1 at (1).

The relationship between PCQ, MDQ and net available capacity

The access arrangement provides that a user's maximum daily quantity (MDQ) of gas to be delivered will be the sum of the users' primary capacity quantities (PCQ). PCQs are defined at individual delivery points. Thus, a user's MDQ is the sum of its PCQs defined at each delivery point.

AGLES&M raised a number of concerns regarding this issue:

- it is unacceptable that, since the system's firm capacity is fully contracted to existing users, available capacity at all delivery points is effectively zero;
- the aggregate of all delivery point capacities exceeds 830 TJ per day, which highlights AGLES&M's point about available capacity;[186]
- the current access arrangement does not comply with the Commission's requirement for amendments to the definitions of spare capacity and available capacity in its *Draft Decision*;[187]
- by permitting FT users to nominate more than their contracted capacity at a delivery point on a day, clauses 18.3 and 18.5 give FT and existing users scope to over nominate for the purpose of denying capacity to IT users.

In addition, Origin commented on the definition and allocation of MDQ:

- MDQ should be defined in the access arrangement by reference to the capacity a user has reserved in the pipeline system, rather than the sum of a user's primary capacity quantities;
- if MDQ is defined in the latter terms, users will be required to reserve more MDQ than they might actually require on any given day.[188] Instead of reserving a particular quantity of MDQ and allocating it where needed across delivery points, users will be required to reserve the aggregate of the quantities that are potentially required at each delivery point;
- a clause could be included in the access arrangement to prevent users from exceeding the maximum quantity of delivery points;
- the combined effect of clauses 2.2 and 18.3 is that a user can only receive more than its PCQ at one delivery point if it receives correspondingly less than its PCQ at another delivery point;
- furthermore, since the PCQs at all delivery points aggregate to 323 TJ, the access arrangement does not permit FT users to obtain access above 323 TJ;
- a user's MDQ should be defined as the sum of the user's primary capacity quantities and the portion of net available capacity allocated to the user on a day under clause 18.3 (c);
- clause (b) of the definition of MDQ should be modified to read:

> 'not less than the sum of the User's Primary Capacity Quantities divided by 1.25'.[189]

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[186] AGLES&M submission 29 June 2001.
[187] AGLES&M submission 29 June 2001.
[188] Origin submission 21 September 2000, p. 9 at 4.1.5.
[189] Origin submission 12 July 2001, pp. 2-4.

The OEP commented on exclusivity rights:

> On a medium term basis, if a purchaser has no need to nominate for MDQ for say many weeks, and then such unused capacity should be made available to new shippers. This position is supported by the Government, if such transfer of uncontracted capacity does not infringe contractual rights.[190]

The provision of non-specified services

Origin made the following submissions in relation to this matter:

- Epic should be required to negotiate in good faith reasonable terms for the provision of non-specified services;
- pursuant to clause 4.3(b), the access arrangement should spell out the circumstances in which persons with contracts for non-specified service rank in priority ahead of IT service; and
- in circumstances where some non-specified services are required by users to allow them to provide normal services to customers, the revenue from such services should be taken into account in setting reference tariffs.[191]

TGT made the following submissions in relation to this matter:

- it is incorrect to allocate total revenue to the FT capacity charge, and that some of the total revenue must be allocated to the IT service;
- the FT capacity charge rate in the first period should be determined by first determining what FT and IT services would be contracted in the absence of the haulage agreements, and to allocate total revenue accordingly; and
- Alternatively, should Epic's methodology be accepted, either the IT commodity charge rate should be reduced by deducting the capital component from that rate, or a greater percentage of IT revenue should be rebated.[192]

Variations to service

Origin also submitted that clause 6.9(b) of the access arrangement (now clause 6.7(b)) gives Epic an excessively wide discretion to refuse to vary a service.[193]

With regard to the priority of service provisions in the access arrangement, Origin submitted that when the service provider reduces a user's nomination, it should be required to disclose to the user all details required to establish that it was necessary for the user's nomination to be reduced.[194]

Back haul and part haul services

Part haul and back haul tariffs have been the subject of substantial consideration throughout this process. In the *Draft Decision* the Commission proposed that a review

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190 OEP submission 31 October 2000 on C2000/269, p. 3.
191 Origin submission 21 September 2000, pp. 9-11.
192 TGT submission September 2000, pp. 5-6.
193 Origin submission 21 September 2000, p.12 at 5.4.2.
194 Origin submission 21 September 2000, p. 36 at 21.1.1.

of the access arrangement could be triggered in specific circumstances to permit back haul and part haul reference tariffs to be included at a later date.

Most submissions received in response to the *Draft Decision* did not support the inclusion of a trigger mechanism (see WMC Limited,[195] TGT,[196] NRG Flinders,[197] Potential Energy,[198] OEP[199] and The Department of Industry and Trade (DIT)).[200] Only AGLES&M supported the inclusion of a trigger mechanism.[201]

The inclusion of a trigger mechanism was not supported because:

- a trigger did not provide a high level of certainty for potential users;
- a trigger would create uncertainty for the pipeline owner;
- a review of the access arrangement would be a time consuming process; and
- a trigger was seen as inferior to including back haul and part haul services as reference services.

By contrast, there was widespread support for the inclusion of back haul and part services as reference services. In particular, the DIT submitted that there is likely to be strong demand for part haul services, including back haul services, in the near future. DIT enumerated several major industrial projects planned for the Upper Spencer Gulf region, including SAMAG's proposed magnesium smelter and power plant and WMC's expansion at Olympic Dam. DIT also submitted that this strong future demand satisfies the requirements of section 3.3(b) of the Code, and that accordingly, distance based tariffs for back haul, interruptible transport and forward transport services should be addressed in the access arrangement.[202]

Following the receipt of submissions on the *Draft Decision*, the Commission asked interested parties to comment on whether the inclusion of pricing principles for back haul and part haul tariffs in the access arrangement might be satisfactory. The concept of pricing principles received some support (see TGT,[203] NRG Flinders[204] and Potential Energy).[205]

IT service

In relation to IT service, Potential Energy made the following submissions:

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195 WMC Limited submission 25 August 2000, p. 2 at (2).
196 TGT submission 2 July 2001, p. 4 at (3).
197 NRG Flinders submission 29 June 2001, p. 2 at (2).
198 Potential Energy submission 29 June 2001, p. 2.
199 OEP submission on CR99/53 and GR9902, 31 October 2000, p. 3 at (3).
200 DIT submission 13 November 2000, pp 1-2.
201 AGLES&M submission 29 June 2001.
202 DIT submission 13 November 2000, pp 1-2.
203 TGT submission 2 July 2001, p. 4 at (3).
204 NRG Flinders submission 29 June 2001, p. 2 at (2).
205 Potential Energy submission 29 June 2001, p. 2.

- allocation of IT nominations under clause 18.5(f) should not be on a pro rata basis, but rather, priority should be given to earlier users over subsequent IT service users;[206]
- charges to apply for the IT service should not be a disincentive to the development of projects on the basis of an interruptible gas supply; [207] and
- IT service tariffs should be set with reference to the FT commodity charge rate rather than with reference to the sum of the capacity charge rate and the FT commodity charge rate.[208]

TGT made the following submissions:

- Epic's proposed IT commodity charge rate is inappropriate where total revenue is recovered from the FT service. This is because the FT capacity charge rate for FT service has already ensured the full recovery of capital;
- in such circumstances, the appropriate formula is:
  IT commodity charge rate = FT commodity CR × appropriate profit margin;
  and
- alternatively, the IT commodity charge rate could include a capital component, but in these circumstances the total revenue less the likely revenue from IT services should be recovered from FT services.[209]

Availability of delivery points

Clause 4.2(a)(iii) of the access arrangement provides that FT service will not be available at delivery points the subject of the existing haulage agreements. AGL questioned whether delivery points nominated in existing transportation agreements should be excluded from consideration for FT service agreements. AGL believes that access may become available during the term of the access arrangement. [210]

AGLES&M also noted in relation to this issue:

- the exclusion of delivery points which are the subject of existing transportation agreements from availability for FT services constitutes an exclusivity right;
- the commercial rationale for such a provision could be realised if an obligation were placed on Epic to rebate revenue from third parties to the existing users;
- while other rights may constrain Epic's ability to offer services to other users in the context of existing capacity of the pipeline system, these other constraints are likely to be less restrictive with regard to future capacity;
- in relation to the condition in clause 4.3(c)(ii) that IT services will only be available where the IT user has entered into an existing facilities access agreement, AGLES&M acknowledges that new users need to reach agreement with existing users as to the allocation of metered flows through a delivery point, but submitted that this should be resolved through the service provider;

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[206] Potential Energy submission 29 June 2001, p. 2.
[207] Potential Energy submission 29 June 2001, p. 2.
[208] Potential Energy submission 29 June 2001, p. 3.
[209] TGT submission September 2000, p. 7.
[210] AGL submission 12 September 2000, Attachment.

- clause 4.3(c)(ii) should be discarded, and that existing users' commercial interests could be restored through a rebate of revenue by Epic; and
- requirements of this nature should not feature in relation to new FT contracts.[211]

The Minister for Minerals and Energy submitted in relation to existing contractual rights and the possibility that some of these might constitute exclusivity rights, that the South Australian Government honours the principle of sanctity of contracts. The Minister stated that Origin and TGT would be adversely affected if their rights to nominate for capacity under the EHAs were amended.[212]

Information to be provided by Epic

Origin requests that a clause be inserted into the access arrangement requiring Epic to provide to any user, on reasonable request, information as necessary to show how Epic has calculated the capacity of the pipeline system in respect of a day.[213] Origin submitted that this is required for users to ascertain whether Epic is maximising the capacity of the MAPS.

Origin would also like Epic to be required to post on the electronic bulletin board (EBB) a seven-day forecast of the net available capacity of the pipeline system, and also be required to update this forecast daily.[214]

3.1.4 Epic's response to submissions

Epic has provided responses to some of the issues raised by interested parties.

Capacity of the pipeline system

Epic made the following comments in relation to submissions received by the Commission:

- there is a low probability that indicative capacity can be achieved on a day. To achieve indicative capacity, each of the 15 compressor units must operate simultaneously;
- furthermore, at each of the seven compressor stations on the main trunk pipeline, the two units at each station must be operating in series to eliminate redundancy in the system;[215]
- if 98 per cent of individual compressor units are available, there is only a 74 per cent probability of indicative capacity being achieved. If only 90 per cent of units are available, the probability of achieving indicative capacity slips to 21 per cent;[216] and

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211 AGLES&M submission 29 June 2001, pp. 3-4.
212 Minister for Minerals and Energy South Australia submission 8 September 2000, p. 1.
213 Origin submission 21 September 2000, p. 5 at 3.1.3.
214 Origin submission 21 September 2000, p. 7 at 3.3.1.
215 Epic submission 10 October 2000 Part C, p. 3.
216 Epic submission 10 October 2000 Part C, p. 4.

- the proposed FT service is to be available 365 days of the year, subject only to force majeure.[217] This is a different service to that offered under the existing transportation agreements.[218]

Epic's obligation to maximise capacity

Epic submitted in relation to this issue:

- there should not be inserted in the access arrangement an obligation on Epic to maximise the available capacity of the pipeline;
- the prospect of selling rebateable services provides Epic with the necessary incentive to maximise capacity;[219]
- furthermore, any requirement for Epic to maximise capacity must be balanced against its obligation to minimise its consumption of system use gas;[220] and
- a clause requiring Epic to maximise capacity would lead to inefficiency were Epic required to do so even on days when users did not require it.[221]

Allocation of primary capacity

Epic's response to the suggestion that the maximum capacity of the system should be allocated to FT users is that it is inappropriate to allocate the maximum capacity to FT users. Epic reasons that this would mean that third parties seeking access would be required to deal with the existing users to obtain IT services.[222]

Epic also responded to Origin's contention that net available capacity should be allocated among FT users pro rata based on their MDQ. Epic submitted that its proposed capacity allocation structure provides more flexibility to users and allows Epic to offer a greater variety of services to users.[223]

The relationship between PCQ, MDQ and net available capacity

Epic submitted that its definition of MDQ is preferable to Origin's because it prevents users 'hoarding' capacity at delivery points by nominating their full MDQ at each delivery point.[224]

Epic disputes Origin's assertion that its definition of MDQ is inconsistent with the nomination procedure outlined in clause 18.3. Epic submitted that its approach to MDQ limits the potential for users to over-nominate at a point to inhibit third party access.[225] In response to Origin's contention that the access arrangement prevents FT

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[217] Epic response to submissions, 1 February 2000, p. 8. and Epic submission 10 October 2000 Part C, p. 3.
[218] Epic submission 10 October 2000 Part C, p. 3.
[219] Epic's response to Origin's submission 31 October 2000, p. 1 at 3.1.
[220] Epic's response to Origin's submission 31 October 2000, p. 2 at 3.1.
[221] Epic's response to Origin's submission 31 October 2000, p. 2 at 3.1.
[222] Epic submission 10 October 2000 Part C, p. 3.
[223] Epic's response to Origin's submission 31 October 2000, p. 2 at 3.2.
[224] Epic's response to Origin's submission 31 October 2000, p. 2 at 4.1.
[225] Epic's response to Origin's submission 31 October 2000, p. 3 at 4.2.

users from accessing more than 323 TJ per day, Epic submitted that FT users may contract for IT services for quantities exceeding 323 TJ per day.[226]

The provision of non-specified services

In response to Origin's contention that Epic should be obliged to negotiate in 'good faith' 'reasonable terms' for the provision of non-specified services, Epic submitted that the Code already provides such a mechanism in the form of an arbitrator.[227]

In response to Origin's contention that revenue from some non-specified services should be allowed for in setting the allowed revenue from reference services, Epic submitted that it is not possible to determine revenue from non-specified services yet to eventuate.[228]

Variations to service

In response to Origin's comments regarding Epic's right to refuse to vary a service under clause 6.7, Epic submitted that clause 6.7(b) is consistent with sections 3.10 and 3.11 of the Code.[229]

Back haul and part haul services

Epic submitted:

> Epic has not seen any evidence that section 3.3(b) of the Code has been satisfied in relation to the regulatory period.[230]

Epic also made the following comments:

- it is not reasonable to incorporate a trigger event in the access arrangement in relation to these services;[231]
- a trigger mechanism is unnecessary because should a request for back haul or part haul services be made by a user or prospective user, it could simply be dealt with by an arbitrator under the current access arrangement;[232] and
- the access arrangement provides a sufficient reference point for such an arbitration.[233]

IT service

Epic submitted in relation to this issue:

- Epic will not sell IT service unless there is incentive for it to do so;[234]
- Epic is prepared to sell interruptible capacity at less than the IT rate if it is necessary to do so to stimulate usage;[235]

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226 Epic's response to Origin's submission 31 October 2000, p. 3 at 4.2.
227 Epic's response to Origin's submission 31 October 2000, p. 3 at 5.1.
228 Epic's response to Origin's submission 31 October 2000, p. 3 at 5.2.
229 Epic's response to Origin's submission 31 October 2000, p. 4 at 5.4.
230 Epic submission 29 June 2001 at 3.2.
231 Epic submission 29 June 2001 at 3.3.
232 Epic submission 29 June 2001 at 3.3.
233 Epic submission 29 June 2001 at 3.3.
234 Epic submission 11 October 2000 Part C, p. 10.

- where IT service uses existing delivery facilities, there is a rebate to existing users;[236]
- since to date there has been no interruptible service utilised, it is impossible to predict future utilisation and so attribute revenue;[237] and
- if uncontracted firm capacity were to become available, then until firm capacity was again fully contracted, IT service would effectively be a firm service. In this instance, IT users should contribute toward firm capacity costs.[238]

3.1.5 Commission's considerations

Capacity of the pipeline system

The Commission notes submissions by Origin, TGT and OEP that the capacity of the pipeline is well in excess of 323 TJ per day.

The Commission also notes Epic's response that FT service is offered to a higher degree of probability than under the EHAs, and that therefore a lower maximum capacity is appropriate.[239] However, the Commission considers that several clauses of the access arrangement give Epic a broad discretion to curtail services, potentially without substantial financial penalty. For example, clause 24.1 allows Epic to curtail services in circumstances where the capacity of the pipeline system is:

> …for any reason, inadequate to accommodate the Scheduled Quantities and all of the quantities that have been scheduled for Other Users for that Day…

Furthermore, the definition of force majeure in clause 34 is quite broad. Clause 34.1(a)(iii) in particular would allow Epic to curtail service without penalty in a wide range of circumstances that include breakages, accidents or repairs to plant, machinery, pipelines and equipment.

The Commission takes the view that the effect of these clauses is to lessen the degree of probability to which FT service is offered. The availability of FT service as set out in the access arrangement is not consistent with Epic's statements on this matter. In view of the substantial discrepancy between system primary capacity and the maximum capacity of the pipeline, the Commission considers that it is reasonable that Epic should be liable for financial penalty in the event that it curtails, discontinues or interrupts FT services. In particular, if an FT user has its service curtailed or interrupted, Epic should forfeit the proportion of any capacity charge for that day equal to that proportion of the service that was subject to curtailment, discontinuity or interruption.

The Commission proposed to Epic that this issue should be clarified by amending clause 4.2(a). In response, Epic proposed that it is more consistent with the liability

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235 Epic submission 11 October 2000 Part C, p. 10.
236 Epic submission 11 October 2000 Part C, p. 10.
237 Epic submission 11 October 2000 Part C, p. 10.
238 Epic submission 11 October 2000 Part C, p. 10.
239 Epic submission 11 October 2000 Part C, p. 3. Also see Response of Epic Energy to the submissions made on the access arrangement for the Moomba to Adelaide pipeline, 1 February 2000, p. 8.

provisions of the access arrangement to amend clause 24.6.[240] Epic proposed that the introductory paragraph to clause 24.6 be amended as follows:

> The Service Provider will only be liable for any losses, costs, damages or expenses (and in respect of clause 24.5(a) this includes, but is not limited to, the proportion of any Capacity Charge for that Day equal to that proportion of the Service of any FT User whose Service is interrupted or curtailed under clause 24.1)…

The Commission has examined Epic's proposed amendment to clause 24.6 and considers that the proposed amendment does not achieve the intended outcome. In particular, Epic's proposal does not make it clear that Epic will forfeit the capacity charge (or part thereof) in circumstances where it curtails an FT user. Rather this is left as a matter open to dispute to be resolved in a Court. Accordingly, the Commission requires Epic to comply with amendment FDA3.1.

Amendment FDA3.1

For the access arrangement to be approved, the Commission requires Epic to insert the following wording into clause 24:

> Where an FT Service is curtailed, interrupted or discontinued pursuant to clause 24.1 the Service Provider will forfeit the proportion of any Capacity Charge for that Day equal to the amount of haulage service curtailed, interrupted or discontinued.

Even with the Commission's proposed amendment to clause 24, the Commission considers that the system primary capacity has not been correctly specified. The system primary capacity is determined in reference to a maximum pipeline capacity of 393 TJ per day and therefore does not take into account the recent expansion of the pipeline for National Power (now Pelican Point Power).

The Commission considers that the additional capacity created by the expansion to the MAPS carried out for Pelican Point Power should be taken into account. This issue is discussed further in section 3.5.5 of this *Final Decision*.

The Commission's requires clauses 2.1, 2.2, Schedule 1 of the access arrangement and the Access Arrangement Information to be amended to include the expansion for Pelican Point Power. This would involve an increase of system primary capacity to 348 TJ per day. This is consistent with the Commission's approach in Chapter 2 where the ORC was calculated on the basis of a maximum capacity of 418 TJ per day and tariffs are to be determined on the basis of a system primary capacity of 348 TJ per day.

The Commission requires Epic to comply with amendment FDA3.2.

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[240] Epic final decision submission #1, 23 August 2001, p. 5.

Amendment FDA3.2

For the access arrangement to be approved, the Commission requires Epic to include the National Power (now Pelican Point Power) expansion in the access arrangement.

The Commission requires Epic to amend clause 2.1 to include the Pelican Point Power expansion.

The Commission also requires Epic to amend clause 2.2 such that the System Primary Capacity of the Pipeline System includes the capacity of the Pelican Point Power expansion, that is 348 TJ per day. The Commission also requires clause 2 to be amended to take into account the eighth compressor at Wasleys.

The Commission also requires Epic to amend Schedule 1 to the access arrangement to take account of the Pelican Point Power expansion in the capacity of the Pipeline System. The Commission also requires Schedule 1 to be amended to take into account the eighth compressor at Wasleys.

The Commission also requires Epic to amend the Access Arrangement Information to take account of the Pelican Point Power expansion in the capacity of the Pipeline System. The Commission also requires the Access Arrangement Information to be amended to take into account the eighth compressor at Wasleys.

Epic's obligation to maximise capacity

The Commission does not accept Origin's suggestion that a clause should be inserted into the access arrangement requiring Epic to maximise the available capacity of the pipeline system.[241] It is not clear how such a requirement might operate in practice and it may be that such a requirement could induce unintended outcomes. The Commission's preference is for Epic to face economic incentives that encourage Epic to maximise throughput of the pipeline.

Allocation of primary capacity

The Commission does not agree with Origin's views in relation to the allocation of net available capacity.[242] The Commission would prefer net available capacity to be allocated as IT and non-specified services. As noted above, the Commission's preference is for capacity in excess of maximum firm capacity to be available on an interruptible basis as this provides greater flexibility and greater access to the pipeline for third parties.

The relationship between PCQ, MDQ and net available capacity

The Commission regards the definition of MDQ currently included in the access arrangement as appropriate. It allows a reasonable amount of flexibility to users, when applied in conjunction with clause 18.3. Clause 18.3(c) of the revised access arrangement allows users to nominate an amount at a delivery point in excess of their PCQ up to the balance of the net available capacity that is available after each user has been allocated the amount nominated at that delivery point up to their PCQ.

[241] Origin submission 21 September 2000, p. 5 at 3.1.
[242] Origin submission 21 September 2001, p. 6 at 3.2

Origin's contention that FT users can not access capacity above 323 TJ is not justified. Clause 18.3(a) states that 18.3 applies only to agreements for FT service. Therefore, FT users may obtain quantities of gas in excess of maximum firm capacity as IT or non-specified service. Accordingly, the Commission does not accept AGLES&M's assertion that spare capacity on the MAPS is unavailable.

Epic's proposal that MDQ be defined as the sum of PCQs has been the subject of significant comment. If users did not have flexibility to shift contracted PCQs between delivery points then Epic's proposal would impose substantial limitations. In particular, users might need to contract for a total MDQ well in excess of their expected maximum throughput on any one day in order to provide flexibility to meet demands that vary from day to day. Further, users would not be able to exploit aggregation benefits.

However, as discussed above, Epic's proposed access arrangement does provide flexibility for users to shift PCQs between delivery points. Consequently, users need not contract for annual maximum throughputs at each delivery point and users may exploit aggregation benefits.

The Commission notes that the flexibility afforded by Epic's proposed access arrangement is significantly less than the flexibility afforded under the existing haulage agreements, but this is not unreasonable. Under the existing haulage agreements only two shippers have access to the pipeline and these two users mostly operate at different delivery points. Thus, there is limited scope for the flexibility of the existing haulage agreements to result in conflicting rights.

Under the new environment where there will potentially be several users operating on the pipeline and potentially more than one user operating at delivery points, there is more scope for rights to conflict. In these circumstances the users' flexibility must be limited otherwise the rights of each user are likely to conflict. The Commission considers that the limitations imposed under the proposed access arrangement are a reasonable balance between providing flexibility and avoiding conflicts between the rights of users.

Origin suggested users can not access net available capacity. Net available capacity is defined in the context of a single delivery point. A user may obtain access to net available capacity if the user takes less than its PCQ at another delivery point. Therefore, net available capacity is nevertheless available at individual points.

In relation to Origin's proposed change to the definition of MDQ, the Commission takes the view that clause (b) of Schedule 2 to the access arrangement gives users a reasonable degree of flexibility as to how much capacity they may obtain at any delivery point on an hourly basis. Accordingly, the Commission considers that Origin's proposed amendment to clause 43.1 is unnecessary. Furthermore, where the capacity of a delivery point is limited, it is necessary that the ability of users to nominate above their MHQs at that delivery point is restricted accordingly.

The Commission does not agree with AGLES&M's view that clauses 18.3(c) and 18.5(d) give FT users scope to hoard capacity at particular delivery points to exclude IT users. The Commission considers that since FT users may not obtain FT capacity in

excess of their MDQ, and given also that FT users face an excess imbalance charge in respect of fluctuations that exceed eight per cent within a zone, the scope for such behaviour is limited.

Provision of non-specified services

The Commission acknowledges Epic's view that the sections of the Code detailing the arbitration processes give users some assurance as to Epic's conduct in negotiating the provision of non-specified services. The Commission takes the view that the inclusion of an explicit term requiring Epic to negotiate in good faith in relation to non-specified services would not enhance the protection afforded to users by the arbitration process established by the Code.

In relation to those non-specified services for which there has been limited requests in submissions, such as park and loan services, the Commission is satisfied that the negotiate and arbitrate model should be adopted in the first instance. If it becomes apparent that this model does not produce acceptable outcomes the Commission would reconsider requiring additional reference services at the next access arrangement review. The other non-specified services of back haul and part haul are discussed later in this section.

The Commission's view is that revenue from non-specified services should not form part of allowed revenue at this time, because the expected demand, and hence revenue, for these within the initial access arrangement period is uncertain. This approach will provide Epic with the incentive to maximise sales (and throughput of the pipeline system). This is in accordance with the Commission's views towards FT capacity discussed in this section of the *Final Decision*.

Variations to service

The Commission's view is that the wording of clause 6.7(b)(i) is similar to the test prescribed by section 3.10 of the Code. However, the meaning of 'prudent' is significantly different to that of 'reasonable'. If 'prudent' were accepted, Epic could refuse to vary a service for reasons relating only to Epic's profitability and commercial interests, whereas 'reasonable' would require a more global consideration that also takes into account the interests of users and possibly other relevant interests.

The Commission would also prefer the word 'commercial' to be used in clause 6.7(b)(i) in place of 'economic'. The Commission is concerned that Epic could interpret the term 'economic' to have a meaning such as 'avoiding waste or extravagance' when deciding whether or not to vary a service. Epic might refuse to vary a service on the grounds that it would incur higher costs in doing so, even if Epic would also earn higher revenues.

The Commission considers that for Epic to refuse to vary a service on the grounds that it would not be commercially reasonable to do so, it would need to consider a wider range of factors than merely saving costs; it might also consider potential revenues, future business opportunities, and the longer term viability of maintaining services.

The Commission considers that the wording of the Code in relation to this issue is preferable to the wording suggested by Epic in its access arrangement. Epic has indicated that it would be agreeable to the proposed amendment.[243]

Accordingly, the Commission requires, in amendment FDA3.3, that the words 'economically or technically prudent' in clause 6.7(b)(i) be changed to 'commercially or technically reasonable', to more closely reflect the wording of section 3.10 of the Code as well as commercial practice in the industry.

Amendment FDA3.3

For the access arrangement to be approved, the Commission requires that clause 6.7(b)(i) of the access arrangement be amended to read:

> it would not be technically or commercially reasonable for it to do so;

in order for clause 6.7(b)(i) to reflect the wording of section 3.10 of the Code.

Back haul and part haul services

Section 2.24 of the Code provides that:

> The Relevant Regulator must not refuse to approve an Access Arrangement solely for the reason that the proposed Access Arrangement does not address a matter that sections 3.1 to 3.20 do not require an Access Arrangement to address.

Section 3.3 of the Code provides:

> 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 combined effect of these sections is that the Commission can not require the service provider to include a reference tariff for any service that is not 'likely to be sought by a significant part of the market'.

In determining whether a 'significant' part of the market is likely to seek the service it would be inappropriate to have regard only to numbers or percentages; even if one person is likely to seek a service, it is appropriate to examine whether that person is (or could be) a significant player in the market.

[243] Epic final decision submission #1, 23 August 2001, p. 7.

'Likely' means at its lowest that there is a 'real chance or possibility' that something will occur, and at its highest that it is 'more probable than not' that an event will occur.[244]

In the light of these judicial interpretations, it is the Commission's view that a significant part of the market is likely to seek back haul service only in the event that an alternative source of gas becomes available via a pipeline that links into the bottom of the MAPS. The Commission is unable to ascribe a level of probability to such a development eventuating. The Commission notes that numerous interested parties have submitted that a back haul tariff should be included. The Commission also notes that Epic has declined to offer a back haul tariff at this stage, and remains opposed to its inclusion in the access arrangement.[245] However, the Commission takes the view that it is not clear that the tests of 2.24 and 3.3 are satisfied at this time, and is therefore unable to compel Epic to include a back haul reference service in the access arrangement.

With regard to part haul services, the Commission notes that numerous interested parties have submitted that a part haul tariff should be included in the access arrangement. The Commission particularly notes the submission by DIT listing numerous projects for the Upper Spencer Gulf region that may create significant demand for part haul services. The Commission also notes that Epic has declined to offer a part haul tariff at this stage, and remains opposed to its inclusion in the access arrangement.[246] However, it remains unclear at this stage whether, pursuant to sections 2.24 and 3.3 of the Code, a significant part of the market is likely to seek a part haul service. Accordingly, the Commission does not consider that it is able to compel Epic to include part haul service at this time.

In relation to the issue of a trigger mechanism, the Commission accepts the weight of submissions that a trigger mechanism in this circumstance is not especially helpful to access seekers. Accordingly, the Commission does not require Epic to include a trigger mechanism in the access arrangement. However, the evidence and requirements for these services will be reviewed at the time of the scheduled review of the access arrangement.

The Commission requested Epic to include a statement of pricing principles in the access arrangement to guide users in negotiating with Epic for back haul or part haul services under clause 4.1(b) of the access arrangement. However, Epic declined to include pricing principles and under the Code the Commission does not consider that it can compel Epic to include such principles at this time.

The Commission gave serious consideration to Potential Energy's submission that a description of the back haul and part haul services offered by Epic should be included. The Commission considers that section 3.2(a)(ii) of the Code could permit it to require such a description to be included in the access arrangement. However, it is not clear that such a description would significantly assist access seekers at this time. It is also not clear how such a description would interact with a potential arbitration process that

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244 See Bowen CJ in the *Tillmans Butcheries* case.
245 Epic submission 29 June 2001 at 3.3.
246 Epic submission 29 June 2001 at 3.3.

might be invoked should a potential user not be able to obtain these services on reasonable terms and conditions.

On the balance of evidence available at this time, the Commission considers that it may not compel Epic to include part haul and back haul services as reference services at this time.

IT service

There is some debate as to whether IT service should be offered at a discount to FT services.[247] Since Epic's revenue requirement is fully covered by FT services, it would be feasible for Epic to charge IT users the commodity charge rate only. However, the Commission considers that Epic should be given the incentive to maximise IT service, in order to maximise the capacity of the pipeline. If Epic were to charge the commodity charge rate only for IT services, its incentive to maximise capacity would be reduced considerably. The Commission also considers that it is reasonable for IT service to be more costly than FT service to encourage users to take up FT capacity. Once load factors are taken into account it may be the case that IT service is cheaper for some users than the FT service. Accordingly, the Commission proposes to allow the relationship between the IT and FT tariffs proposed by Epic for this initial access arrangement period (see FDA 2.5).

In relation to Potential Energy's submission that priority should be given to earlier IT nominations, the Commission considers that there is no precedent for a mechanism of this nature, and it would add complexity to the access arrangement. Giving priority to IT users who nominated early might increase the possibility for gaming under the access arrangement. Furthermore, it is preferable that IT users be able to nominate as late as possible, to take into account the vagaries of IT demand.

Availability of delivery points for FT service

Clause 4.2(a)(iii) excludes delivery points that are subject to existing transportation agreements. In regard to AGLES&M's submission that the exclusion of delivery points the subject of EHAs from availability for FT services constitutes an exclusivity right, the Commission takes the view that, on the basis of information presently available, this conclusion can not be sustained.

To require Epic to amend this clause may deprive existing users of pre-existing contractual rights, which section 2.25 of the Code prohibits.

Availability of delivery points for IT service

Clause 4.3(c)(ii) provides that IT service will be available from existing delivery facilities where an IT user has entered into an existing facilities access agreement. These restrictions on supply are intended to prevent Epic being required to provide IT service at a lateral point in breach of its EHAs.

In its *Disclosure of Confidential Information* document of October 2000, the Commission summarised the effect of clause 15.14.1 of the EHAs:

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[247] Potential Energy submission 29 June 2001 at 3.

> Clause 15.14.1 of the haulage agreement limits the circumstances in which the Pipeline Owner may provide interruptible services through a lateral. In essence, the clause provides that the Pipeline Owner may not offer interruptible capacity in a lateral in which firm capacity is reserved by the Shipper where the Shipper has notified the Pipeline Owner that there is sufficient unutilised capacity available in the lateral to enable the Shipper to offer lateral capacity on a firm basis.

The application of clause 15.14.1 of the EHAs could possibly see the shipper notifying the pipeline owner that sufficient capacity existed to offer the services itself, and proceeding not to use that capacity. Alternatively, the shipper might refuse to allow a third party to obtain IT service from the lateral, or might allow such access only at an excessive price or under unreasonably onerous conditions.

Were a shipper to engage in behaviour of this nature, their actions might raise issues under Part IV of the *Trade Practices Act* (TPA), or s.13 of the *Gas Pipelines Access (South Australia) Law* (GPAL).

Under s.13 of the GPAL, the service provider, or a person who is party to an agreement with a service provider, must not engage in conduct for the purpose of preventing or hindering the access of another person. This conduct could include refusing to sell a marketable parcel (within the meaning of the Code) on reasonable terms and conditions. This provision could potentially be invoked to prevent an existing shipper either from exercising an exclusivity right, or acting in any other way to restrict the access of a third party to service with respect to spare capacity in the pipeline system.

An existing facilities access agreement, made between a prospective IT user and an existing user, would enable the IT user to obtain capacity from the service provider at a delivery point the subject of an existing haulage agreement. Clause 4.3(c)(ii) of the access arrangement ensures that the access arrangement complies with clause 2.25 of the Code, and does not deprive the users of the rights contained in the EHAs.

The Commission takes the view that clause 15.14.1 is an exclusivity right. This is because by its terms, clause 15.14.1 expressly prevents Epic from supplying services at a particular delivery point to persons who are not party to the EHAs in circumstances where the shipper has notified Epic of sufficient spare capacity. Furthermore, the Commission considers that clause 15.14.1 does not merely entitle an existing user to obtain a certain volume of services. Clause 15.14.1 goes beyond this by conferring on an existing user the right to prevent services from being accessed by another user, even where the spare capacity exceeds the volume of service for which the existing user has contracted.

The Commission also considers that clause 15.14.1 is potentially anticompetitive, since it can prevent access to potential users where capacity is available.

If clause 4.3(c)(ii) were removed from the access arrangement, an issue would arise as to whether the access arrangement deprives existing users of an existing contractual right. While this issue was being resolved, IT users may not have adequate means of accessing the delivery points in question.

If clause 4.3(c)(ii) remains in the access arrangement, users will have a mechanism for gaining access to delivery points that are subject to EHAs. However, the Commission notes that when IT users negotiate with existing users to access these delivery points,

there is scope for existing users to engage in anticompetitive behaviour, either by denying IT users access, or by allowing access only on unreasonable terms.

Were existing users to engage in such behaviour, IT users could seek redress under either Part IV of the TPA or section 13 of the GPAL. On balance, this mechanism is likely to better address the interests of IT users.

Accordingly, the Commission considers that it is preferable that clause 4.3(c)(ii) remain in the access arrangement.

However, the Commission considers that it would be inappropriate for Origin or TGT to restrict access to delivery points on the basis of 15.14.1. Further, the Commission considers that access to delivery points should be provided on reasonable terms and conditions.

In its *Draft Decision* the Commission proposed several amendments to the access arrangement in respect of the EHAs. These are assessed in the light of Epic's response to the *Draft Decision*.

Proposed amendment A3.5 was:

> For the access arrangement to be approved, the Commission requires that it be amended to contain a provision in the following terms:
>
> This access arrangement takes effect subject to any contractual rights in existence prior to the date of lodgement of the proposed access arrangement, 1 April 1999, with the exception of Exclusivity Rights (within the meaning of the Code) that arose on or after 30 March 1995.

Epic's response to this amendment proposal was:

> Epic does not believe it is appropriate to restate specific provisions of the Code in its access arrangement.
>
> Epic proposes that a section be included at the start of its access arrangement stating that the access arrangement is subject to the Code.

Epic also inserted clause 1.4 into its access arrangement, which reads:

> This Access Arrangement must be read subject to applicable provisions of the Code, including those provisions dealing with Exclusivity Rights.

The Commission considers that the insertion of clause 1.4 into the access arrangement adequately addresses the issue of access by prospective users to delivery facilities subject to EHAs.

Proposed amendment A3.6 required:

> For the access arrangement to be approved, the Commission requires that clause 4.3, other than clause 4.3(g)(ii), as proposed in Epic's lodgement of 2 March 2000 be incorporated in the access arrangement, subject to adding the following to clause 4.3(c):

> For the avoidance of doubt, nothing in the Agreement requires or permits the Service Provider or User to observe or give effect to the terms of any Exclusivity Rights (within the meaning of the Code) that arose on or after 30 March 1995.

In response to proposed amendment A3.6, Epic amended clause 4.3 of its access arrangement as proposed in its lodgement of 2 March 2000.[248] However, Epic declined to amend clause 4.3(c) in accordance with proposed amendment A3.6, choosing instead to insert clause 1.4 into the access arrangement.[249] Epic reiterated its opposition to restating provisions of the Code in its access arrangement.[250]

The Commission considers that the insertion of clause 1.4 into the access arrangement adequately addresses the issue of access by prospective users to delivery facilities subject to EHAs.

Proposed amendment A3.7 required:

> For the access arrangement to be approved, the Commission requires that the definition, in clause 43.1, of 'Existing User Rights' proposed in Epic's lodgement of 2 March 2000 be incorporated in the access arrangement, subject to adding the following:
>
> The term 'Existing User Rights' does not include any Exclusivity Right (within the meaning of the Code) that arose on or after 30 March 1995.

In response to proposed amendment A3.7, Epic amended the definition of 'Existing User Rights' in clause 43.1 of the access arrangement as proposed in its lodgement of 2 March 2000.[251] However, Epic declined to amend the definition of 'Existing User Rights' as required by proposed amendment A3.7.[252] Epic restated its opposition to restating provisions of the Code in the access arrangement.[253]

The Commission considers that the insertion of clause 1.4 into the access arrangement adequately addresses the issue of access by prospective users to delivery facilities subject to EHAs.

Proposed amendment A3.8 required:

> For the access arrangement to be approved, the Commission requires that the definition, in clause 43.1, of 'Existing Delivery Facilities' proposed in Epic's lodgement of 2 March 2000 be incorporated in the access arrangement, subject to the deletion of references to laterals.

In response to proposed amendment A3.8, Epic amended the definition of 'Existing Delivery Facilities' in clause 43.1 in the access arrangement in accordance with its lodgement of 2 March 2000.[254] However, Epic declined to delete references to laterals

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[248] Epic submission 11 October 2000 Part A, p. 18.
[249] Epic submission 11 October 2000 Part A, p. 18.
[250] Epic submission 11 October 2000 Part A, p. 18.
[251] Epic submission 11 October 2000 Part A, p. 19.
[252] Epic submission 11 October 2000 Part A, p. 19.
[253] Epic submission 11 October 2000 Part A, p. 19.
[254] Epic submission 11 October 2000 Part A, p. 19.

as required by proposed amendment A3.8.[255] Epic indicated that it did not understand the rationale for the Commission's proposed amendment, and sought further clarification.[256]

The Commission considers that prospective users seeking access to delivery facilities the subject of EHAs may apply for arbitration. Under sections 6.7 and 6.18 of the Code, the arbitrator may override clause 4.3(c)(ii) to the extent that to do so would merely deprive an existing user of an exclusivity right. Accordingly, it is the Commission's view that Epic's response to proposed amendment A3.8 is satisfactory.

Information to be provided by Epic

In its proposed amendment A3.2 of the *Draft Decision*, the Commission required that Epic post on the EBB each day:

1. forecast maximum capacity for each delivery point, based on the gas specification and the conditions prevailing on the previous day; and

2. the forecast net available capacity, based on monthly forecasts that are provided by the FT users (under clause 18.1(c)).

Epic has complied with proposed amendment A3.2(2) by the insertion of clauses 18.5(c) and 18.5(d) into the access arrangement.

Origin suggested that Epic be required to provide information to users to demonstrate how it has calculated the capacity of the pipeline system in respect of a day. The Commission considers that this would be onerous. It is, however, reasonable to require Epic to show its reasonable and prudent estimate of the capacity for any day on the EBB. Epic should also provide information as to the availability of compressor units at any time. This will allow users to forecast with greater certainty how much capacity will be available.

The Commission accepts Origin's submission that Epic should post on the EBB a seven-day forecast of the net available capacity of the pipeline system and update this forecast daily. This will allow users to effectively plan downstream deliveries.

Epic considered that such forecasts would be of limited value because the accuracy of the forecasts would be subject to volatility in each of the variables used to calculate net available capacity and would be subject to the accuracy of the users own forward forecasts. Epic indicated that it would be prepared to provide the requested information if it was subject to a similar proviso that exists in 18.5(c).[257]

Accordingly, the Commission requires Epic to comply with amendment FDA3.4.

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[255] Epic submission 11 October 2000 Part A, p. 19.
[256] Epic submission 11 October 2000 Part A, p. 19.
[257] Epic final decision submission #1, 23 August 2001, p. 6, 7.

Amendment FDA3.4

For the access arrangement to be approved, the Commission requires that the access arrangement be amended such that Epic is required to post its reasonable and prudent estimate of the following information on the EBB each day subject to a similar proviso to that in clause 18.5(c):

- daily forecast for following month of number of compressor units likely to be available on the MAPS; and
- daily forecast for following seven days of Net Available Capacity of the pipeline system.

Release of unused capacity

The *Draft Decision* required, in proposed amendment A3.4:

> For the access arrangement to be approved, the Commission requires that it be amended to make provision for the service provider to require that capacity be transferred in specified circumstances. The circumstances are where:
>
> - in consequence of losing a customer to another supplier, an existing user no longer requires the volume of capacity attributable to that customer; and
> - the capacity is not released by the existing user;
>
> it must be transferred to the other supplier.
>
> Any such provision should be subject to the provisions of the relevant existing haulage agreement other than any exclusivity rights that arose on or after 30 March 1995.

Epic declined to make this amendment on the basis that it would be a breach of the Code to require Epic to amend its access arrangement in a manner inconsistent with existing contractual rights.[258]

Further analysis of this issue has been carried out be the Commission. In the light of this and subsequent legal advice, the Commission considers that the insertion of this amendment may effectively deprive a shipper of contractual rights existing under the EHAs. Accordingly, the Commission will not require Epic to make this amendment.

Available capacity and spare capacity

In its proposed amendment A3.3, the Commission required that the access arrangement be amended to provide that capacity that is released or surrendered by a user be dealt with as proposed by Epic in its letter dated 15 June 2000, to the effect that:

> capacity that is released by a user:
>
> (a) otherwise than under the trading policy clause 26.2,
>
> (b) for reason that a consumer or aggregator has changed suppliers

[258] Epic submission 11 October 2000 Part A, p. 18.

may be contracted by another user, or a prospective user:

(i) who is (directly or indirectly) supplying that consumer (or aggregator); and

(ii) without following the queuing process set out in clause 10.

Epic complied with proposed amendment A3.3 by inserting clause 26.7 into the access arrangement.

AGLES&M's stated that Epic's definitions of 'Available Capacity' and 'Spare Capacity' in clause 43.1 of the access arrangement are inconsistent with section 10.8 of the Code. The Commission notes that Epic has failed to amend its definitions of 'Spare Capacity' and 'Available Capacity' to reflect section 10.8 of the Code, in accordance with the second requirement of the *Draft Decision's* proposed amendment A3.1. Its definitions of both of these concepts fail to take into account the difference between contracted capacity and contracted capacity that is being used.

The Commission considers that this oversight is of minimal significance because IT service is not defined in terms of either spare capacity or available capacity. In clause 4.3(b), capacity available for IT service is defined in terms of 'Capacity'. 'Capacity' is defined in clause 43.1 as:

> The Capacity of the Pipeline System or (if the context requires) a part of the Pipeline System to deliver or (if the context requires) to receive, Gas;

This definition allows IT service to be obtained in respect of Pipeline capacity above 323 TJ per day.

Accordingly, the Commission considers that the incentive mechanism contained in clause 5.3 of the access arrangement will be successful in providing an incentive to users to release this capacity.

Origin submitted that priority for IT capacity referenced in clause 4.3(b) of the access arrangement should be cross referenced to clause 23. The Commission's view is that clause 23 does not explicitly state the circumstances in which persons with contracts for non-specified service rank in priority ahead of IT service. Clause 23.2 (b) provides that non-specified services will not rank ahead of FT services, but is silent as to when non-specified services rank ahead of IT services. Accordingly, the Commission does not propose to explicitly cross reference clause 4.3(b) to clause 23.

Clause 23.2 provides that Epic will notify a user in writing if it intends, in the case of a non-specified service, to vary the priority and sequence in clause 23.1. The Commission considers that if Epic intends to allow a non-specified service to rank above IT services, Epic should notify all users. Accordingly, the Commission requires Epic to comply with proposed amendment FDA3.30.

Rebate of IT revenues to existing users and IT users

In relation to AGLES&M's submission on this issue, the Commission notes the incentive mechanism in clause 5.3 of the access arrangement, which provides a rebate mechanism in respect of laterals and delivery points the subject of agreement between Epic and either existing users or FT users. The rebate is calculated monthly, and is

deducted either from the amount invoiced to the FT user under clause 31.1 or the amount invoiced to the existing users under the relevant EHA. The Commission considers that this addresses AGLES&M's query.

Definition of FT, IT and non-specified services

In its proposed amendment A3.1(1), the Commission required:

> That the access arrangement be amended to provide for the FT, IT and non-specified services set out in Epic's lodgement of 2 March 2000, subject to the proposed amendments in the remainder of this *Draft Decision*.

In response, Epic amended clause 4 of the access arrangement to comply with the amendment.

3.2 Terms and conditions of service

3.2.1 Code requirements

Section 3.6 of the Code requires that an access arrangement include the terms and conditions on which a service provider will supply each reference service. These terms and conditions must be reasonable according to the relevant regulator's assessment.

3.2.2 Epic's proposal

Epic's proposed access arrangement incorporates the terms and conditions of service at clauses 11–42. Technical specifications and forms associated with service provision are included as schedules to the access arrangement. FT and IT service contract forms are incorporated as Schedules 6 and 7, respectively, to the access arrangement.

Clauses that were the subject of submissions by interested parties and other clauses that the Commission considers must be reviewed are outlined in Table 3.1 below. Clauses that fall within the Code policy obligations of the service provider, such as trading policy, queuing and extensions and expansions policy, are considered in detail later in this chapter.

This *Final Decision* assesses the latest access arrangement provided to the Commission by Epic on 29 June 2001. In assessing the latest version of the access arrangement the Commission has drawn on submissions made in relation to previous versions of the access arrangement where relevant. However, this *Final Decision* particularly focuses on submissions to versions 29 August 2000 and 18 May 2001 that were provided by Epic since the Commission issued its *Draft Decision* on 16 August 2000.

Table 3.1: Clauses as proposed by Epic discussed in sections 3.2.4

Clause 9: Creditworthiness The service provider is not obliged to commence a service or to continue to provide a specified service unless the user or prospective user is able to satisfy the service provider of its ability to meet its contractual obligations. To ascertain whether this is the case, users and prospective users are obliged to provide to the service provider the information set out in Form 3 of Schedule 5. If the service provider is not satisfied that the user or prospective user can meet its contractual obligations, it can require the user or prospective user to give security for those obligations under clause 9.2.
Clause 11: Commencement, term and extension Epic proposed minimum terms of two years for service. Epic will accept reasonable requests for a shorter term of agreement for IT service. Epic is prepared to negotiate with users to extend the term beyond the terms of the agreement. However, unless a term to the contrary is in the agreement, subsequent extensions are subject to the queuing policy.
Clause 12: Principal receipt and delivery obligations of user Clause 12 sets out the user's obligations regarding receipt and delivery of nominated quantities of gas; the temperature of gas at each receipt point; and odorisation. Users may not supply gas at the Moomba receipt point at temperatures exceeding 60°C.
Clause 13: Principal receipt and delivery obligations of service provider The service provider is on a day to accept at the receipt point(s) a quantity of gas up to the final nominated delivery quantities. The service provider is to deliver to the user at the relevant delivery points final nominated delivery quantities. Gas is to be supplied at a temperature no greater than 48°C and within specified pressure limits.
Clause 15: Gas quality Clause 15 establishes the specification for gas supplied to the system by users. It also describes the actions the service provider will take to deal with non-specification gas that enters the system. It includes the power to issue an operational flow order to the user to restrict or terminate supplies of non-specification gas into the system, and to vent gas.
Clause 17: Retention allowance Users are to supply system use gas to the service provider at no cost to the service provider. Retention allowance for FT service is to be calculated by multiplying the retention allowance percentage for that day by the quantity.

Clause 18: Forecasting, nominating and scheduling of service
For both FT and IT service the user must give the service provider a copy of confirmation from the producers that they will supply the quantities nominated, not later than 1730 on the day. If confirmation for a receipt point is not received in time, the user will not be entitled to service the following day. Not later than 1100 on each day, an FT user must nominate the quantities of gas for the following day to be delivered by the service provider at each delivery point, the sum of which quantities must not exceed the MDQ. If the sum of the user's nominations exceed the MDQ, the service provider will reduce those nominations on a pro rata basis so as to total the MDQ. If the user fails to make a nomination by 1100, it is not entitled to FT service on the following day. The service provider will post on the EBB by 1530 hours the amount it estimates will be available for IT service the following day. IT users must nominate the quantities of gas to be delivered by the service provider the following day by 1600 hours. If nominations for IT service exceed the capacity available at a delivery point for IT service, the service provider will allocate capacity between all IT users pro rata based on their respective nominations.
Clause 19: Imbalance and zone variation Under clause 19.3(a), if on a day an excess imbalance exists, an excess imbalance charge will be payable by the user. The excess imbalance charge will be calculated by multiplying the number of gigajoules of the excess imbalance by the excess imbalance charge rate. Under clause 19.4(a), the service provider will post a notification on the EBB as soon as the service provider becomes aware of an excess imbalance or of the likelihood of an excess imbalance. Clause 19.4 also describes the actions the service provider may take to remedy any excess imbalance.
Clause 20: Imbalance trading Imbalance trading is an alternative means of clearing an imbalance.
Clause 21: Allocation of receipt point quantities If the total quantity of gas supplied to a shared receipt point in a day is equal to the sum of confirmed quantities, each user is to be taken to have received its confirmed quantity. If the total quantity of gas supplied is greater or less than the sum of confirmed quantities, each user is to be taken to have received the proportion the user's confirmed quantity bore to the total measured quantity.
Clause 22: Allocation of delivery point quantities This clause outlines a method for allocating delivery point quantities at unmetered and metered facilities.
Clause 23: Priority of service If on a day there is insufficient Capacity in the Pipeline System to deliver all Gas nominated by users on that day, clause 23 outlines the priorities in which gas will be allocated. The service provider may, by written notice to a user, vary the priority and sequence outlined in clause 23.1 to accommodate a non-specified service.
Clause 24: Curtailment and interruption Epic proposes rights to curtail, interrupt or discontinue services, on one hour's notice (or more or less as stipulated by the service provider) to deal with a shortfall in system capacity in circumstances that are not within the control of the user.

Clause 25: Operational flow orders

An OFO is an announcement by the service provider of operating conditions, attributable to the conduct of the user, that breach the user's obligations under the agreement. It is conduct that adversely affects, or has the potential to adversely affect, the provision of services to other users. The OFO directs the user to take specific action to correct the conduct.

Epic proposes that while an OFO is in effect the user will pay an amount equal to the default charge rate for each GJ of gas in respect of which the user is at variance. The default charge rate is set out in the Tariff Schedule.

Clause 27: Electronic bulletin board

Epic proposes that all operational and other 'day to day' communications between the service provider and the user take place on an electronic bulletin board (EBB). This would extend to all nominations by the user, the scheduling of all quantities for a day by the service provider, and the issuing of curtailment and other notices by the service provider.

The user will be solely responsible for monitoring the EBB and its facsimile machine at all times.

Clause 28: Receipt and delivery points

This clause sets out the service provider's requirements for ownership, access to, operation and use of equipment at receipt and delivery points.

Clause 29: Measurement at receipt and delivery points

The quantity and quality of gas is to be measured in accordance with the terms of Schedule 9.

Clause 32: Payment

If a user disputes an invoice, it would have to notify the service provider in writing by the due date for payment of the invoice, specifying the amount in dispute and the reasons for the dispute.

Clause 34: Force majeure

If a party can not perform an obligation wholly or partly because of force majeure, it will be excused the corresponding amount of liability to the other party.

Force majeure will not relieve either party from the obligation to pay for gas previously delivered.

Force majeure will only suspend or reduce the user's obligation to pay any money payable under the agreement where, and to the extent that, the force majeure prevents the service provider from delivering the relevant service.

Clause 35: Liability and indemnity

Under clause 35.3, a user who is fraudulent or shows wilful disregard to their obligations will be liable to the other party in respect of loss or damage arising from that fraud or wilful disregard.

Clause 36: Default and termination

If an event of default by the user occurs, such as if the user defaults in the performance of a material obligation, the Service Provider may terminate the agreement or suspend its obligations.

If the service provider defaults in providing the specified service or in the performance of a material obligation, the user may terminate the agreement.

Clause 37: Dispute resolution and independent experts
If any dispute, controversy or claim arises, the parties are to follow the procedures set out in the clause. This is a two-stage process, initially involving senior managers or executives and a mediator if the parties agree to that. Failing resolution, there is recourse to an independent financial or technical expert, depending on the nature of the dispute.
Clause 38: Assignment
The service provider may, without the consent of the user, assign the whole or any part of its rights under the agreement to any transferee of an interest in the pipeline system. Such assignment will not be effective, however, until the assignee executes a Deed of Covenant in favour of the user agreeing to be bound by the agreement. An assignment by the user is to be conditional upon, and will not be binding until, the assignee has: executed a deed of covenant in favour of the service provider agreeing to be bound by the agreement; and reimbursed the service provider's costs (clause 38.2).
Clause 39: Confidentiality
The service provider is obliged to keep confidential all confidential information received from the user except with the prior written consent of the disclosing party or in the circumstances specified in the clause. Permitted disclosure is subject to the service provider obtaining a written undertaking of confidentiality from the person to whom the information is to be given, and in accordance with the user's agreement to disclose certain matters set out in clause 39.3.
Clause 40: Access to Information
The user does not have a right to be provided with any information in relation to employees of the service provider or service providers supplier, except that the service provider will provide names and contact details of relevant persons in accordance with clauses 32, 37 and 38.
Clause 41: Notices
The service provider will provide most notices to users through the EBB. Notices that are required to be provided in writing will also be communicated in another written form.
Clause 43: Definitions and interpretation
This clause defines terms used in the proposed access arrangement and states how its provisions are to be interpreted.

3.2.3 Submissions by interested parties

The Commission received a large number of submissions in respect of the terms and conditions proposed in the access arrangement. Many of these comments appear to be minor or specific in nature. For example, Epic has suggested that many of the submissions are of a 'low level' nature.[259] In response, Origin stated that the draft access arrangement in its current form is unacceptable and does not meet the requirements of the Code in that it fails to take into account the interests of users, and that the proposed terms and conditions are not reasonable.[260] Origin also submitted that the Commission must ensure that the approved access arrangement represents a balanced position between the legitimate interests of all parties.[261]

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[259] Epic's response to Origin's submission 31 October 2000, p. 1.
[260] Origin letter on MAPS access arrangement 11 July 2001, p. 2.
[261] Origin letter on MAPS access arrangement 11 July 2001, p. 2.

The Commission is of the view that there is some merit to Origin's submission and has therefore undertaken an assessment of the terms and conditions in the access arrangement. This approach aims to ensure that the access arrangement as a whole is broadly consistent with the principles of the Code and to ensure that the service provider does not exercise its market power through the imposition of onerous terms and conditions.

Clause 9 Creditworthiness requirements

Origin submitted that to satisfy the creditworthiness criteria a prospective user should be able to demonstrate that it is able to:

(a) pay all charges which will be levied on it; and

(b) meet any liability it may incur to Epic under the agreement.[262]

Origin also noted that:

- pursuant to (b) above, all users should be required to take out $100 million of general liability insurance as a precondition to obtaining service; this is necessary to prevent all users suffering loss arising from damage caused by a user to the pipeline;[263]
- Epic should also be required to obtain $100 million of general liability insurance, to protect users from costs arising from damage to the pipeline from Epic's default, a user's default or from force majeure.[264]

In response to Origin's submissions, Epic submitted that it proposes to add a new section into the access arrangement dealing with insurance.[265] No such provision appears in Epic's access arrangement of 29 June 2001.

Commission's considerations

The Commission takes the view that the service provider, users and prospective users should have adequate insurance cover. The operation of the pipeline system could be jeopardised if one party did not have adequate insurance and damage occurred to the pipeline system.

Epic indicated that it would be agreeable to incorporating a requirement for insurance, but suggested that this should be provided, at the service provider's discretion, as part of the creditworthiness requirements so as to avoid any unnecessary costs being incurred by a user.[266] The Commission largely accepts this reasoning and requires Epic to make changes to this effect in amendment FDA3.5.

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262 Origin submission 21 September 2000, p. 16 at 9.1.1.
263 Origin submission 21 September 2000, p. 16 at 9.1.2.
264 Origin submission 21 September 2000, p. 16 at 9.1.5, 9.1.6.
265 Epic's response to Origin's submission 31 October 2000, p. 5 at 9.1.
266 Epic letter 24 August 2001, p. 8.

Amendment FDA3.5

For the access arrangement to be approved, the Commission requires that Epic insert a provision into the access arrangement to provide that the service provider may, at its discretion, require a user to demonstrate that it has adequate insurance.

Origin suggested that Epic should be required to obtain sufficient insurance to cover potential damage to the pipeline system.[267] In its response to Origin's submission, Epic indicated that it would add a section into the access arrangement dealing with insurance.[268] Epic has inserted no such provision in the access arrangement. Epic indicated that the terms of its pipeline licence require it to insure against certain risks, and it is unreasonable for Epic to be required to effect insurance against any other risks than are required by virtue of the pipeline licence.[269]

The Commission agrees that it is sufficient that Epic complies with the insurance requirements of its pipeline licence.

Following the release of the Commission's *Draft Decision*, Epic indicated that it would comply with proposed amendment A3.9, which provided:

> For the access arrangement to be approved, the Commission requires that clauses 9.1 and 9.2 be modified so that:
>
> - they read as proposed by Epic in its letter dated 15 June 2000 to the Commission, as follows:
>
> 9.1 The Service Provider will not be required to commence the Specified Service for a Prospective User or to continue to provide the Specified Service to the User if the Prospective User/User is not able to satisfy the Service Provider of the ability of the Prospective User/User to fulfil its obligations under the Agreement.
>
> 9.2 If the Service Provider is not satisfied that the Prospective User/User will fulfil its obligations or continue to fulfil its obligations under the Agreement, the Service Provider may require, and the Prospective User/User will provide, security for those obligations to the Service Provider's reasonable satisfaction.
>
> - they are cross-referenced to Schedule 2, Form 3, of the access arrangement so as to clearly indicate the credit and financial information that the service provider can reasonably request of the user or prospective user.

However, clauses 9.1 and 9.2 as amended by Epic in its revised access arrangement differ from proposed amendment A3.9 in several respects. Firstly, clause 9.1 of the access arrangement reads 'a Service', rather than 'the Specified Service'. The practical effect of this is that the creditworthiness requirements extend to all services offered by Epic. The Commission considers that since Epic is likely to provide all services on credit, it is reasonable for Epic to extend the creditworthiness obligations accordingly.

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267 Origin submission 21 September 2000, p. 16 at 9.1.5.

268 Epic's response to Origin's submission 31 October 2000, p. 5 at 9.1.

269 Epic letter 24 August 2001, p. 9.

Secondly, clause 9.1 and 9.2 read 'contractual obligations', rather than 'its obligations under the Agreement'. The effect of these is that the creditworthiness requirements extend to all the terms of a contract entered into between Epic and users. The Commission considers that this is not a significant change.

Thirdly, users and prospective users must provide to Epic the information set out in Form 3 of Schedule 5 whenever reasonably requested by the service provider. The Commission considers that, since the information must be reasonably requested, this provision is acceptable.

Clause 11 Commencement, term and extension

Energy South Australia commented that clause 11.3(b) needs to be brought to the attention of users and prospective users.[270] Energy South Australia suggested that the right to extend the term of service under clause 11.3(b) would be exercised by some users but not by others.[271]

AGL submitted that a two-year term is unlikely to match customer requirements, and that a one-year term should be preferred.[272] AGL also submitted in respect of clause 11.3(a) that a one-year extension would be preferable.[273]

AGLES&M submitted that clause 11.3 is not unreasonable. AGLES&M felt that the minimum two-year term for agreement is an improvement over the seven-year term in the original access arrangement, but may still be overly restrictive in future wholesale gas markets.[274]

NRG Flinders submitted that there should be no automatic rollover or extension of contracts, and that new agreements should be negotiated at or before the termination of existing agreements.[275]

TGT accepted that the Commission's proposed amendment A3.10 met its concerns.[276]

Commission's considerations

In relation to submissions by AGL and AGLES&M as to the Term of the Agreement, the Commission maintains its position in the *Draft Decision* at p.148 that a two year term is reasonable for FT service, and that Epic should accept shorter terms for IT service, as amended by Epic in response to the *Draft Decision*.

In the Commission's *Draft Decision*, proposed amendment A3.10 required:

> For the access arrangement to be approved, the Commission requires that clauses 6.3, 11.1 and 11.2 be amended in the manner proposed in the lodgement of 2 March 2000, subject to adding to clause 11.2 a provision to the following effect:

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[270] Energy South Australia submission 29 June 2001, p. 3.
[271] Energy South Australia submission 29 June 2001, p. 3.
[272] AGL submission 29 August 2000 Attachment.
[273] AGL submission 29 August 2000 Attachment.
[274] AGLES&M submission 29 June 2001, p. 2.
[275] NRG Flinders submission 29 June 2001 at 1.3.
[276] Origin submission 6 July 2001, p. 2 at 1(iii).

> The Service Provider will accept reasonable requests for a shorter Term of Agreement for IT service.
>
> The Commission also requires that clause 11.3 be amended to read as follows:
>
> (a) Providing the User is not in default at the date of notice, the User may extend the Term for FT service by minimum periods of 2 years at a time:
>
> (i) by giving written notice to the Service Provider not less than 3 months prior to the Termination Date; or
>
> (ii) by giving notice at a time and in a manner previously arranged with the Service Provider.
>
> (b) Where the Agreement is for IT Service, the Term will automatically extend on a year by year basis from the Termination Date unless:
>
> (i) the User has given written notice of termination to the Service Provider under clause 36.5;
>
> (ii) the User is in default under the Agreement at the Termination Date.

In response to the first part of A3.10, Epic responded that it would insert a provision into the access arrangement to provide for it to accept reasonable requests for a shorter term for IT service. Epic has made this amendment.

In response to the second part of A3.10, Epic submitted:

> Epic will amend clause 11.3 to reflect the proposed amendment. The change in queuing policy and the shorter time for exercise of the right to extend the term for FT Service creates an issue on how Epic should (for the purposes of the queuing policy) deal with Spare Capacity and the rights of an FT User to extend its contract – that is, whether or not Epic should "reserve" Spare Capacity (equivalent to that contracted to the FT User) and thus exclude that amount of capacity from the queue on the expectation that the FT User will exercise the right to extend. If the FT User does not exercise the right then Prospective Users that have made an application earlier in time may have been prejudiced by unnecessarily committing to an expansion.
>
> In the circumstances, Epic believes that:
>
> - capacity can not be reserved for an FT User on the assumption that they may exercise their right to extend; and
> - the right to extend should therefore have no priority status over any other Prospective User;
>
> FT Users seeking to exercise a right to extend must therefore be treated as Prospective Users and proceed through the queue. This may mean that they have to commit to an expansion to contract for FT Service.
>
> The position outlined above adopts a competitive situation and places the onus on an FT User to cover its position with its contracting approach.
>
> Epic proposes that the document also be amended to state this, and require that an FT User exercising the right to extend must proceed through the queuing process (and

> contribute to the cost of an expansion if there is inadequate spare capacity available at the time that the right is exercised).[277]

The Commission accepts Epic's proposition that the existing users should not have an automatic right to extend their term. If existing users possessed this right, capacity of the pipeline system could be locked up for a considerable period into the future. This would have the effect of perpetuating the current market structure. Accordingly, the Commission is satisfied with the current wording of clause 11.3 and does not require an amendment.

Accordingly the Commission does not require Epic to comply with the outstanding elements of proposed amendment A3.10 of the *Draft Decision.*

Clause 12 Principal receipt and delivery obligations of user

In relation to Schedule 2, Origin submitted that the hourly rate of flow of gas at receipt points is influenced by the manner in which the service provider operates the pipeline system, as well as by the users.[278] Accordingly, users should have only a 'reasonable endeavours' obligation to achieve a uniform rate of flow. Origin submitted that since it is difficult to identify whether a fluctuation in flow rates was caused by Epic or by users, a penalty charge for failure to achieve a uniform rate of flow should not be imposed on users.[279]

In response, Epic stated that only users can control how gas is to be supplied at the receipt point to the user. Accordingly, the user is to ensure that its supplier(s) provide gas to the users' requirements.[280]

Origin further submitted in relation to Schedule 2 that the service provider should not have an absolute discretion to alter the required hourly rate of flow at the receipt point, given that the service provider can impose an excess imbalance charge on users who can not comply with this hourly flow rate.[281] Origin submitted that the hourly rate of flow should only be changed by agreement between all users of a receipt point.[282]

In response, Epic submitted that it would consider amending the access arrangement to provide that it will not change the required hourly rate of flow at the receipt point without the consent of all users.[283] To date, Epic has inserted no such term in the access arrangement.

In relation to clause 12.3, Origin submitted that multiple users of a delivery point are unable to monitor their hourly take as required by paragraphs (b), (c) or (d) of Schedule 2. Origin submitted accordingly that any allocation of penalty charges between users for exceeding MHQ would be inequitable as between users.[284]

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277 Epic Part A response to ACCC *Draft Decision*, 10 October 2000, p. 20.
278 Origin submission 21 September 2000, p. 18 at 11.1.
279 Origin submission 21 September 2000, p. 18 at 11.1.2.
280 Epic's response to Origin's submission 31 October 2000, p. 5-6 at 11.1.
281 Origin submission 21 September 2000, p. 18 at 11.2.1.
282 Origin submission 21 September 2000, p. 18 at 11.2
283 Epic's response to Origin's submission 31 October 2000, p. 5-6 at 11.2.
284 Origin submission 21 September 2000, p. 18 at 11.3.1.

In response, Epic claimed that most users have the ability to measure gas on an hourly basis, and that such penalties are required to discourage users from taking more than their allocation, since this means that another user must take less than their allocation.[285]

Origin submitted that a user's hourly MHQ should be six per cent of their MDQ.[286] Origin submitted that this would be sufficient to maintain the integrity of the pipeline system.[287] Origin further submitted that this six per cent figure should be calculated on the basis of the total capacity of the pipeline system of 393 TJ per day, rather than 323 TJ per day.[288] Accordingly, Origin submitted that the figures of 144 per cent and 126 per cent in paragraph (c) of Schedule 2 should be replaced with 175 per cent and 153 per cent respectively.[289]

In response, Epic submitted that the MHQ proposed in its access arrangement is fair to all users.[290]

In relation to paragraph (c) of Schedule 2, Origin submitted that paragraphs (i) and (iv) are sufficient to maintain the integrity of the pipeline system, and that paragraphs (ii) and (iii) are unnecessary.[291] Origin submitted that the hourly limitations in paragraph (c) should be based on total deliveries from the pipeline system rather than deliveries into the two separate zones.[292]

Origin also commented that paragraph (d) of Schedule 2 should be replaced by the following:[293]

> The User must not take delivery of gas in aggregate at all Delivery Points in the Iron Triangle Zone in excess of:
>
> (i) 115% of 1/24th of the user's MDQ for that Zone in any 1 hour period;
>
> (ii) 105% of 12/24ths of the user's MDQ for that Zone in any period of 12 consecutive hours,
>
> If to do so would prevent the Service Provider from supplying another User that User's Scheduled Delivery Quantities for a Day.

Origin also made the following comments regarding clause 12 of the proposed access arrangement:

- scheduled delivery quantities are not a practical basis to determine MHQ limitations;[294]
- Schedule 2 assumes that all customers have a flat demand, which is not the case;[295]

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285 Epic's response to Origin's submission 31 October 2000, p. 5-6 at 11.3.
286 Origin submission 21 September 2000, p. 18 at 11.4.1.
287 Origin submission 21 September 2000, p. 18 at 11.4.1.
288 Origin submission 21 September 2000, p. 18 at 11.4.1.
289 Origin submission 21 September 2000, p. 19 at 11.4.1.
290 Epic's response to Origin's submission 31 October 2000, p. 6 at 11.4.
291 Origin submission 21 September 2000, p. 19 at 11.5.2.
292 Origin submission 21 September 2000, p. 19 at 11.5.3.
293 Origin submission 21 September 2000, pp. 19-20 at 11.6.1.
294 Origin submission 21 September 2000, p. 18 at 11.4.2.

- in relation to clause 12.3, minor excursions over the MHQ levels set out in paragraphs (c) and (d) of Schedule 2 do not pose a material threat to the operation of the pipeline system.[296] Accordingly, a penalty charge should not be imposed on users for failing to comply with these limits;[297]
- the integrity of the pipeline system will be sufficiently protected if Epic has the right to curtail deliveries of gas to a user who is violating the MHQ limitations in circumstances where that violation is a material threat to the operation of the pipeline system;[298]
- no specific charge should apply if the user breaches this provision.[299]

In response, Epic submitted that:

- it is prepared to discuss Origin's MHQ requirements on a case by case basis;[300] and
- the limits Epic has proposed are necessary to ensure the pipeline capacity is available each day for the benefit of all users.[301] Accordingly, the range within which users operate should not be broadened, which is the effect that Origin's suggestion would have.[302]

In relation to clauses 12.2, 12.4 and 15.2, Origin submitted that Epic should not be entitled to unilaterally change the gas specification, gas temperature or gas pressure.[303] Origin submitted that changes to specifications should occur only if required by law or if all users, prospective users, relevant producers and Epic agree to vary their existing contracts.[304]

In response, Epic refers to its response to the Commission's comments on changing the gas specifications if a national gas specification is approved.[305] Epic commented in that context:

> Epic can not be expected to allow gas to be supplied in to the pipeline system that might have a deleterious effect on the physical integrity or the capacity of the system. Equally, Epic will not cut across existing contractual rights.
>
> Obviously, in situations where emergency legislation is enacted, Epic will fully comply with direction.

Origin submitted that clause 12.4 should oblige Epic to operate the pipeline system in a way such that the users' ability to comply with their obligations under paragraphs (a) to (c) of that clause is not impaired or prevented.[306] It is to be assumed the Origin is referring to its obligations under clause 12.4 (a)(i) to (iii).

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295 Origin submission 21 September 2000, p. 18 at 11.4.2.
296 Origin submission 21 September 2000, p. 19 at 11.5.1.
297 Origin submission 21 September 2000, p. 19 at 11.5.1.
298 Origin submission 21 September 2000, p. 19 at 11.5.1.
299 Origin submission 21 September 2000, p. 20 at 11.6.1.
300 Epic's response to Origin's submission 31 October 2000, p 7 at 11.6.
301 Epic's response to Origin's submission 31 October 2000, pp 6-7 at 11.5.
302 Epic's response to Origin's submission 31 October 2000, pp 6-7 at 11.5.
303 Origin submission 21 September 2000, p. 20 at 11.7.1.
304 Origin submission 21 September 2000, p. 20 at 11.7.1.
305 Epic's response to Origin's submission 31 October 2000, p 7 at 11.7.
306 Origin submission 21 September 2000, p. 21 at 11.8.1.

In response, Epic stated that it considered that the current wording of clause 12.4 is fair and reasonable.[307]

In relation to clause 12.4 of the access arrangement, OEP made the following comments:

- an inlet temperature of gas of 60°C is a safer operating temperature than 71°C. Epic currently cools the gas through its plant after the receipt point, and the cost of operating this plant has been included in the access arrangement. If this function were to be performed by production plant operators rather than Epic, a new cooling plant may need to be constructed. This would increase the price of gas, despite the fact that the costs of gas cooling have already been incorporated into the access arrangement, delivering a windfall to Epic;
- such a shift in responsibility for cooling may increase the risk of stress corrosion cracking on the MAPS; and
- whoever cools the gas must be carefully assessed.[308]

Commission's considerations

The Commission takes the view that a 'reasonable endeavours' clause for users is not appropriate for clause 12. To preserve the integrity of the pipeline it is necessary to place binding obligations on users, and to impose penalty charges for non-compliance with these obligations.

With respect to the relationship between the pressure and volume requirements of users, the Commission takes the view that it is unreasonable that users be subjected to such onerous restrictions in relation to both volume and pressure on the MAPS. Given that it is essential that uniform pressures be maintained to preserve the integrity of the MAPS, users should have more flexibility as to volumes. Accordingly, Schedule 2(a)(i) should give users some flexibility at receipt points. It is unreasonable to expect that users will be able to supply exactly 1/24th of their scheduled receipt quantity each hour into the pipeline system. Accordingly, the Commission requires Epic to comply with amendment FDA3.6.

Amendment FDA3.6

For the access arrangement to be approved, the Commission requires that Epic amend clause (a)(i) of Schedule 2 to read as follows:

> (i) 110 per cent of 1/24th of the User's Scheduled Receipt Quantity at that Receipt Point.

In relation to hourly rates of flow, Origin submitted that hourly rates of flow at a receipt point should be changed only with the consent of all users at a receipt point. Epic

[307] Epic's response to Origin's submission 31 October 2000, p 7 at 11.8.
[308] OEP submission 31 October 2000, p. 12.

agreed to insert a provision to this effect into the access arrangement but did not do so. The Commission does not consider it necessary that all users agree to changes in hourly rates of flow. This would impose on Epic a procedure for changing hourly flow rates that was too cumbersome. However, the Commission takes the view that it is unreasonable that the service provider have an absolute discretion to alter the required hourly rate of flow at the receipt point and then be entitled, under clause 12.2, to impose an excess imbalance charge on users who can not comply with this hourly flow rate. Schedule 2(a)(ii) confers such a power on Epic. Accordingly, the Commission requires Epic to amend Schedule 2(a)(ii) to provide that Epic may unilaterally give users a higher hourly flow rate, but may not lower the rate unilaterally.

Amendment FDA3.7

For the access arrangement to be approved, the Commission requires Epic to amend clause (a)(ii) of Schedule 2 to the access arrangement to read:

> Such greater proportion of the Scheduled Receipt Quantity at the Receipt Point as the Service Provider may, in its absolute discretion, approve.

In relation to Origin's submission that users should not be required to pay a penalty charge for exceeding MHQ where multiple users use a delivery point, the Commission takes the view that any apportionment of penalty charges will be to some extent arbitrary. However, this is not a reasonable basis for excusing users from their obligations as to MHQ. In any case, clause 12.3 provides the incentive for users to obtain equipment that is capable of monitoring their take of gas on an hourly basis.

The Commission does not accept Origin's submission that hourly limitations should be a proportion of the capacity of the pipeline system, rather than a proportion of scheduled delivery quantities. Once FT users have nominated their scheduled delivery quantities, Epic may then sell IT service for the remaining pipeline capacity. If MHQs were based on the proportion of capacity reserved by a user, this could affect Epic's ability to deliver capacity to IT users. The Commission also takes the view that clause (b) of Schedule 2 gives users some flexibility to take larger amounts of capacity on an hourly basis.

In relation to Origin's submission that no penalty should apply for minor excursions of the limitations in Schedule 2 (c) and (d), the Commission takes the view that if these limitations are reasonable, then the imposition of penalties for non compliance is the preferred means of ensuring compliance.

In regard to Origin's submission that paragraphs (ii) and (iii) of Schedule 2(c) are unnecessary, the Commission considers that there is insufficient evidence at this point in time to warrant such a conclusion.

Concerning Origin's submission that the proposed limitations in Schedule 2(c) should be based on total deliveries from the pipeline system, the Commission considers that the current wording of Schedule 2(d) is reasonable in this respect.

With respect to Origin's submission that the temperature, pressure or gas quality should not be changed unless all users, prospective users, relevant producers and Epic agree to vary their existing contracts, the Commission notes the submission of OEP to the effect that the South Australian government will shortly legislate to introduce a gas quality specification.[309] The Commission considers that this is the most likely means by which any such change would be implemented. The Commission has required an amendment to clause 15 of the access arrangement in order to address this issue.

In relation to Origin's submission as to Schedule 2(d), the Commission does not accept that MHQs in the Iron Triangle Zone should be based on users' MDQs, for the reasons discussed above.

The Commission also considers that there is insufficient evidence at this point in time to justify the conclusion that paragraphs (ii) and (iii) of Schedule 2(d) should be removed. The Commission considers that provided the restrictions in Schedule 2(d) are reasonable, it is appropriate for a charge to apply to users who breach this provision. This is the most effective means to ensure compliance.

In its *Draft Decision*, the Commission required Epic to amend clause 12.4 to comply with proposed amendment A3.11. Epic has declined to make this amendment. Epic submitted in relation to this issue that:

- the temperature of gas entering the pipeline system must be less than 60° C, in order to ensure that the protective pipe coating is not damaged, and to reduce the risk of stress corrosion cracking;
- if a new user delivers gas at the Moomba receipt point, it would be reasonable to accept gas at the same temperature specification as faced by existing users; Epic indicated that it would amend the access arrangement to reflect this;
- Epic would amend the access arrangement to clarify that if the cooler capacity is exceeded, Epic will treat the expansion of the capacity of the cooler as a required new facility investment, or else part of a pipeline expansion;
- at new gas receipt points other than the Moomba receipt point, shippers must be required to meet the 60°C limit; and
- If this is not the case, Epic will treat the installation of the necessary gas coolers at the receipt point as a required new facilities investment.[310]

Epic has inserted clause 12.4(b) into the access arrangement as a compromise on this point. The Commission accepts this amendment as satisfactory.

In relation to safety concerns raised by the OEP concerning cooling of gas, the Commission is satisfied that Epic will not accept gas into the pipeline unless it has been acceptably cooled. Furthermore, the Commission notes that Epic has amended clause 12.4(b) of the access arrangement to prevent the capacity of coolers used to cool gas supplied at above 60°C being exceeded.

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[309] OEP submission 31 October 2000, p. 12.
[310] Epic submission 16 August 2000 Part A, p. 21.

In relation to OEP's concerns that the costs of cooling have already been included in the access arrangement, the Commission's view is that Epic's offer to cool the gas up to its existing capacity, and beyond that point to require new users to finance expansion of the cooling capacity, is reasonable.

Clause 13 Principal receipt and delivery obligations of service provider

Origin submitted that clause 13.3 is inappropriate as its exercise by Epic would affect the ability of users to take delivery of gas. Exercise of the clause by Epic might also place users in breach of their obligations to Envestra or their obligations to customers.[311]

In addition, AGL noted that any amendments proposed by the service provider can occur only in consultation with the user, in order to meet downstream obligations.[312]

In response, Epic stated that it would consider amending the access arrangement in response to Origin's comment.[313] Epic has amended clause 13.3 to address the concerns raised by Origin.

Commission's considerations

In relation to AGL's comments, the Commission considers that Epic's amendments to clauses 13.3(a) and (b), which remove Epic's discretion to make changes to clause 13.3, satisfying AGL's concerns.

Clause 15 Gas quality

The OEP submitted that the South Australian Government will shortly introduce by legislation a gas quality specification, which has been agreed to nationally.[314] The Office of Energy Policy supports the proposal that Epic be required to describe the steps that it will take to ensure that users are not adversely affected by the proposed change.[315]

Energy South Australia (Energy SA) submitted that the wording of clause 15.2 suggests that the service provider has a discretion as to whether it will adopt any uniform gas specification, when in fact no such discretion exists.[316] Energy SA further submitted that it recognises the need to provide for the acceptance of non-specification gas into the pipeline system if, following co-mingling, it conforms to the gas specification at each delivery point.[317]

Santos also expressed concern that Epic might not be obliged to accept the National Gas Specification under the terms of the access arrangement.[318]

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[311] Origin submission 21 September 2000 p. 21 at 12.1.1.
[312] AGL submission 12 September 2000 Attachment
[313] Epic's response to Origin's submission 31 October 2000, p 7 at 12.1.
[314] OEP submission re C2000/269 October 2000 at 12.
[315] OEP submission re C2000/269 October 2000 at 12.
[316] Energy SA submission 29 June 2001, p. 5.
[317] Energy SA submission 29 June 2001, p. 5.
[318] Santos submission 18 September 2000, p. 5.

Origin submitted as follows:

- the gas specification in Schedule 3 does not comply with the current Moomba gas specification. Accordingly, parties to the principal gas contracts providing for the delivery of gas from Moomba to Adelaide would not be able to have that gas delivered into the MAPS;
- clause 15.2 allows Epic to change the gas specification set out in the access arrangement if uniform Gas Specifications for transmission pipelines are adopted. Were this to happen, users who obtain gas under contracts whose specifications do not comply with the uniform gas specification would not be able to deliver gas into the MAPS;
- Epic should have a 'reasonable endeavours' obligation to manage non specification gas. In circumstances where all users are delivering non-specification gas into the MAPS, Epic should be obligated, if requested by all users, to accept delivery of that gas, unless to do so would damage the MAPS or downstream equipment;
- the access arrangement should set out certain tolerances from the gas specification within which gas will still be accepted by Epic. This would prevent unreasonably frequent curtailments of the supply of gas to customers;
- Epic's liability arising from steps that it takes to deal with the entry of non-specification gas into the MAPS should be defined more narrowly than in clause 15.3(b)(v). Epic should not be released from liability where Epic performs any of the actions in clause 15.3(b)(i) to (iii) negligently, or where Epic has not complied with the procedures in clauses 15.3(b)(ii) and (iii). Where Epic vents or flares gas in circumstances where there were other means of dealing with non-specification gas, Epic should be required to pay for or supply replacement gas;
- given that only Epic has equipment that can monitor the specifications of gas being delivered into the MAPS, Epic should be obligated to notify users immediately when non-specification gas is introduced into the MAPS. A user should not be liable to Epic for any loss that Epic would not have suffered had Epic complied with this obligation;
- clause 15 should be expressly subject to the *Gas Act (South Australia)* (the Gas Act), and provide:

  (a) that the user and Epic will comply with all orders given under the Gas Act;

  (b) that neither party will incur any liability under the access arrangement in respect of any act or omission of that party in compliance with a direction under the Gas Act;

- where Epic receives gas complying with the gas specification at the receipt point from all users on a day but then supplies non-specification gas at one or more delivery points, Epic should be required to indemnify all users to which it has delivered the non-specification gas.[319]

[319] Origin submission 21 September 2000, pp. 22-24.

In response to Origin's submission that Epic should indemnify users if it supplies non-specification gas, Epic submitted that clause 15.4 provides sufficient obligation on Epic in respect of this issue.[320]

In response to Santos' submission, Epic outlined its stance towards the National Gas Specification.[321] Firstly, Epic submitted that it can not be expected to allow gas to be supplied into the pipeline system that might have a deleterious effect on the physical capacity of the system.[322] Secondly, Epic does not propose to cut across existing contractual rights. Thirdly, in situations where emergency legislation is enacted, Epic will fully comply with direction.[323]

Commission's considerations

In relation to Origin's submissions as to the possible detrimental effects of the introduction of a National Gas Standard, the Commission takes the view that if such a standard is introduced, Epic will have no choice but to comply with it. This may place the access arrangement in conflict with the legislation introducing the National Gas Standard. This is because whilst the access arrangement details the gas specification in Schedule 3, the legislation would require a different specification. To resolve this issue, it is necessary to insert amendment FDA3.8 into the access arrangement.

Accordingly, to avoid any potential conflict between the access arrangement and the Law the Commission requires Epic to adopt the National Gas Standard if it becomes mandatory. If the Standard is voluntary, the Commission requires the access arrangement to contain a provision allowing Epic to adopt it. Accordingly, the Commission requires Epic to comply with amendment FDA3.8.

Amendment FDA3.8

For the access arrangement to be approved, the Commission requires that clause 15.2 be amended to include the following provisions:

> If at any time during the Term uniform gas specifications for transmission pipelines are required by law, the Service Provider will adopt the uniform gas specifications, and they will apply in lieu of the Gas Specification.
>
> If at any time during the Term voluntary uniform gas specifications for transmission pipelines are introduced into the Australian Gas industry, the Service Provider may adopt the uniform gas specifications, in which case they will apply in lieu of the Gas Specification.

The Commission considers that it is reasonable for Epic to refuse to accept non-specification gas into the pipeline system. Non-specification gas may cause damage both to the pipeline itself, and to the downstream equipment of other users. The

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320 Epic's response to Origin's submission 31 October 2000, p. 9 at 14.6.
321 Epic submission 11 October 2000 Part C, p. 8.
322 Epic submission 11 October 2000 Part C, p. 8.
323 Epic submission 11 October 2000 Part C, p. 8.

Commission considers that Epic should not be obligated to accept non-specification gas into the pipeline system.

The Commission concurs with Origin's submission that Epic's exclusion of liability in clause 15.3(b)(v) is too broad. The Commission considers that Epic should not be released from liability to the user where Epic performs any of the actions in clause 15.3(b)(i) to (iii) negligently, or where Epic has not complied with the procedures in clauses 15.3(b)(i) to (iii). Accordingly, the Commission requires Epic to comply with amendment FDA3.9.

In relation to Origin's submission that Epic should be required to exercise 'reasonable endeavours' in respect of non-specification gas, the Commission considers that if Epic complies with proposed amendment FDA3.9 there will be no need for such a provision. The Commission concurs with Origin's general proposition, but considers that the optimal outcome can be achieved through a clause dealing with Epic's liability for its actions in relation to non-specification gas.

The Commission considers that clause 15.3(d) should also exclude circumstances where Epic has used its power to vent or flare gas negligently or unreasonably. The decision to vent or flare gas is a serious one, and if Epic wishes to reserve such a power for itself, it must be prepared to take responsibility for circumstances where the power is exercised inappropriately. This is also dealt with in proposed amendment FDA3.9.

Amendment FDA3.9

For the access arrangement to be approved, the Commission requires that Epic amend clause 15.3(d) by adding the following provision:

> Provided that the service provider will not be indemnified to the extent that such losses, costs, damages and expenses result from its own negligence or default in complying with its obligations under the Agreement.

The Commission accepts Origin's submission that Epic should be required to notify users as soon as it becomes aware that non-specification gas has been introduced into the pipeline system. This appears to be a reasonable measure to improve safety and ensure the integrity of the pipeline system. Accordingly, the Commission requires Epic to comply with amendment FDA3.10.

Although it is reasonable to require the service provider to notify users as soon as non-specification gas is introduced into the pipeline system, failure of the service provider to comply with this requirement should not relieve a user of liability under clauses 15.3 (c) and (d). Irrespective of the requirement to notify users, the onus of ensuring that the pipeline system is not damaged by the introduction of non-specification gas should remain on users.

Amendment FDA3.10

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 15.3(b)(i) of the access arrangement:

> and will, as soon as it becomes aware that a User has introduced Non-Specification Gas into the Pipeline System, post a notice on the EBB notifying all Users of that fact.

In relation to Origin's submissions regarding directions made under the Gas Act altering gas quality, the Commission considers that it is not strictly necessary to insert a provision into the access arrangement to the effect that each party will comply with directions given under the Gas Act. This is because such directions are likely to be binding on the parties, irrespective of the wording of clause 15. Furthermore, it is unnecessary to insert a provision into the access arrangement that relieves each party from liability incurred as a result of compliance with a direction given under the Gas Act. This is provided under the force majeure provisions in clause 34.1(a)(i).

In relation to Origin's submission that Epic should indemnify users if it supplies non-specification gas, the Commission considers that clause 15.4 does not provide a sufficient obligation with respect to this issue. Clause 15.3(d) explicitly requires users to indemnify Epic in circumstances where users introduce non-specification gas into the pipeline system. The Commission considers that it is fair for the same obligations to be placed on Epic in the event that Epic is responsible for supplying non-specification gas. Such a circumstance might arise if Epic were to undertake works on the pipeline that involve hydraulic testing and water were to enter the system. Accordingly, the Commission requires Epic to comply with amendment FDA3.11.

Amendment FDA3.11

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 15 of the access arrangement:

> Where the Service Provider receives gas complying with the Gas Specification at the Receipt Point from all Users on a day but then supplies Non-Specification Gas at one or more Delivery Points, the Service Provider will indemnify the User from and against all losses, costs, damages or expenses that the Service Provider may suffer or incur as a result of the Non-Specification Gas entering the Pipeline System.

In relation to this amendment, and others which adjust the liability and indemnity of parties to the access arrangement, Epic has commented that they shift the balance of risk between the parties unacceptably in favour of the user. Epic submitted that all such provisions need to be viewed in the context of the entire agreement and the circumstances that lead to the inclusion of each provision in the access arrangement.[324]

[324] Epic letter 24 August 2001, pp. 2-3.

The Commission considers that it is reasonable to amend the liability and indemnity clauses. In the access arrangement proposed by Epic, these clauses tend to place excessive risk on users, and it is appropriate to shift the balance of risk towards the service provider.

In its *Draft Decision*, the Commission required Epic to amend clause 15 in accordance with proposed amendment A3.13. In response to the first requirement of proposed amendment A3.13, Epic amended clause 15.3(b)(ii) to read:

> will, if it issues an OFO, communicate that fact as soon as practicable to the person supplying such Non-Specification Gas to the user (if known) and request that such person terminate the supply of such Non-Specification Gas as soon as possible.

The Commission considers that this amendment is acceptable. In response to the second requirement of proposed amendment A3.13, Epic inserted clause 15.2 (b) into the access arrangement, which provides:

> The Service Provider will consult with the User to minimise the adverse impact of any changes under clause 15.2(a) to the extent reasonable and prudent.

The Commission considers that this amendment is acceptable.

Clause 17 Retention allowance

Origin made the following comments in relation to this issue:

- Epic should pay for system use gas;
- clause 17.1(c), which requires Epic to use its reasonable and prudent efforts to minimise its use of system use gas, is insufficient, as it would be very difficult for a user to establish that Epic has not complied with this obligation;
- the access arrangement contains no clear remedy for situations in which Epic has not complied with its obligation to minimise system use gas;
- the cost of compressor fuel is a significant factor in determining whether expansions of the MAPS should be achieved by looping or by additional compression. Epic's failure to pay for system use gas distorts this cost analysis, and could lead to an incorrect choice;
- if, in the future, a park and loan service is introduced, and the service provider is not paying for compressor fuel, the cost of park and loan services will be borne by current users;
- conversely, if a new entrant seeks back haul service, the price for the service will be higher than it needs to be, as the fuel cost savings from the provision of the back haul service will not be allowed for;
- Epic should pay for system use gas at a price that approximates the prevailing Moomba ex-field price;[325]
- Epic should have an obligation to provide on request such information to users as is reasonably required to justify Epic's calculation of the retention allowance in respect of a day. This will enable users to determine whether Epic is complying

[325] Origin submission 21 September 2000, p. 25 at 15.1.2.

with its obligation to 'reasonably and prudently estimate the total quantity of system use gas required for the provision of all services';

- provision should be made in the access arrangement for the release of system use gas. This would facilitate the reduction of linepack in the MAPS, to create capacity for the delivery of further gas. If the pipeline contains an excessive amount of system use gas, users may be unable to take adequate supplies of gas;
- system use gas may be classified as either 'Pipeline Gas' or 'Linepack Management Gas'. The former is consumed by Epic and should be paid for by Epic; the latter is not consumed by Epic, and should be returned to users when it is no longer required. Linepack Management Gas should be returned to the user it was borrowed from, in order to avoid transferring gas and capacity from one user to another.[326]

Epic's general response to Origin's comments on the issue of the retention allowance is that Epic has an incentive to ensure that maximum efficient capacity is available on a day.[327] Epic submitted that:

- inefficient operation of compression equipment would increase maintenance costs and increase the frequency of overhauls;[328]
- if Epic were required to pay for system use gas, this could result in outcomes that are not in the interests of any party;[329]
- the 'reasonable endeavours' requirement imposes a measurable standard on Epic to use system use gas efficiently. If either the regulator or a user believes Epic is not complying with this requirement, they may raise the issue with Epic.[330]

In relation to Origin's submission that Epic should be required to provide to users such information as is reasonably required to justify Epic's calculation of the retention allowance, Epic submitted that calculation of the retention allowance is sufficiently outlined in the access arrangement.[331]

Commission's considerations

The Commission takes the view that Epic should not pay for system use gas. If Epic was required to purchase system use gas, it would need to purchase small quantities of gas when demand was at its highest. Users are better placed to negotiate low prices for system use gas as an increment to their gas supply contracts.

While the Commission acknowledges that some issues arise as to Epic's consumption of system use gas, there are several mechanisms at work to ensure that Epic's consumption of system use gas is reasonable. Firstly, clause 17.1(c) of the access arrangement obligates Epic to use reasonable and prudent efforts to minimise the quantity of system use gas that is required for the operation of the pipeline system. In addition, inappropriate usage of compressors would increase wear and tear on the units,

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326 Origin submission 21 September 2000, pp. 24-25 at 15.4.3.
327 Epic submission 11 October 2000 Part C, p. 5.
328 Epic submission 11 October 2000 Part C, p. 5.
329 Epic submission 11 October 2000 Part C, p. 5.
330 Epic's response to Origin's submission 31 October 2000, p. 9 at 15.1.
331 Epic's response to Origin's submission 31 October 2000, pp 9-10 at 15.2.

leading to higher maintenance expenditure and potential outages. Thirdly, the economic incentives on Epic to minimise consumption of system use gas are the same whether Epic or users pay for it. This is because if Epic is required to pay for system use gas, then the costs will be passed on to users through the O&M component of pipeline costs.

In relation to Origin's submission that linepack management gas should be returned to the user it was borrowed from, the Commission takes the view that Epic's use of linepack gas may create some distortion in the quantities of system use gas required from users. However, at this stage there is insufficient evidence of this effect to require corrective action. Accordingly, the Commission does not require Epic to amend the access arrangement in this respect, but will monitor the issue and reassess it at the time of the scheduled review.

In relation to Origin's submission that clause 17.3 (d) should refer to gas scheduled to be supplied by a user rather than gas supplied by a user, the Commission considers that it is reasonable that the retention allowance should be calculated on the basis of gas actually supplied by a user. This will mean that the retention allowance reflects the amounts supplied by users.

In its *Draft Decision*, the Commission required Epic to comply with proposed amendment A3.14 by amending clause 17.1(c) to read:

> The service provider will use its best endeavours to minimise the quantity of system use gas that is required for the operation of the Pipeline System.

Epic declined to make this amendment. Epic submitted that if required to exercise its 'best endeavours' to minimise system use gas, it would be required to replace its compressors with the most modern and technologically advanced compressors and computer software available, even to reduce compressor fuel by a small amount.[332] Epic considers that a 'best endeavours' standard is too onerous, and that a 'reasonable and prudent' efforts standard is fairer.[333]

The Commission accepts that 'best endeavours' is an unreasonably high standard to attain and could require imprudent expenditure. Accordingly will accept clause 17.1 (c) in its current form.

The Commission accepts Origin's submission that Epic should have an obligation to provide, on reasonable request, such information to users as is reasonably required to justify Epic's calculation of the retention allowance in respect of a day. Given that Epic is to obtain system use gas from users free of charge, the insertion of such a provision will give additional transparency to Epic's consumption of system use gas.

Epic indicated that it agreed that such a provision would increase transparency. However, Epic expressed concern that this information might be used by persons other than the user if it were required to be provided to a user on a daily basis. Epic suggested that it could provide this information to a user on request at the end of the

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332 Epic submission 11 October 2000 Part A, pp 22-23.
333 Epic submission 11 October 2000 Part A, pp 22-23.

month as part of the monthly invoice. The Commission agrees with Epic's suggestion and requires Epic to comply with amendment FDA3.12.

Amendment FDA3.12

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into clause 17.3 of the access arrangement:

> The Service Provider will, on request by a User, provide on a monthly basis such information as is reasonably required to justify Epic's calculation of the figure indicated in clause 17.3(c)(i).

In relation to Origin's submission that system use gas that is not used should be returned to users, the Commission takes the view that if Epic underestimates or overestimates the amount of system use gas required for a day, this could be taken into account the following day, so that a draw down or build up of system use gas in the pipeline system is avoided. The Commission considers that it is preferable for Epic to be required to balance system use gas intake to minimise any discrepancy. Accordingly, the Commission requires Epic to comply with amendment FDA3.13.

Amendment FDA3.13

For the access arrangement to be approved, the Commission requires Epic to insert the following provision into the access arrangement:

> The Service Provider will calculate on a daily basis any discrepancy between the Total System Use Gas Quantity from the previous day and the amount of System Use Gas actually consumed (**System Use Gas Discrepancy**). The Service Provider will, as soon as practicable, balance its calculation of the Total System Use Gas Quantity to minimise the System Use Gas Discrepancy.

Clause 18 – Forecasting, Nominating and Scheduling of Service

AGLES&M questions whether clause 18 should be in the access arrangement, as changes to this section may be needed from time to time, and the process for amending the access arrangement may be too cumbersome.[334]

It also suggested that in clauses 18.1(b) and (c), the words 'user will nominate' should be replaced by the words 'user expects to nominate'.[335] This is to reflect the fact that these are forecasts only.[336]

Origin submitted that FT nominations should not have to be made by 1100 hours, as required by clause 18.3(b), but 1500 hours, on the basis that users do not have

[334] AGLES&M submission, 29 June 2001, p. 5.
[335] AGLES&M submission, 29 June 2001, p. 5.
[336] AGLES&M submission, 29 June 2001, p. 5.

sufficient information to make accurate daily nominations by 1100 hours.[337] If nominations must be given by 1100 hours, inaccurate nominations are likely to be given, with the result that customer demand may not be satisfied.[338]

Origin noted that FT nominations and IT nominations can be made simultaneously and suggested that IT users could be notified shortly after FT users as to whether their nominations have been successful.[339]

AGLES&M submitted that provision should be included in clause 18.3 (b) for the service provider to accept nominations well in advance, and accept changes up until the deadline.[340]

It also considered that the allocation methodology in clause 18.3 (c) might drive users to over-nominate at congested delivery points in order to ensure the maximum allocation.[341] AGLES&M submitted that the zonal balancing arrangements allow users with multiple delivery points to do this without penalty.[342] AGLES&M also submitted that the priority allocation to FT users who do not hold a PCQ at a particular delivery point appears to discriminate against IT users.[343]

Origin submitted that it is not necessary for users to provide a written confirmation that the producers can supply the nominated quantities, as required by clause 18.4(e) of the access arrangement. Instead, the access arrangement should provide that:

> The User will, unless it has notified Epic to the contrary, be deemed to have warranted to Epic that it can supply to Epic its nominated quantities for the following day.[344]

Origin submitted that the consequences of not providing written confirmation contained in clause 18.4(e) are excessive.[345] Origin submitted that these consequences should apply only where a user, despite having made a nomination, fails to provide gas to the receipt point.[346]

AGLES&M submitted that the requirements for formal confirmation in clauses 18.4 and 18.5 go beyond the existing arrangements, and are unreasonable and unnecessary, and suggested that an undertaking that similar nominations are made both to Epic and to the producers should be sufficient.[347]

AGLES&M submitted that 18.5(f) provides incentive for users to over-nominate in cases of potential congestion.[348]

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337 Origin submission 21 September 2000, p. 27 at 16.1.1.
338 Origin submission 21 September 2000, p. 27 at 16.1.2.
339 Origin submission 21 September 2000, p. 27 at 16.1.6.
340 AGLES&M submission, 29 June 2001, p. 5.
341 AGLES&M submission, 29 June 2001, p. 5.
342 AGLES&M submission, 29 June 2001, p. 5.
343 AGLES&M submission, 29 June 2001, p. 5.
344 Origin submission 21 September 2000, p. 28 at 16.2.1.
345 Origin submission 21 September 2000, p. 28 at 16.2.1.
346 Origin submission 21 September 2000, p. 28 at 16.2.1.
347 AGLES&M submission, 29 June 2001, p. 5.
348 AGLES&M submission, 29 June 2001, p. 6.

Potential Energy submitted that the proposed allocation of limited capacity amongst multiple IT Service users on a pro rata basis is unsatisfactory (as per clause 18.5(f)). As with FT Service users (via the queuing policy), priority should be given to earlier users relative to subsequent IT Service users.[349]

Origin submitted that FT users should have the right to request authorised variations not exceeding 20 per cent of their MDQ.[350] Origin submitted that this nomination right should be capable of exercise up to 0900 hours on a day, and should prevail over the rights of IT users. Origin gives two reasons to support this claim.[351] Firstly, IT users pay a capacity charge to reserve the capacity of the pipeline system.[352] Secondly, IT customers are likely to be harmed less than FT customers from interruptions in capacity. This is because FT customers tend to have firm needs, whereas IT customers have interruptible needs or alternative fuel sources.[353]

Origin further submitted that Epic should only be permitted to refuse to accept authorised variations where:[354]

> (a) this will prevent the service provider supplying the nominations of other FT users; or
>
> (b) there is insufficient capacity available in the pipeline system (where the available capacity is the total capacity of the pipeline system less the requirements of FT users and Existing users but not IT users).

AGLES&M submitted that 18.7(b) might encourage initial over-nomination by holders of firm capacity to the detriment of IT users.[355]

Origin submitted that:

- the words 'adversely affect' in clause 18.7(d) are ambiguous and without practical meaning, and give Epic an absolute discretion as to whether it accepts variations. Origin submitted that clause 18.7 should read:

  > The service provider shall be obliged to authorise an increase in the Final Nominated Receipt Quantity for a day unless, to do so, would prevent the service provider being able to deliver the quantities of Gas already scheduled for receipt from and delivery to Other users on that day.[356]

- the confirmation referred to in clause 18.7(e)(ii) is unnecessary. It should be sufficient that the user confirms that the additional gas can be supplied; and
- the effect of clause 18.7(g) is that when a user takes capacity above their MDQ, the user must pay the FT commodity charge rate and the IT commodity charge rate. In

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349 Potential Energy submission 29 June 2001, p. 2.
350 Origin submission 21 September 2000, p. 28 at 16.4.2.
351 Origin submission 21 September 2000, p. 28 at 16.4.2.
352 Origin submission 21 September 2000, p. 28 at 16.4.2.
353 Origin submission 21 September 2000, p. 28 at 16.4.2.
354 Origin submission 21 September 2000, p. 29 at 16.4.3.
355 AGLES&M submission 29 June 2001, p. 6.
356 Origin submission 21 September 2000, p. 29 at 16.4.4.

Origin's view this is inequitable. Having paid to reserve pipeline capacity, FT users should pay FT rates only.[357]

In response to Origin's submission that FT users' nominations should be made by 1500 hours, Epic submitted that the current timings are appropriate to the needs of all users and prospective users.[358]

In its letter of 29 August 2001, Epic proposed that FT and IT nominations could be made simultaneously, by 1100 hours.[359]

In response to Origin's submission that FT users should have a right to vary nominations by 0900 hours by up to 20 per cent of MDQ, Epic submitted that:

- this would affect other users and prospective users;[360]
- Origin's suggestion would result in a continuation of existing arrangements, and would substantially affect Epic's ability to offer an interruptible service that was not interruptible on a day;[361] and
- the access arrangement already allows a user to renominate its requirements downward as of right.[362]

This point is probably a reference to clause 18.7(c), which does confer such a right on FT users only. Epic further submitted that the access arrangement also provides that Epic will provide additional capacity requested by users, provided that to do so would not adversely affect the scheduled quantities of other users.[363]

Commission's considerations

In relation to AGLES&M's submission that clause 18 should be removed from the access arrangement, the Commission considers that it is necessary to have a clause in the access arrangement setting out matters such as forecasting, nominations and confirmations of service.

In relation to AGLES&M's submission that the words 'will nominate' in clauses 18.1 (b) and (c) should be changed to 'expects to nominate', the Commission takes the view that the meaning of the phrase 'forecast of the quantities…that the user will nominate' is not substantially different to that of the phrase 'forecast of the quantities…that the user expects to nominate', and a change is unnecessary. The word 'forecast' qualifies the word 'will', and makes it clear that the quantities of gas to be supplied are estimates only. If this were changed to 'expects to nominate', the clause contains a double qualification, the second of which is superfluous.

In relation to Origin's submission that FT users' nominations should be made by 1500 hours, the Commission accepts Epic's response that the current timings are appropriate, given the needs of all users and prospective users. The Commission does not accept

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357 Origin submission 21 September 2000, p. 29 at 16.4.4.
358 Epic's response to Origin's submission 31 October 2000, p. 10 at 16.1.
359 Epic letter 29 August 2001, p. 4.
360 Epic submission 11 October 2000 Part C, p. 6.
361 Epic submission 11 October 2000 Part C, p. 6.
362 Epic's response to Origin's submission 31 October 2000, p. 11 at 16.4.
363 Epic's response to Origin's submission 31 October 2000, p. 11 at 16.4.

Epic's proposal that both FT and IT nominations be made simultaneously if this involved bringing the deadline for IT nominations forward to 1100 hours. The Commission considers that the current deadlines for FT and IT service are acceptable.

In relation to AGLES&M's submission that provision should be included in clause 18.3(b) for the service provider to accept nominations well in advance, and accept changes up until the deadline, the Commission notes that clause 18.3(b) allows for nominations in advance, since it merely stipulates the latest time by which nominations may be received.

In relation to AGLES&M's submissions concerning clause 18.3(c), the Commission considers that the wording is reasonable, as set out in the section on services policy. In relation to AGLES&M's submission that FT users should not have priority over delivery points at which they have not reserved PCQ, the Commission considers that it is reasonable for FT users to take priority, as they are paying to obtain a higher quality service. The Commission takes the view that if IT users are unable to obtain sufficient capacity at a delivery point, they may pay for the capacity of that delivery point to be expanded. In this case, the IT user takes priority over the expanded part of the delivery point under clause 10.5 of the access arrangement.

The Commission agrees with submissions made by Origin and AGLES&M to the effect that the confirmation procedures in clause 18.4 of the access arrangement are currently burdensome and excessive to users. It is reasonable that FT users be required to provide written confirmation to the service provider.

However, the Commission considers that the consequences of failure to provide written confirmation contained in clause 18.4(e) are excessively onerous and requires the consequences to be reduced as follows. If a user fails to provide written confirmation by 1730 hours on a day, that user may still obtain capacity the following day if later confirmation is provided. In this circumstance, the FT user would no longer take priority over IT users or users of non-specified services. Additionally, capacity provided on this basis would be provided on an interruptible basis. Accordingly, the Commission requires Epic to comply with amendment FDA3.14.

Epic indicated that it would be concerned if Commission required amendment FDA3.14 because Epic would experience difficulty in recovering costs such as fuel gas.[364] The Commission does not agree with Epic's arguments for two reasons. First, Epic does not pay for system use gas; users do. Second, Epic is able to carry forward system use gas discrepancies. This means that if, on a day, Epic expends additional system use gas in making a late delivery, the system use gas can be recovered the following day.

[364] Epic letter 24 August 2001, p. 13.

Amendment FDA3.14

For the access arrangement to be approved, the Commission requires Epic to amend clause 18 of the access arrangement by removing clause 18.4(e) and replacing it with a new provision detailing the procedures to be followed when written confirmation is not received. These procedures must include:

- provision for FT Users to confirm by telephone, facsimile, e-mail or in writing at a time later than 1730 hours;
- provision for Epic to accept such requests if it is reasonable and prudent to do so;
- provision that FT Service for which confirmation is given after 1730 hours be given a priority below FT Service, IT Service and Non-specified Services on the day; and
- provision for such Service to be provided on an interruptible basis.

In relation to AGLES&M's submission that clause 18.5(f) provides users with the incentive to over nominate, the Commission considers that if the suggestion by Potential Energy were adopted, and earlier IT nominations were given priority, this might also encourage gaming. At this point in time, the Commission considers that the allocation process in clause 18.5(f) is satisfactory.

In relation to Origin's submission that FT users should have the right to request 'Authorised Variations' not exceeding 20 per cent of their MDQ, the Commission considers that in its amended form, the access arrangement strikes a reasonable balance between the interests of FT users and IT users. The Commission acknowledges that FT users pay a capacity charge to reserve pipeline capacity. However, the Commission takes the view that FT users are sufficiently compensated for this in the access arrangement. For example, FT users are able under clause 18.3 to nominate in excess of their primary capacity quantities at a delivery point, and may obtain capacity up to the net available capacity of a delivery point even at delivery points where they have not reserved any PCQ. The Commission considers that to allow FT users to also request authorised variations would confer excessive benefits on FT service. For quantities exceeding their MDQ, FT users may nominate for IT service.

In relation to clause 18.7(c), the Commission considers that while this provision may give FT users some capability to engage in gaming, it is necessary that FT users have some flexibility to vary their final nominated receipt quantities.

In its letter of 29 August 2001 Epic proposed that the potential of users to engage in gaming could be addressed by deleting clause 18.7(c) and amending clause 18.7(d) as follows:

> The Service Provider will not authorise a variation in the Final Nominated Receipt Quantity for a Day if, to do so, would adversely affect the quantities of gas already scheduled for receipt from and delivery to Other Users on that Day if, to do so, would adversely affect the quantities of Gas already scheduled for receipt and delivery to Other Users on that Day.

The Commission requires Epic not to make this amendment, nor to remove clause 18.7(c) from the access arrangement. The Commission considers that to remove clause 18.7(c) from the access arrangement would cause significant detriment to the conditions on which FT service was offered.

In relation to AGLES&M's submission that 18.7(b) may encourage initial over-nomination by holders of firm capacity to the detriment of IT users, the Commission acknowledges that clause 18.7(b) does allow some scope for such behaviour. However, the Commission takes the view that the flexibility provided by clause 18.7 confers benefits on both FT and IT users.

In relation to Origin's submission that the words 'adversely affect' in clause 18.7(d) are ambiguous and without practical meaning, and give Epic an absolute discretion as to whether it accepts variations, the Commission considers that it is reasonable for Epic to exercise some discretion in variations to final nominated receipt quantity. The Commission takes the view that the amendment to clause 18.7(d) suggested by Origin would be onerous to Epic, as it would require Epic to allow requests to vary service that were received by Epic at any time.

In relation to Origin's submission that the confirmation referred to in clause 18.7(e)(ii) is unnecessary, the Commission takes the view that written confirmation of requests to vary service is reasonable, given that written confirmation is required when a user makes an initial request for service.

In relation to Origin's submission that under clause 18.7(g), the user must pay the FT commodity charge rate and the IT commodity charge rate, the Commission considers that this provision is reasonable. Clause 18.3(f) of the access arrangement clearly states that FT users may not exceed their MDQ; accordingly, the consequences of clause 18.7(g) are appropriate.

In its *Draft Decision*, the Commission required Epic to amend clause 18 as foreshadowed in Epic's revised lodgement of 2 March 2000. In its response to the Commission's *Draft Decision*, Epic indicated that its access arrangement reflects the proposed amendment. Epic has subsequently made further changes to clauses 18.2(a) and 18.5(b). The effect of the former amendment is to remove the more lenient confirmation procedures that previously applied to FT service prior to 2006. The latter amendment effects the same change for IT service. The Commission takes the view that these amendments are acceptable, as it is reasonable that the same regime should apply to confirmation procedures both before and after 2006.

Clause 19 Imbalance and zone variation

OEP submitted in relation to clause 19 that the requirement for an eight per cent maximum imbalance appears to affect payments rather than security of supply.[365] OEP further submitted that the clause may cause disputes, and that if these disputes were to affect supply, the charge may need to be reviewed. OEP also raised the issue of whether any revenues from the imbalance charge have been included in operational income.

[365] OEP submission 31 October 2000, p. 13.

Osborne submitted that the excess imbalance charge is excessive and too restrictive. Osborne considered that there should be a wider tolerance, and users should be able to make reasonable corrections on subsequent days.[366] Osborne noted that all current users of the pipeline system operate aggregated gas supply portfolios.[367] However, future projects such as independent gas power generators would encounter more difficulty with the proposed arrangements than would a gas aggregator.[368]

Origin made the following points in relation to clause 19:

- users should incur an imbalance charge only if their imbalance is greater that 15 per cent of MDQ on more than two consecutive days;
- Epic should be able to require users to curtail deliveries of gas only where:

> Epic, reasonably and prudently, forms the opinion that a user's imbalance will:
>
> (a) materially impede the ongoing efficient and reliable operation of the pipeline system; or
>
> (b) prevent Epic fulfilling its obligations to other users.

- in these circumstances, Epic should be able to require users to curtail deliveries of gas to receipt/delivery points to the extent necessary to correct the imbalance so that it no longer has the effects described in (a) and (b) above;
- in relation to clause 19.4 of the access arrangement, Epic's right to correct the imbalance should be restricted to critical situations. That is if it is necessary to:

> (a) preserve the operational integrity of the pipeline system; or
>
> (b) prevent Epic from defaulting on its contractual requirements to other users.[369]

- Epic should only be entitled to take the actions referred to in clause 19.4 to the extent necessary to ensure that any imbalance does not have the consequences referred to in (a) and (b);[370] and
- clause 19.4 should be amended to provide that Epic should be liable for any loss suffered pursuant to Epic's actions under clause 19.4, if that loss results from Epic's negligence.[371] Origin submitted that clause 19.4 as amended should read:

> The Service Provider will not be liable for any losses, costs, damages or expenses that the User may suffer or incur as a result of curtailment, suspension, cessation or confiscation under this clause 19.4, except to the extent those losses, costs, damages or expenses are caused by the Service Provider's unnecessary actions or negligence.[372]

Origin submitted in relation to clause 19.5 that:

- the words 'third party' should be replaced with 'user';
- the indemnity should not extend to losses incurred due to Epic's negligence; and

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[366] Osborne submission 7 October 1999, p. 3.
[367] Osborne submission 7 October 1999, p. 3.
[368] Osborne submission 7 October 1999, p. 3.
[369] Origin submission 21 September 2000, p. 30 at 17.3.
[370] Origin submission 21 September 2000, p. 30 at 17.3.2.
[371] Origin submission 21 September 2000, p. 31 at 17.4.1.
[372] Origin submission 21 September 2000, p. 31 at 17.4.2.

- the indemnity should not extend to losses which would not have been incurred by Epic had it used reasonable endeavours to mitigate its loss.

Origin also submitted that:

- Epic should not be indemnified where it has purported to take action pursuant to clause 19.4 in circumstances where clause 19.4 does not permit Epic to take such action;[373]
- in some circumstances, an imbalance may be caused by Epic's action rather than by those of users. Accordingly, clause 19 should provide that the excess imbalance charge and the indemnity do not apply unless Epic can prove that a user's imbalance is not caused by Epic's actions;[374]
- the onus should be on Epic to prove that it was not the cause of an imbalance, since Epic has access to all relevant information concerning the operation of the pipeline system;
- unless additional imbalance tolerance is provided, the access arrangement should include a park and loan reference tariff. If clause 19 remains in its present form, users will only be able to acquire sufficient flexibility to meet customer demand if they are able to enter a park and loan service with Epic; and
- if a park and loan reference service is not offered in the access arrangement, Epic would be able to extract monopoly rents on such a service.[375]

In relation to clause 19.7, Origin submitted that:

- there should only be one zone covering the Iron Triangle, the Barossa and Adelaide.[376] Virtually all of the delivery points are located in the last quarter of the pipeline system, and after the last compressor;
- charging for variations by zone reduces aggregation efficiencies;
- the zone variation charge should be replaced by a variation charge that applies where the aggregate of deliveries to a user varies by more than 10 per cent from the scheduled delivered quantities of that user. This proposal would preserve the operational integrity of the pipeline system by controlling the total amount of gas taken out of the bottom of the pipeline system;
- the variation charge should not apply to the extent that a variation is caused by an act or omission of Epic;
- zone variation charges should be pro rated across users as partial compensation for the system use gas they are required to provide; and
- when a zone variation occurs, Epic will need more system use gas to fuel additional compressor requirements. Accordingly, it is users rather than Epic who bear the cost of any zone variation.[377]

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[373] Origin submission 21 September 2000, p. 32 at 17.4.3.
[374] Origin submission 21 September 2000, p. 32 at 17.5.3.
[375] Origin submission 21 September 2000, p.33
[376] Origin submission 21 September 2000, p. 34 at 17.7.1.
[377] Origin submission 21 September 2000, p. 34.

In response to Origin's submissions, Epic stated that users must submit to a level of discipline in how they operate under their access contract. This will allow Epic to maximise the capacity of the pipeline and minimise system use gas.

Epic considers that it must be permitted to curtail users who are impacting on the operation of the pipeline system, and threatening Epic's ability to meet its obligations to other users. Epic indicated that it would consider making the curtailment order discretionary rather than mandatory in the event of an imbalance.

In response to Origin's submission that liability and indemnity provisions should be changed to make them more equitable, Epic stated that it would review these provisions of the access arrangement. In addition it would review clause 19 in so far as users would be held responsible and penalised for imbalance caused by Epic or other users. Epic has not made these changes, and accordingly the Commission has required several amendments in relation to this issue. However Epic does not agree that a park and loan service should be a reference service.

In response to Origin's submission that there should be one zone covering the iron Triangle, the Barossa and Adelaide, Epic commented in relation to this matter that zone variation charges are intended to minimise the opportunity for gaming, which might inhibit third party access.

In relation to Origin's submission that variations by Epic should not be charged to a user, Epic submitted that it will amend the access arrangement such that Epic will not charge for variations caused by Epic breaching its access contract with the user.

In relation to Origin's submission that variation and imbalance charges should not be paid to Epic, Epic submitted that the charges are for disciplinary rather than revenue purposes. However, Epic indicated that it was prepared to review the rebate mechanism in the access arrangement.[378] Epic did not amend the penalty regime.

Commission's considerations

The Commission agrees that users must submit to a level of discipline in how they operate under their access contract. In a multi-user environment, each user must operate according to a set of rules otherwise the actions of one user may interfere with the entitlements of another user. Consequently, the Commission accepts that there should be appropriate mechanisms and incentives to discipline the behaviour of users. However, the Commission is concerned that such mechanisms should not be more onerous than is necessary to achieve the objectives of the regime. In a number of respects the Commission believes that the regime proposed by Epic is more onerous than is necessary to encourage sufficient discipline. The Commission has proposed a number of amendments in order to address this imbalance.

Origin suggested that users should incur an imbalance charge if their imbalance is greater that 15 per cent of MDQ on more than two consecutive days. The Commission considers that an eight per cent definition of excess imbalance on any day is reasonable. The Commission considers that this is consistent with general practice in the industry.

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[378] Epic's response to Origin's submission 31 October 2000, pp. 11-13.

In relation to OEP's submission that the requirement for an eight per cent maximum imbalance appears to affect payments rather than security of supply, the Commission is satisfied for the time being with the present regime whereby imbalance charges are not distributed to the users. However, the Commission will review this mechanism at the next access arrangement period.

OEP queried as to whether revenue from imbalance charges has been included as part of operational income, the Commission accepts Epic's submission that the charges are for disciplinary, not revenue purposes.[379] It is unclear at this stage how much revenue will be raised by these charges. It is possible that, if users comply with their obligations under the access arrangement, no charges will be levied. However, the Commission will reassess this issue at the next access arrangement.

In relation to issues relating to the imbalance charge raised in Osborne's submission, the Commission considers that these concerns can best be addressed through changes to the imbalance trading regime.

In relation to Clause 19.1, Epic has consistently argued in negotiations with Commission staff in respect of the access arrangement that 'best endeavours' is a very high standard that can lead to perverse outcomes. Consequently, Epic has resisted the application of such a standard to itself and has instead suggested that 'reasonable and prudent efforts' is a more appropriate standard. On the basis of the same logic, the Commission is of the view that it is onerous and unreasonable for a 'best endeavours' standard to be applied to users.

In its letter of 24 August 2001, Epic suggested that instead of substituting the term 'reasonable and prudent efforts' for the term 'best endeavours', clause 19.1 could provide:

> On each day, the User must take those steps that the service provider determines that a prudent User should take to ensure that there is neither an Imbalance or a Zone variation.

The Commission does not think it appropriate that users should be held to a standard that is subjectively determined by the service provider. The Commission considers that the 'reasonable and prudent efforts' standard is appropriate for both users and the service provider.

Accordingly, the Commission requires Epic to comply with amendment FDA3.15.

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379 Epic submission 31 October 2000, p. 13.

Amendment FDA3.15

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.1 by deleting the term 'best endeavours' and substituting the term 'reasonable and prudent efforts'.

The Commission is concerned at timing issues that arise under clauses 19.2 and 19.3. Under clause 19.2, the service provider will notify a user of any imbalance on the previous day by 0900 hours each day. Once users have been made aware of any imbalance they must then correct it as soon as possible under clause 19.2(b). However, it appears that under clause 19.3, a user is liable to pay an imbalance charge for the day on which the imbalance occurs. It appears that a charge will be incurred on the second day before the user has an opportunity to correct; the Commission is concerned that this would be too harsh. The Commission considers that it is reasonable that a user should incur the imbalance charge from the second day onwards, after having been notified of the imbalance by the service provider.

Epic submitted in relation to this matter that the imbalance provisions proposed in clause 19 give users a free park and loan service for up to eight per cent of the pipeline capacity, and that the pipeline has been configured accordingly. Epic argued that the access arrangement should not be amended to give users an unlimited park and loan service.[380]

Epic also indicated that the access arrangement at present allows the service provider to levy an imbalance charge only every second day. Epic plans to amend the access arrangement to provide that the excess imbalance charge will be levied on the cumulative excess imbalance for any day.[381]

The Commission considers that clause 19.3(a) currently allows the service provider to levy the excess imbalance charge for each day that an imbalance exists. Accordingly, the Commission considers that Epic's proposed change is unnecessary. However, the Commission does not object to Epic amending the access arrangement to provide that the excess imbalance charge will be levied on the cumulative excess imbalance for any day.

In its letter of 29 August 2001 Epic indicated that it proposed to amend the access arrangement to provide that if the service provider does not notify the user of an imbalance by 0900 hours on any day, then the service provider can not levy the charge for that day.[382] The Commission considers that such a provision would be reasonable and requires Epic to amend the access arrangement accordingly.

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[380] Epic letter 29 August 2001, p. 4.
[381] Epic letter 29 August 2001, p. 5.
[382] Epic letter 29 August 2001, p. 5.

Amendment FDA3.16

For the access arrangement to be approved, the Commission requires Epic to amend the access arrangement to provide that if the Service Provider does not notify the User of an Imbalance by 0900 hours on any day, then the service provider may not levy the Excess Imbalance Charge for that day.

In relation to clause 19.4, the Commission takes the view that a user must rectify all imbalances, as it is important that a user be limited to their MDQ. Accordingly, it is reasonable that Epic possess the power to issue a curtailment order. Epic indicated that it would consider making the curtailment order discretionary rather than mandatory in the event of an imbalance.[383] Epic made this amendment in clause 19.4. but also added the term 'and if it is of such a nature'. This term is unclear and ambiguous. Further, the Commission agrees with Origin's submission that Epic should not have unfettered discretion to issue an Operational Flow Order (OFO) in circumstances where a user is in excess imbalance. Accordingly, the Commission requires Epic to comply with amendment FDA3.17.

Amendment FDA3.17

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.4 by deleting the phrase 'and if it is of such a nature' and replacing it with 'and if the conditions in clause 25.1(a)(i) are met'.

The Commission agrees with Origin's submission that a user should not be held liable for any imbalance caused by Epic. However, the Commission does not consider it reasonable for Epic to be required to prove that it was not the cause of an imbalance. Accordingly, the Commission requires Epic to comply with amendment FDA3.18.

Amendment FDA3.18

For the access arrangement to be approved, the Commission requires Epic to amend clause 19.3(c) to provide that a User will not be held responsible and penalised for any Imbalance to the extent caused by the Service Provider.

The Commission agrees with Origin's submission that clause 19.4 should be amended to provide that Epic should be liable for any loss suffered pursuant to Epic's actions under clause 19.4, if that loss results from Epic's negligence. The Commission believes that the potential for liabilities will impose a discipline on Epic to ensure that it exercises its rights under 19.4 in a manner that is reasonable. This is reflected in amendment FDA3.19.

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[383] Epic's response to Origin's submission 31 October 2000, p. 12 at 17.3.

Amendment FDA3.19

For the access arrangement to be approved, the Commission requires Epic to amend the final sentence of clause 19.4 to read:

> The Service Provider will not be liable for any losses, costs, damages or expenses that the User may suffer or incur as a result of curtailment, suspension, interruption, cessation or confiscation under this clause 19.4 unless, and to the extent which:
>
> (A) those losses, costs, damages or expenses resulted from measures taken by the Service Provider under clause 19.4 to correct an imbalance caused by the Service Provider; or
>
> (B) those losses, costs, damages or expenses resulted from the negligence of the Service Provider; or
>
> (C) those losses resulted from the Service Provider's failure to comply with its obligations under the Agreement.

The Commission does not accept Origin's submission in relation to clause 19.5 that the words 'third party' should be replaced with 'user'. The Commission considers that it is reasonable for users to be held liable to Epic for losses incurred by third parties that result from a user's actions.

The Commission accepts Origin's submission that the indemnity should not extend to losses incurred due to Epic's negligence or due to Epic's failure to comply with its obligations under the access arrangement. Accordingly, the Commission requires Epic to comply with amendment FDA3.20.

Amendment FDA3.20

For the access arrangement to be approved, the Commission requires that Epic amend clause 19.5 such that the User does not indemnify the Service Provider in respect of losses, costs, damages or expenses incurred due to Epic's negligence or by Epic's default in complying with its obligations under the Agreement.

The Commission does not consider that the indemnity should extend to losses which would not have been incurred by Epic had it used reasonable endeavours to mitigate its loss. The Commission considers that if such losses were caused by a user, it is reasonable that the user should bear the consequences of its actions.

In relation to Origin's submission that a park and loan reference tariff should be included in the access arrangement, the Commission takes the view that at this stage it is unclear that such a Service is likely to be sought by a significant part of the market. Accordingly, the Commission considers that such a Service is unlikely to satisfy the requirements of section 3.2 of the Code.

In relation to Origin's submission that variation and imbalance charges should not be paid to Epic, the Commission considers that variation and imbalance charges are necessary to encourage users to ensure that receipts and deliveries are generally in balance. This encouragement will not exist if charges are simply returned to users. In the absence of a satisfactory alternative proposal, the Commission considers it acceptable that variation and imbalance charges be paid to Epic. However, the Commission will assess Epic's actions at the next review to determine whether the variation and imbalance charges are being used by Epic for revenue raising purposes.

In relation to Origin's submission that there should only be one zone covering the Iron Triangle, the Barossa and Adelaide, the Commission considers that this is a matter to be resolved by negotiation between the service provider and users.

In relation to Origin's submission that variations caused by Epic should not be charged to a user, Epic submitted that it will amend the access arrangement such that Epic will not charge for variations caused by Epic breaching its access contract with the user.[384] Epic has not made the amendment. Accordingly, the Commission requires Epic to comply with amendment FDA3.21.

Amendment FDA3.21

For the access arrangement to be approved, the Commission requires Epic to amend clause 19.7 of the access arrangement such that Epic will not charge for variations caused by Epic breaching its access contract with the User.

Clause 20 Imbalance trading

Origin submitted that if FT users' nomination times move to later in the day, the time at which imbalance Trades may be made under clause 20.1(a) should move as well from 1030 hours to 1500 hours.[385]

Origin agrees with the *Draft Decision*'s proposed amendment A3.17,[386] which provided:

> For the access arrangement to be approved, clause 20.2(b) must be amended so that it is clear that the charge applies to the outstanding excess imbalance, i.e., to that imbalance outstanding after any and all exchanges or trades have been made.

Osborne submitted that intra-day trading should be permitted among users.[387] Osborne submitted that this would cause no material impact on the service provider.[388]

Epic indicated that it will amend its access arrangement to reflect the proposed amendment A3.17.[389] Epic has made this change.

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384 Epic's response to Origin's submissions, p. 13.
385 Origin submission 21 September 2000, p. 24 at 16.1.5.
386 Origin submission 21 September 2000, p. 35 at 18.1.
387 Osborne submission 7 October 1999, p. 3.
388 Osborne submission 7 October 1999, p. 3.

Commission's considerations

Imbalance trading must be notified by the user to the service provider by 1030 hours on the day prior to the exchange. In the Commission's view, such a notification period will diminish the suitability of imbalance trading for clearing excess imbalance. For example, if an excess imbalance arises on day one, the service provider must notify the user by 0900 hours on day two (19.2 (a)). The user must have arranged an imbalance trade by 1030 hours and have notified the service provider. The imbalance trade will then take place on day three. Under this timing the user would incur an excess imbalance charge for day one and day two before the imbalance is traded on day three.

The Commission accepts Origin's submission if FT users' nomination times move back, the time at which imbalance trades may be made under clause 20.1(a) should move back as well. As discussed in relation to clause 18, the issue of nomination times is related to the issue of whether FT and IT nominations could be made simultaneously. Since the Commission has decided not to change FT nomination times, it is not appropriate to change the time by which imbalance trades must be made.

In relation to the issue of intra-day imbalance trading, the Commission considers that the amendments to clause 19 in relation to the imbalance charge will address users' concerns in this regard.

Clause 21 Allocation of receipt point quantities

Origin submitted that the quantity of gas measured as having been supplied at the Receipt Point should be the same as the sum of the Confirmed Quantities.[390] Origin submitted that these quantities would only differ if the Producers and Epic were using different measuring procedures at the same point.[391]

In response, Epic submitted that clause 21 represents a default procedure, which will apply unless all users and the supplier of gas at the Receipt Point agree to another procedure.[392] Epic indicated that if all users supply Epic with the agreed procedure, Epic would allocate in accordance with that procedure.[393]

Commission's considerations

The Commission considers that the quantity of gas measured as having been supplied at the Receipt Point will equal the sum of the Confirmed Quantities at that Receipt Point unless either there is an error of measurement, or the Producers and Epic are using different measuring procedures. Although either of these situations might be unlikely to arise, it is reasonable to include clause 21 in the access arrangement in case such a situation does arise.

In its *Draft Decision*, the Commission required Epic to amend clause 21 in accordance with its proposed lodgement of 2 March 2000. Epic has made this amendment. Clause

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[389] Epic submission 10 October 2000 Part A, p. 23 at A3.17.
[390] Origin submission 21 September 2000, p. 35.
[391] Origin submission 21 September 2000, p. 35.
[392] Epic's response to Origin's submission 31 October 2000, p. 13 at 19.1.
[393] Epic's response to Origin's submission 31 October 2000, p. 13 at 19.1.

21 as amended provides that users and producers can agree to different allocation procedures at receipt points.

Clause 22 Allocation of delivery point quantities

Origin submits that allocation at delivery points should not be based on meter readings downstream of a delivery point, because:

- many downstream meters are incompatible with daily measurement;
- downstream meters do not and should not conform with Schedule 8; and
- unaccounted for gas in downstream systems must be considered in the allocation of flows and is not determined daily.[394]

Origin also submitted that users should not be obliged to provide Epic with customers' metering data, as such data is confidential.[395]

Origin submits that users should advise Epic as to the allocation procedure at a particular Delivery point.[396] Origin argues that any allocation procedure that allocates 100 per cent of gas to users should be acceptable to Epic. However, any dispute as to apportionment procedure should be referred to an independent expert, rather than being settled unilaterally by Epic.[397] It suggests that Epic would not resolve such a dispute impartially, instead it would impose whichever apportionment procedure best suits its commercial interest.[398]

Origin acknowledges concerns raised by the Commission in its *Draft Decision* that existing users could frustrate a new user's access to the pipeline system by refusing to agree to an apportionment procedure.[399] Origin submits that such conduct would constitute hindering or preventing access under s.13 of the GPAL.[400]

In relation to the issue of whether there would be (real time) unmetered facilities in distribution systems, the OEP states that this issue is currently being addressed by the Technical Regulator's distribution licence conditions in the requirement for a Network Consumer Code.[401] It will be a requirement of this Code to have in place an agreed apportionment and balancing system for all gas entering a distribution system (from a transmission system such as Epic's).[402]

Origin expressed concern that the procedure for allocation of quantities at Delivery points is unworkable. Epic acknowledges Origin's concerns, and stated that it is considering introducing an alternative allocation procedure under which parties taking delivery of gas at a Delivery point agree to the allocation procedure.[403] Epic indicated

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394 Origin submission 21 September 2000, p. 35 at 20.1.1.
395 Origin submission 21 September 2000, p. 35 at 20.2.
396 Origin submission 21 September 2000, p. 35 at 20.3, 20.3.1.
397 Origin submission 21 September 2000, p. 36.
398 Origin submission 21 September 2000, p. 36 at 20.4, 20.4.2.
399 Origin submission 21 September 2000, p. 36 at 20.4, 20.4.1.
400 Origin submission 21 September 2000, p. 36 at 20.4, 20.4.1.
401 OEP submission 31 October 2000, p. 13.
402 OEP submission 31 October 2000, p. 13.
403 Epic's response to Origin's submission 31 October 2000, p. 13 at 20.1.

that in the absence of such agreement, it would allocate deliveries to the parties at the Delivery point pro rata based on their respective nominations at the Delivery point.[404]

In relation to Origin's submission that users should not be obliged to provide Epic with customers' metering data, Epic submits that if a user has multiple customers, that user will aggregate metering information unless it wishes it to be incorporated in the allocation procedure.[405]

Commission's considerations

The Commission agrees with Origin's submission that any allocation procedure agreed to by users that allocates 100 per cent of gas to users should be acceptable to Epic. The Commission accepts the allocation procedures outlined in Epic's response to Origin's Submission at 20.1, which is included in amendment FDA3.22.

Amendment FDA3.22

For the access arrangement to be approved, the Commission requires Epic to insert a provision to provide for an alternative allocation procedure where parties taking delivery of gas at a Delivery Point agree to the allocation procedure. The parties will provide the service provider with a copy of the agreement. If an agreement is not reached, Epic is to allocate deliveries to the parties at the Delivery Point pro rata, based on their respective nominations at the Delivery Point.

Epic indicated its support for this amendment, provided that it is given a copy of any such agreement.[406]

Origin expressed concern regarding the disclosure of customers' confidential metering information to Epic. The Commission considers that under amendment FDA3.22, users may agree on an allocation method that does not involve the disclosure of such metering information.

Origin has suggested that disputes between users as to allocation procedures should be resolved by an independent expert. The Commission is concerned that such a process might be costly and time consuming. The Commission considers that if users can not agree on an allocation procedure, it is reasonable for Epic to impose one.

In relation to OEP's submission, the Commission notes that the advent of the Network Consumer Code might render obsolete the clauses in the access arrangement dealing with allocation at unmetered Delivery points. Until such a development eventuates, it is necessary that these clauses remain in the access arrangement. The Commission considers that these clauses are acceptable.

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[404] Epic's response to Origin's submission 31 October 2000, p. 13 at 20.1.
[405] Epic's response to Origin's submission 31 October 2000, p. 14 at 20.2.
[406] Epic letter 24 August 2001, p. 18.

In its *Draft Decision*, the Commission required Epic to amend clause 22.3(a) by inserting the words 'if any' after the words 'Metered Facilities' in the parentheses. Epic has complied with the Commission's proposed amendment.

Clause 23 Priority of Service

Origin submits that where Epic reduces a user's nomination under clause 23, Epic should be obliged, on request, to provide to that user all details reasonably required for the user to establish that it was necessary for the user's nomination to be reduced.[407]

The Commission agrees with Origin's submission. The Commission takes the view that users may incur loss on a day if they are unable to obtain their nominated quantity. Accordingly, the Commission requires Epic to comply with amendment FDA3.23.

Amendment FDA3.23

For the access arrangement to be approved, the Commission requires Epic to insert a provision into the access arrangement requiring that where the Service Provider reduces a User's nomination under clause 23, the Service Provider must provide, on a reasonable request by a User, such information as is reasonably required to justify Epic's calculation of the reduction.

Clause 23.2 provides that Epic will notify a user in writing if it intends, in the case of a Non-Specified Service, to vary the priority and sequence in clause 23.1. The Commission considers that if Epic intends to allow a Non-Specified Service to rank above IT services, Epic should notify all users. Accordingly, the Commission requires Epic to comply with amendment FDA3.24.

Amendment FDA3.24

For the access arrangement to be approved, the Commission requires Epic to replace the words 'the User' in clause 23.2(a) with the words 'all Users'.

Clause 24 Curtailment and Interruption
Clause 25 Operational Flow Orders

Origin raised a number of concerns in regard to the curtailment and OFO provisions.[408] In particular:

- Clause 24 provides Epic with too much discretion. Curtailment notices and OFOs should only be issued as a last resort and only when and for as long as necessary to protect the integrity of the pipeline system. Further, curtailment notices should be reasonable and capable of being complied with.

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[407] Origin submission 21 September 2000, p. 36 at 21.1.1.
[408] Origin submission, 21 September 2000, p 36 – 39.

- Epic should have an obligation to notify Energy SA if it intends to materially curtail supplies of gas to users under FT Service or an existing transportation agreement, so that Energy SA can assess whether orders under the Gas Act should be made.
- Epic should provide information outlining the cause of any curtailments and demonstrating that it did not curtail supplies of gas to a greater extent than was necessary as long as the request is reasonable. This is to enable a user to assess whether Epic is properly exercising its discretion.
- There are circumstances where one hour is not enough time for users to comply with a curtailment notice. For example, where a user has a large number of customers it would not be possible for it to notify all of them that they must cease taking delivery of gas. There are also customers who can not stop taking gas immediately without substantial damage. Therefore, the access arrangement should provide that users must use reasonable endeavours to comply with a notice.
- Default charges should not be retained by Epic because they would have an incentive to use clauses 24 and 25 to raise revenue. Default charges should be divided between non-defaulting users.
- The indemnity in clause 25.6 should be limited. Users should not have to indemnify the service provider for loss suffered due to the acts or omissions of the service provider. Additionally, users should not have to indemnify for loss of profits, as the service provider does not have to pay loss of profits to users under the access arrangement. Finally, users should not be responsible for costs suffered by the service provider association with the user complying with an OFO, as service provider issues the OFO.

In response, Epic made the following comments:[409]

- Curtailment notices will be used in limited circumstances as a last resort. Epic submits that it requires wide discretion to curtail users, but indicated that it would, however, review clause 25 to give users comfort that Epic would exercise it ability to issue curtailment notices reasonably.
- It would consider requests for information regarding curtailments which are reasonable.
- The purpose of default charges is not revenue raising. Rather, default charges are intended to act as a disincentive to enforce behaviour.

Commission's considerations

In proposed amendment A3.20 of the *Draft Decision*, the Commission required Epic to adopt the revisions to clauses 24 and 25 that were set out in Epic's access arrangement of 2 March 2000. These revisions involved the method of providing notice of curtailments and OFOs and have been adopted by Epic.

Proposed amendment A3.20 also required Epic to amend clause 41.1(c) to the effect that if the EBB was inoperative, than each notice that is given must be given by telephone and in writing rather than just one of the two. In the revised access arrangement of 29 June 2001, clause 41.1(c) specifies that such notices must be provided in writing. However, clause 41.1(a) provides that notices may be

[409] Epic's response to Origin's submission, 31 October 2001, p 14 – 15.

communicated by other means, which would allow the service provider to give notices over the telephone. The Commission considers that this is sufficient to satisfy the Commission's concerns and no further amendment is necessary.

In the *Draft Decision* the Commission indicated that the one hour time period for users to comply with a curtailment notice issued under clause 24.1 was of particular concern. However, the Commission decided to approve this provision as the pipeline is operating at full capacity and Epic had agreed to revise the provisions relating to the method of giving curtailment notices.

In the revised access arrangement the service provider is able to specify less than one hour for users to comply with a curtailment notice issued under clause 24.1. The Commission considers that this is unreasonable given the difficulties users indicated they would have in complying with a one hour time period. The Commission also believes that it is unnecessary because clause 24.5 allows the service provider to curtail services immediately in emergencies. Consequently, the Commission requires that Epic amend this clause in accordance with Amendment FDA3.25.

The Commission considers that clauses 24.5 and 25, by providing the circumstances in which curtailment and OFO orders can be made, sufficiently constrain the service provider's discretion. For example, users can only be curtailed under clause 24.5 in circumstances that present a threat to life, health or property of any person and the integrity of the pipeline system or to meet the requirements of a the license, Government agency or any law. Under clause 25.1 Epic can only issue an OFO where a user is in breach of its obligations and that breach could affect the provision of services to another user. It is also relevant that if there is a dispute regarding the issue of an OFO or curtailment notice it can be resolved by an independent expert under clause 37.

Clause 24.1, however, conveys a very wide discretion on Epic. Under that clause the service provider may curtail services on any day where capacity is insufficient to meet scheduled quantities for any reason. IT and FT services are both subject to curtailment and Epic is not obligated to indemnify users for loss suffered due to curtailments unless it is negligent or breaches its obligations under the agreement. Further, any indemnity that is owed is limited to direct losses by clause 35. Therefore there appears to be very little limitation on the service provider's ability to curtail services.

The Commission considers that this it is unreasonable for the service provider to have such a substantial degree of discretion. Epic has agreed to amend clause 24.6 so that Epic must indemnify users for direct losses if it curtails users under clause 24.1. In conjunction with FDA3.1, the Commission considers that this is an appropriate compromise as it allows Epic to retain the discretion to curtail if necessary but also provides a financial disincentive for doing so, which should prevent Epic from curtailing unnecessarily. This is reflected in amendment FDA 3.25.

The Commission considers that it would be unreasonable for the service provider to curtail users without providing information regarding the cause of the curtailment. This is particularly the case given that the issue of curtailment notices and OFOs can be arbitrated under clause 37. It is necessary for users to have the relevant information so that they can assess whether they should notify a dispute under clause 37. The access

arrangement should be amended to provide that the service provider must provide information reasonably requested as to the cause of curtailments. This is reflected in amendment FDA 3.25.

The Commission believes that there is some merit in Origin's suggestion that default charges should be allocated to non-defaulting members given that Epic has justified default charges on the basis that its purpose is to provide a deterrent to users. However, given that curtailments and OFOs are new provisions it is difficult to anticipate how they will operate. Therefore, the Commission approves the provision in its current form, but will review it at the time of the scheduled review of the access arrangement when it will be in a better position to determine the magnitude of the default charges.

The Commission is of the view that any obligation to notify Energy SA of gas shortfalls is a matter most appropriately dealt with by that regulator and any relevant legislation rather than this access arrangement.

The Commission notes that clause 25.6 specifies that the service provider will not be indemnified under that clause as a result of its own negligence or default. The Commission considers that it is reasonable for a user to indemnify the service provider for loss suffered as a result of the user complying with an OFO and for loss of profits as a result of taking action under clause 25. This is because it is only permissible for the service provider to issue an OFO where the user has breached its obligations under the agreement, and therefore if the user does not breach its agreement it will not be liable. It is not necessary to limit the users obligation to indemnity further, as suggested by Origin.

The Commission requires the following amendments to clauses 24.

Amendment FDA3.25

For the access arrangement to be approved, the Commission requires Epic to:

- Amend clause 24.3(a) by deleting after the word 'greater' the words 'or less'.
- Amend clause 24.6 as follows:

  The Service Provider will only be liable for any losses, costs, damages or expenses that the User may suffer or incur as a result of:

  (a) any curtailment, interruption or discontinuation invoked by the Service Provider under clause 24.1;

  (b) the User complying or failing to comply with a curtailment notice invoked by the Service Provider which was issued negligently or in breach of the Service Providers obligations under the Agreement;

  (c) any curtailment, interruption or discontinuation invoked by the Service Provider under clause 24.5 where the Service Provider has been negligent or has failed to comply with its obligations under the Agreement.

- Add to clause 24.2 the following clause:

> The Service Provider will, on reasonable request by a User, provide such information as is reasonably required to justify the issue of a curtailment notice.

Clause 27 Electronic bulletin board

Origin considers that changes to the EBB should only be made with the consent of all current users of the pipeline system because an amendment could result in commercial detriment to a user.[410] It also submits that it is unreasonable for users to pay a fee to inspect data removed from the EBB as the provision of electronic data is inexpensive and general practice is to allow inspection free of charge.[411]

Commission's considerations

In its *Draft Decision*, the Commission required Epic to make an amendment to clause 27.4(d). Clause 27.4(d) has been deleted in the revised access arrangement of 29 June 2001, and as a result proposed amendment A3.21 is no longer relevant.

The Commission considers that it is reasonable for the service provider to have the ability to change the format of its forms. However, the Commission believes that it would be unreasonable for Epic to significantly increase the obligations of users or to significantly reduce its own obligations.

The Commission requires the following amendments to be made with respect to the provision of the EBB.

Amendment FDA3.26

For the access arrangement to be approved, the Commission requires Epic to:

- Add to clause 27.1(b) the following:

  > The Service Provider may amend the format and/or content of any forms from time to time as it considers appropriate as long as the obligations of the Service Provider are not significantly decreased or the obligations of the User are not significantly increased.

Clause 28 Receipt and Delivery Points
Clause 29 Measurement at Receipt and Delivery Points

Origin made the following points in relation to clause 28 and schedule 8:[412]

- Meters should not be treated by Epic as if they were Epic's property. The phrase as 'if it were its property' is ambiguous because it is not clear whether Epic would be liable for any damage it caused or if it could encumber the property. Further, there may be circumstances where it would not be possible for the user to make the

[410] Origin submission 21 September 2000, p. 41.
[411] Origin submission 21 September 2000, p. 41.
[412] Origin submission, 21 September 2000, 41 – 43.

equipment available to the service provider, such as where the equipment is operated by a third party.

- The specifications in schedule 8 should only apply to substantial new receipt and delivery points. Users do not own existing receipt and delivery points and do not have contractual rights to ensure that existing equipment is upgraded and will therefore not be able to comply with clause 28. If the service provider wishes to upgrade existing equipment it should negotiate with the owner of the infrastructure directly.
- Under clause 28 and schedule 8, the service provider has too much discretion to determine the specifications that measuring equipment must meet.

Epic made the following comments in response:[413]

- The access arrangement is forward looking and designed to accommodate multiple users. Clause 28 provides for the future when the service provider controls receipt and delivery points, through ownership or by arrangement, which it submits is necessary for optimal service to all parties where there are multiple users. Clauses 28.1 and 28.2 do not effect existing agreements.
- The integrity of the pipeline system is dependent on the accuracy of measurement and the ability of the service provider to control the operation of the system and therefore the schedule 8 requirements are reasonable.
- It is appropriate for the service provider to require a level of metering that enables it to determine each shippers daily imbalance. Epic is reluctant to introduce inferior metering standards on the basis of size of a delivery point as it is attempting to standardise all delivery point standards.[414]

Commission's considerations

Epic's original access arrangement proposed that all users would be required to comply with minimum equipment requirements for measuring gas quantity and quality at delivery points. In the *Draft Decision*, proposed amendment A3.22 required Epic to amend clauses 28 and 29 and schedules 8 and 9 to establish threshold values at which such equipment would be required.

Epic indicated that it would relax its requirement for on-line chromatography. The Commission notes that 28.2(g) of the 29 June 2001 access arrangement provides that gas quality can be inferred by gas chromatograph at delivery points which have a throughput of less than 1 TJ. This is sufficient to satisfy concerns raised in submissions and the Commission's concern that such requirements might have imposed an unnecessary barrier to entry for small users.

In respect of metering equipment and schedules 8 and 9, the Commission considers that Epic's assertion that the integrity of the pipeline system is dependent on the accuracy of measurement and the ability of the service provider to control the operation of the system is reasonable. It is also reasonable for the service provider to require a level of metering that enables it to determine each shippers daily imbalance. As such, the

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413 Epic's response to Origin's submission, 31 October 2000, p. 17.
414 Epic submission, 10 October 2000, p 25.

Commission considers that amendments made by Epic are sufficient to address the concerns raised in submissions and the *Draft Decision*.

The Commission accepts that it is reasonable for the service provider to require access to receipt and delivery points given that this can affect the service Epic is able to provide other users and the operation and integrity of the pipeline and there are multiple users on the pipeline. Further, given that clause 28 does not apply to existing agreements existing users are not affected.

However, the Commission is concerned by the implications of the words 'as if it were its own property'. As indicated by Origin, the service provider might not be liable for damage caused. Accordingly, the Commission requires that these words be deleted from the access arrangement, which is reflected in amendment FDA3.27.

Amendment FDA3.27

For the access arrangement to be approved, the Commission requires that Epic delete from clause 28.1(a)(i) and 28.2(a)(i) the words 'as if it were its property'.

Clause 32 Payment

Commission's considerations

In the *Draft Decision*, proposed amendment A3.23 required that clause 32.1 allow ten business days for payment of an invoice rather than seven as originally proposed. Epic's access arrangement of 29 June 2001 allows nine business days to pay an invoice. The only market participant to comment on this clause, Origin, indicated that nine days was acceptable.[415] Accordingly, the Commission accepts that the revision made by Epic is sufficient to overcome concerns raised and no further amendment is required.

Clause 34 Force Majeure

Origin submits that a party should not have to act in an unreasonable manner to avoid force majeure events and therefore clause 34.1 should refer to events beyond the reasonable control of a party rather than beyond the control of a party.[416] Origin argues further that the matters excluded from the definition of force majeure events in clause 34.2(b) should be deleted because it is not logical or fair for a party to be liable for any events that it can not reasonably control.[417]

Commission's considerations

Proposed amendment A3.24 of the *Draft Decision* required that Epic amend clause 34.4(b) in accordance with the proposal in its lodgement of 2 March 2000. This change specified that a users obligation to pay money owing is reduced / suspended only to the extent that Epic is unable to provide the service due to a force majeure event. This amendment has been made.

[415] Origin submission 11 July 2001, p. 9.
[416] Origin submission 21 September 2000, p. 43.
[417] Origin submission 21 September 2000, p. 44.

The Commission agrees with Origin that it would be unreasonable to require a party to be responsible for events that were beyond its reasonable control. Further, reasonable control is the standard used in most other access arrangements, including those for the Central West pipeline, the Moomba to Sydney pipeline, the Amadeus Basin to Darwin pipeline and the Ballera to Wallumbilla pipeline (which is also owned by Epic). As such, the Commission requires that the access arrangement is amended in accordance with amendment FDA 3.28.

The Commission considers that it is reasonable for the access arrangement to specify events that do not constitute force majeure events. Given the substantial consequences of force majeure provisions, it is appropriate to limit the circumstances in which these provisions apply. Further, limitations on force majeure events are present in commercially negotiated contracts.

Amendment FDA3.28

For the access arrangement to be approved, the Commission requires that Epic must:

- Amend clause 34.1(a) as follows:

> For the purposes of this Agreement, 'Force Majeure' means any event or circumstance not within the control of a Party and which, by the exercise of due diligence, that Party is not reasonably able to prevent or overcome including (but not limited to) …

Clause 35 Liability and indemnity

Most market participants, including TGT, NRG Flinders, AGLES&M, Energy SA consider the revised liability and indemnity provisions to be reasonable.[418]

However, Origin submits that liability for fraud and wilful disregard in clause 35.3 should apply only to the service provider. Users' liability for breaches of the agreement, both wilful and otherwise, is already dealt with in other clauses of the access arrangement.[419]

In contrast, Energy SA submitted that the application of this provision to all contracting parties made it 'even-handed'.[420] AGLES&M expressed a similar view.[421]

Further, Origin submits that the various indemnities in the access arrangement from users to Epic should not extend to situations where Epic has been negligent, has not acted as a reasonable pipeline owner or used reasonable endeavours to mitigate its losses.[422] It also states that the user should not have to indemnify the service provider for loss of profits.[423]

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418 TGT submission 2 July 2001, p. 2; NRG Flinders submission 29 June 2001, p. 1; AGLES&M submission, p. 2; Energy SA submission 29 June 2001, p. 4.
419 Origin submission 11 July 2001, p. 11.
420 Energy SA submission 29 June 2001, p. 4.
421 AGLES&M submission 29 June 2001, p. 2.
422 Origin submission 21 September 2000, p. 44.
423 Origin submission 21 September 2000, pp. 44-5.

Commission's considerations

Proposed amendment 3.25 of the access arrangement required that Epic incorporate in clause 35 the revisions proposed in its lodgement of 2 March 2000, subject to changing the word 'lesser' in clause 35.3 to 'greater'. Clause 35 has been substantially revised in Epic's access arrangement of 29 June 2001 and this proposed amendment is no longer relevant.

The Commission is of the view that it is reasonable for both parties to be liable for fraud and wilful disregard. While users may be liable for charges in addition to their liability under clause 35.3, this is not inappropriate given the seriousness of fraud and wilful disregard.

In relation to clause 35, the Commission notes that indemnities and liabilities are limited to direct liabilities and that both parties have reciprocal obligations. As such, the Commission does not consider that it is necessary to limit the liabilities further as submitted by Origin.

The Commission notes that 15.3(d), 19.5 and 25.6 provide very strong indemnities for the service provider by users. These have been discussed above and necessary amendments have been specified.

On balance, the Commission does not require any amendment to clause 35.

Clause 36 Default and Termination

Origin submits that clause 36 gives the service provider greater rights than the user and that this clause should be adjusted so that the rights of all parties are balanced.[424] In particular:

- Users should have an option to suspend as well as terminate an agreement because termination may be an insufficient remedy given that the user would loose its capacity rights.
- An insolvency event and failure to pay money due should be considered an event of default by the service provider as it is by the user.
- Where an event of default is not capable of being remedied but the user compensates the service provider in accordance with the access arrangement, then the event of default should be deemed to be cured so that the service provider can not terminate the agreement.
- Clause 36.1(c) should not apply to amounts unpaid which are the subject of a genuine dispute.

In response, Epic indicated that it was prepared to review this clause.[425] However, it has not been altered in Epic's access arrangement of 29 June 2001.

424 Origin submission 21 September 2000, pp. 45-6.
425 Epic's response to Origin's submission, 31 October 2000, p 19.

Commission's considerations

The Commission considers that clause 36 is unreasonably biased towards the service provider's interest.

The Commission regards the ability to terminate for an event of default to be an insufficient remedy for users because they would loose their capacity rights and need to negotiate a new agreement. Potentially, the service provider could force users into terminating agreements. Also, given that 36.2(a) provides for the service provider to suspend an agreement as well as terminate, a reciprocal provision for users would balance the rights of the parties.

In relation to the other matters raised, the Commission considers that:

- Under clause 36.1(b), an event of default only includes defaults that are capable of being remedied. It is not necessary for clause 36.1(b) to provide for situations where the default can not be remedied as submitted by Origin.
- Under clause 36.4(a) the service provider is in default if it fails to provide services. Accordingly, it is necessary for an insolvency event to be specifically included as a default event in relation to the service provider because clause 36.4(a) would cover that event.
- Under clause 36.1(c) a user is in default if it fails to pay an amount due. Currently, there is no corresponding provision where the service provider owes money to the user. It is appropriate that a reciprocal provision is added to clause 36.4.
- It is reasonable for clause 36.1(c) to apply to amounts due which are the subject of a genuine dispute between the parties. Parties could use such a provision to avoid paying amounts due. Clause 32.4 provides for amounts overpaid to be repaid with interest.

Accordingly, the following amendments are required with respect to clause 36 of the access arrangement.

Amendment FDA3.29

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 36.4 as follows:

  > The User may terminate the agreement and/or suspend its obligations under the agreement if the Service Provider…

- Add, after clause 36(b) the following clause:

  > (c) fails to pay any amount due to the User and that amount, plus interest accrued at the Interest Rate plus 2 per cent per annum, is still outstanding 7 Days after the date of a notice of demand from the Service Provider.

Clause 37 Dispute Resolution and Independent Experts

Origin submits that the definition of 'Technical Matter' should explicitly include a number of additional factors, such as whether Epic has minimised its requirements for system use gas and whether Epic has maximised the capacity of the pipeline system.[426] It also considers that that the parties should not be denied access to appeal to a court if the independent expert makes a decision without a proper basis.[427]

Santos stated that clause 37 should provide a more prescriptive process. Santos argued that clause 37.2 should include more specific requirements to determine whether an expert is suitably qualified and should also require that the expert make a decision within a reasonable time, such as 60 days.[428]

In response to proposed amendment A3.26 contained in the *Draft Decision*, in relation to the service provider being bound to take part in a dispute resolution process, Epic indicated that all parties should be bound to participate in the process rather than just Epic.[429]

In response to suggestions that a reasonable timeframe should be set for the Independent Expert to make a decision, Epic submitted that the independent expert should be able to extend the decision making period unilaterally.[430]

Commission's considerations

Proposed amendment A3.26 of the *Draft Decision* also required Epic to include the grounds on which the service provider has issued a curtailment notice or an OFO in the definition of technical matter. This amendment has been incorporated into Epic's access arrangement of 29 June 2001.

After considering submissions and information noted above, the Commission has formed the view that:

- The definition of 'Technical Matter' in the access arrangement is broad enough to encompass most of the additional matters raised by Origin and therefore it is not necessary to make the alterations sought. Epic is not obligated under the access arrangement to maximise the capacity of the pipeline system, and therefore it is not appropriate to include this in the definition of a technical matter.
- It would be unreasonable for a decision of an independent expert to be final and binding on the parties where it is erroneous.
- In general a more prescriptive process is not necessary for clause 37, however, a requirement that the expert make a decision within a reasonable time should be incorporated. The Commission does not consider that it is necessary to specify a time period for this decision to be made. The requirement that the decision be made in a reasonable time will allow the parties recourse to terminate the process if it is not resolved within a reasonable time. Given that a time period is not specified, the

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426 Origin submission 21 September 2000, p. 46.
427 Origin submission 21 September 2000, p. 45.
428 Santos submission 18 September 2000, p. 3.
429 Epic response to Origin's submission 31 October 2000, p. 19.
430 Epic letter, 24 August 2001, p 22.

Commission considers that it is not necessary for the independent expert to be able to extend the time period.

- It is reasonable for all parties to the dispute to be bound to participate in the process rather than just the service provider as suggested in proposed amendment A3.26, and therefore the Commission requires Epic to amend the access arrangement in accordance with Amendment FDA 3.30.

Accordingly, the Commission requires a number of amendments to be made regarding dispute resolution and independent experts.

Amendment FDA3.30

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 37.2(h) as follows:

  > The Independent Expert will make a determination on the Dispute within a reasonable period and will determine what, if any, adjustments may be necessary between the Parties. The determination of Independent Expert will be final and binding upon the parties.

- Amend the second sentence in clause 37.2(h) as follows:

  > The determination of the Independent Expert will, in the absence of manifest error, be final and binding upon the parties.

- Add, after clause 37.1(d), the following sentence:

  > A party must take part in a dispute resolution process that has been initiated by another Party on reasonable grounds.

Clause 38 Assignment

Origin submits that the ability of the service provider to assign its rights under the agreement should be more limited.[431] In particular, that the service provider should only be able to assign:

- all of its rights and not parts of its rights;
- its rights with the users' consent; and
- its rights to persons who hold a Licence and are solvent and reputable.
- Origin also submits that the service provider should not be able to withhold its consent to an assignment where the proposed assignee is reputable and solvent and has the technical and financial expertise to perform the assigned obligations. Additionally, consent should not be unreasonably withheld or delayed.[432]

[431] Origin submission 21 September 2000, p. 46.
[432] Origin submission 21 September 2000, p. 47.

Commission's considerations

Under clause 38.2 the service provider can not withhold consent to an assignment by the user unreasonably. The Commission considers that this provides sufficient protection for users and therefore the amendment sought is not necessary.

As discussed in the *Draft Decision*, any assignment by Epic would require Ministerial consent. Therefore the Commission does not consider that further limitation on the service providers ability to assign its rights is necessary.

Proposed amendment A3.27 of the *Draft Decision* required Epic to amend clause 38(2)(c) to allow for users to prepare and submit any deed required by the service provide for the user to assign its rights. This amendment has been made.

Clause 39 Confidentiality

Clause 39.1(vi) provides for the service provider to disclose confidential information to an assignee of an agreement. In the *Draft Decision* the Commission indicated that the applicant should further revise clause 39.1(d)(vi) to make it clear that only information relevant to the release of a marketable FT parcel may be disclosed to the acquirer.

In the access arrangement of 29 June 2001 clause 39.1(d)(vi) is limited to information necessary for the purposes of the release. The Commission considers that this is sufficient to overcome the Commission's concerns and accepts this alteration as meeting the requirements of proposed amendment A3.28.

Clause 40 Access to Information

Origin submits that clause 40.1 should be amended to provide that nothing in that clause relieves the service provider of its obligations under Clause 34.3 to provide information in relation to a force majeure event.[433] In addition, clause 40.1 should apply to users as well as the service provider.

Commission's considerations

Although the Commission considers that the interpretation of section 40.1 suggested by Origin would be unlikely, it does consider that this clause should be clarified to avoid ambiguity. It also considers that it is reasonable for reciprocal provisions to apply to users as well as the service provider.

Accordingly, the Commission requires two amendments to clause 40 to this effect.

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[433] Origin submission 21 September 2000, p. 48.

Amendment FDA3.31

For the access arrangement to be approved, the Commission requires that Epic:

- Amend clause 40.1 as follows:

> Subject to this agreement, a Party will have no right to be provided with any information that relates in any way to …

- Amend clause 40 by replacing the words 'User' and 'Service Provider' with the words 'a Party'.

Clause 41 Notices

Origin submits that notices which require a user to take immediate action should be provided by telephone or electronic pager in addition to being placed on the EBB.[434] Further, irregular notices which do not require immediate action should be given in writing.[435]

In its submission in relation to Epics revised access arrangement, Origin noted that its submissions in relation to clause 41 have been satisfactorily addressed.[436] Accordingly, no amendment to clause 41 is necessary.

Clause 43 Definitions and Interpretations

Proposed amendment A3.29 of the *Draft Decision* required clause 43.6 to specify that if there is a conflict between the access arrangement and the schedules, the access arrangement should be given precedence. This amendment has been made.

3.2.4 Conclusion on Terms and Conditions

If all the amendments specified are made then the Commission regards the terms and conditions of the access arrangement to be reasonable and to comply with the Code.

3.3 Capacity management policy

3.3.1 Code requirements

Section 3.7 of the Code requires that an access arrangement include a statement that the covered pipeline is either a contract carriage pipeline or a market carriage pipeline.

3.3.2 Epic's proposal

Clause 3 of the original proposed access arrangement stated that the MAPS is a contract carriage pipeline.

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[434] Origin submission 21 September 2000, p. 48.
[435] Origin submission 21 September 2000, p. 48.
[436] Origin submission 11 July 2001, p. 10.

3.3.3 Submissions by interested parties

Epic submitted that a contract capacity management policy is appropriate for the MAPS because of:

- the geographic location of the market;
- the nature and density of the demand, which is located mostly near Adelaide, at the end of a long pipeline; and
- the pipeline and market is very different to Victoria, where a market carriage system operates.[437]

3.3.4 Commission's considerations

As the access arrangement includes a statement that the MAPS is a contract carriage pipeline, it satisfies the requirements of section 3.7 of the Code.

3.4 Trading policy

3.4.1 Code requirements

If a pipeline is a contract carriage pipeline, sections 3.9 to 3.11 of the Code require the access arrangement to include a trading policy that explains the rights of a user to trade its right to obtain a service to another person. 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; 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.

3.4.2 Epic's proposal

Clause 26 of Epic's proposed access arrangement states that users can trade rights in three circumstances. These are:

- a user may undertake a 'bare transfer' and need not supply the service provider with any information in relation to a bare transfer;
- an FT user may release part of a PCQ on the basis that the service provider will deal with, invoice and accept payment from the acquirer as if the acquirer were the user in respect of that marketable FT parcel; and
- an IT user may release the right to access maximum capacity of an excluded point for the purpose of FT or IT service, on the basis that the service provider will deal

[437] Epic response to submissions 1 February 2000, p. 1 at 1.1.

with, invoice and accept payment from the acquirer as if the acquirer were the user in respect of that marketable IT parcel.

An 'excluded point' is a new delivery or receipt point for IT services to a user, defined in clause 10.5.

With respect to the latter two transfers:

- a user may change the delivery point if there is adequate available capacity at the new point or existing point to undertake the reallocation;
- if the acquirer does not have an applicable contract with the service provider, the user may release a marketable parcel, provided the acquirer satisfies the service provider that it can meet its obligations under the contract, and executes an applicable contract in respect of that; and
- nothing will prevent or restrict the service provider from imposing other conditions on the terms on which a release may be cancelled or terminated, if those conditions are reasonable on commercial and/or technical grounds.

The service provider will post on the EBB a register of marketable parcels notified to it by the user and by other users.

3.4.3 Submissions by interested parties

In relation to clause 26, Origin submitted that clause 26.6(a)(vi) requires a user to notify the service provider why it wishes to transfer capacity from one Delivery point to another. This information is unnecessary and will be commercially confidential to the user (since it will relate to the user's trading strategies). Accordingly, Origin submits that clause 26.6(a)(vi) should be deleted.[438]

Origin agreed with proposed amendment A3.3 of the Draft determination but wished that the following matters be clarified:

- that the user ("surrendering user") who has lost a customer to another user or Prospective user ("acquiring user") has an absolute right to surrender the capacity represented by that customer to Epic;
- that upon the surrender of that capacity, the surrendering user will have no further obligation to pay any charges in respect of that capacity; and
- the acquiring user has an absolute right (without any obligation to queue) to acquire the surrendered capacity from Epic.

Origin also expressed concern that aggregation efficiencies will and should impact on the quantity of any surrendered capacity, thus making the quantity to be surrendered unclear and subject to dispute.[439]

3.4.4 Epic's response to submissions

Epic indicated that it considered Origin's concerns to be of an insignificant nature.[440]

[438] Origin submission 21 September 2000, p 40.

[439] Origin submission 21 September 2000, pp. 40-41 at 24.2.4.

3.4.5 Commission's considerations

The Commission agrees with Origin's submission that clause 26.6(a)(vi) is unnecessary. Epic does not need to know a user's reason for trading a Marketable Parcel of MDQ, as this would give Epic an undesirable amount of commercially sensitive information that is beyond what is necessary for the purpose of the trading policy. Accordingly, the Commission requires Epic to comply with amendment FDA3.32.

Amendment FDA3.32

For the access arrangement to be approved, the Commission requires Epic to remove clause 26.6(a)(vi).

In proposed amendment A3.3 of its *Draft Decision*, the Commission required Epic to insert the following provision into clause 26:

> Capacity that is released by a user:
>
> (a) otherwise than under the trading policy clause 26.2,
>
> (b) for reason that a consumer or aggregator has changed suppliers
>
> May be contracted by another user, or a prospective user:
>
> (i) who is (directly or indirectly) supplying that consumer (or aggregator); and
>
> (ii) without following the queuing process set out in clause 10.

In its submission of 11 October 2000 Epic indicated that it would make the amendment required.[441] Epic has amended clause 26.7 of the access arrangement. The Commission considers that Epic's amendment addresses the concerns raised in the *Draft Decision*. Accordingly, the Commission is satisfied with clause 26.7 as amended.

In proposed amendment A3.30 of its *Draft Decision*, the Commission required Epic to amend clause 26 as proposed in its lodgement of 2 March 2000 and letter dated 26 March 2000. Epic has made the proposed changes.

In relation to Origin's submissions as to proposed amendment A3.3, the Commission considers that the current wording of the amendment is acceptable. The Commission considers that it is acceptable for Epic to maintain some discretion as to whether to agree to a capacity release in the circumstances described in A3.3. Accordingly, no further amendment of this clause is required.

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[440] Epic's response to Origin's submission 31 October 2000, p. 16 at 24.1.
[441] Epic submission 11 October 2000 Part A, p. 17.

3.5 Extensions and expansions policy

Clause 10 contains the service provider's extensions/expansions policy. Clause 10 of the 29 June 2001 access arrangement has been substantially revised from Epic's original access arrangement of 1 April 1999. As a result there were a number of proposed amendments and submissions that are no longer relevant which the Commission does not propose to address.

3.5.1 Code requirements

The Code requires an access arrangement to have an extensions/expansions policy (section 3.16). The policy is to set out the method to be applied to determine whether any extension to, or expansion of the capacity of the pipeline will be treated as part of the covered pipeline. A service provider is also required to specify the impact on reference tariffs of treating an extension or expansion as part of the covered pipeline.[442] In addition, an extensions/expansions policy must outline the conditions on which the service provider will fund new facilities and provide a description of those new facilities.

The Code's requirements relating to new facilities investment are contained in sections 8.15 – 8.19 of the Code. The Code (sections 8.15-8.16) allows for the capital base to be increased to recognise additional capital costs incurred in constructing new facilities for the purpose of providing services. Under section 8.16 of the Code, 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 (section 8.16(a)) and one of the following is satisfied (section 8.16(b)):

i if the incremental revenue is not expected to exceed the cost of the investment; or

ii the service provider and/or users must satisfy the relevant regulator that the new facility has system wide benefits (justifying higher tariffs for all users); or

iii that the new facility is necessary to maintain the safety, integrity or contracted capacity of services.

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 of section 8.16 of the Code which are noted above when the investment is forecast to occur (section 8.20 of the Code).

3.5.2 Epic's proposal

Clause 10 of Epic's 29 June 2001 access arrangement provides:

- the service provider will construct new facilities where the service provider believes that the tests in section 6.22 of the Code have been satisfied;

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442 For example, reference tariffs may remain unchanged, but a surcharge may be levied on incremental users.

- the service provider may otherwise construct new facilities to meet the requirements of prospective users and may seek a capital contribution or surcharge from prospective users;
- expansions and extensions to the covered pipeline are part of the covered pipeline unless Epic, by notice to the Commission, elects otherwise; and
- new facilities which are part of the covered pipeline will not affect the reference tariff before the next revisions commencement date.

Epic has subsequently amended its proposed approach to expansions and extensions. Epic's latest proposal is that:

> New Facilities that are constructed will not be part of the Covered Pipeline, unless the Service Provider, by notice to the Regulator (given before those facilities come into service) elects otherwise.[443]

3.5.3 Issues raised in the Commission's issues paper

In its *Issues Paper* of 25 May 2001, the Commission raised the possibility of rolled-in tariffs for the MAPS. Where incremental investment is rolled-in to the capital base, the reference tariff would be adjusted, such that all customers (new and existing) pay the same price. The Commission raised the issue of whether it would be desirable for forecast capital expenditure to be rolled-in to the capital base as it is scheduled to occur, generating a suite of reference tariffs for the access arrangement period that would apply as demand expands.

The Commission raised this issue because augmentation of the MAPS may be required prior to the commencement of the next access arrangement period if a second pipeline from Victoria to South Australia is not constructed. The Commission was concerned that Epic's revised extensions/expansions policy may result in multiple tariffs for haulage on the MAPS because there is currently no provision for rolling-in incremental investment into the capital base in Epic's access arrangement. In the absence of such a provision, users who are unable to acquire existing capacity may face a significantly higher tariff for haulage services (because of the higher cost of incremental capacity) than those customers with access to existing capacity.

3.5.4 Submissions by interested parties

Market participants made a number of submissions in relation to the extensions/expansions policy and the issue of rolled-in tariffs.

Coverage of New Facilities

All of the interested parties who commented on Epic's policy in relation to determining when new facilities are covered, including Santos, Origin, NRG Flinders and Potential Energy, raised concern about the degree of discretion clause 10.4(b) of the access

[443] Epic letter, 29 August 2001, p.5.

arrangement gives Epic.[444] TGT and NRG Flinders submitted that new facilities should be covered unless the regulator consents otherwise.[445]

Santos submitted that the service provider should be required to offer to expand the pipeline.[446]

Approaches to Financing New Facilities

In general, interested parties demonstrated strong opposition to the concept of rolled-in tariffs. The issues raised in submissions are summarised below.

- TGT and Potential Energy submitted that a roll-in would result in uncertainty in regard to future tariffs for users, which would make it difficult to negotiate contracts.[447]
- NRG Flinders and Potential Energy indicated that the prospect of an existing user paying increased tariffs due to a new users' capacity requirements was undesirable.[448]
- Potential Energy and TGT also raised concerns about existing users subsidising new users and argued that tariffs based on the cost of expansion resulted in cost transparency and more appropriate pricing signals.[449]
- Energy SA submitted that a rolled-in approach to tariffs may not allow a dynamically efficient level of investment in the MAPS.[450] Energy SA considers that it is economically efficient to allow for excess capacity over and above the current projected peak requirement when augmenting or building new pipelines. The basis of Energy SA's concern is that under 8.16(a) of the Code the capital base can only be increased by the amount that would be invested by a prudent service provider acting efficiently.
- Potential Energy argued that indicative capital costs are typically overstated and optimal outcomes are more likely to be achieved at the time an expansion takes place rather than including forecast capital expenditure in the cost base for reference tariffs.[451] AGLES&M indicated that estimation of the cost of expansion was likely to delay the finalisation of the access arrangement.[452]
- TGT and Origin submitted that a rolled-in tariff on the MAPS would distort the cost of incremental capacity.[453] Origin indicated that a rolled-in tariff would pre-empt decisions regarding whether the MAPS should be expanded or an alternative pipeline should be built as existing capacity would subsidise incremental capacity.

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[444] Origin submission, 11 July 2001, p 6, TGT submission, July 2001, p 2, NRG Flinders submission, 29 June 2001, p 1, and Santos submission, 10 July 2001, p 2.

[445] TGT submission, July 2001, p 2 and NRG Flinders submission, 29 June 2001, p 2.

[446] Santos submission, 10 July 2001, p 2.

[447] TGT submission, July 2000, p 3 and Potential Energy submission, 29 June 201, p 2.

[448] NRG Flinders submission, 29 June 2001, p 2 and Potential Energy submission, 29 June 201, p 2.

[449] Potential Energy submission, 29 June 201, p 2 and TGT submission, July 2000, p 3.

[450] Energy SA submission, 29 June 2001, pp. 2-3.

[451] Potential Energy submission, 29 June 201, p 2.

[452] AGLES&M submission, 29 June 2001, p 1.

[453] TGT submission, July 2001, p 3 and Origin submission, 11 July 2001, p 3.

TGT indicated that the MAPS would have an unfair advantage over a greenfields pipeline.[454]

- Potential Energy and TGT indicated that multiple tariffs for the MAPS are not inappropriate.[455] TGT argued that multiple tariffs are in fact the norm and that there will be multiple tariffs post 2005 due to existing contracts that are in place for that period. TGT argued further that the regulatory regime was intended to encourage negotiations between the parties, which is likely to lead to different terms and conditions for different shippers.
- Energy SA suggested that market forces, such as a pipeline from Victoria to South Australia, might limit any cost differential between new and existing capacity on the MAPS.[456] Given the potential for a rolled-in tariff to discourage an efficient level of investment, Energy SA argued that on balance it would be preferable to allow market forces to resolve the issue of the price of new capacity.
- AGLES&M submitted that the approach in the access arrangement was acceptable if a pipeline between Victoria and South Australia was built. However, AGLES&M submitted that a trigger mechanism should be included in the expansions / extensions policy in the event that a new pipeline from Victoria to South Australia is not built.[457]
- TGT argued that a shipper that has contracted capacity at the reference tariff or at a negotiated tariff should not be exposed to an increase in its tariff.
- Santos submitted that the extensions policy contained in Epic's access arrangement of 29 June 2001 would result in multiple and confidential tariffs for different users of the MAPS, which would perpetuate the monopoly power of the service provider.[458] Santos submitted that an incremental user should pay the same tariff as existing users unless the net present value of future income from expansions at that tariff is less then the cost of that expansion. Where the net present value is less, the service provider may add a surcharge to the tariffs.
- Origin submitted that an expansion of the MAPS would not satisfy any of the criteria listed in section 8.16(b) of the Code and therefore a roll-in would not be permitted under the Code.[459]

3.5.5 Commission's considerations

Coverage of expansions and extensions under the Code

Section 3.16 requires that an extensions/expansions policy in the access arrangement provide the method to determine whether any extension to or expansion of the pipeline should be treated as part of the covered pipeline.

In assessing the access arrangement lodged by the service provider the Commission is of the view that it must take into account the factors outlined in section 2.24 of the

454 TGT submission, July 2001, p3.
455 Potential Energy submission, 29 June 2001, p 2 and TGT submission, 26 October 1999, p. 3.
456 Energy SA submission, 29 June 2001, p 3.
457 AGLES&M submission, 29 June 2001, p 2.
458 Santos submission, 19 July 2001, p 1.
459 Origin submission, 11 July 2001, p 3.

Code. Section 2.24 factors include: the public interest, the economically efficient operation of the covered pipeline and the interests of users and prospective users. An election by the service provider that a new facility not be covered may affect those factors, and therefore regulatory scrutiny is necessary to ascertain the effect of the proposal. Accordingly, the Commission is of the view that any expansion to or extension of a pipeline could be covered.

Epic does not agree with this interpretation of the Code. In a meeting on 6 September 2001 Epic stated its view that section 3.16 merely requires a policy setting out the method to be applied when determining whether any extension to or expansion of the covered pipeline should or should not be covered. Epic argues that its proposed policy sets out such a method and therefore complies with the requirements of the Code.

The Commission has considered Epic's views and does not agree. In assessing the proposed extension/expansions policy the Commission considers that it is bound to consider the merits of the proposal against the factors listed in section 2.24 of the Code.

In a meeting on 6 September 2001, Epic has further submitted that section 1.40 of the Code talks about the period after the access arrangement has come into effect and therefore, cannot have a retrospective action in respect of expansion/extensions.

Further, it is Epic's view that the revised proposal suggested by the Commission has a retrospective effect. The Commission does not propose that the extensions/expansions policy have a retrospective effect, that is, the policy should apply only from the date the Access Arrangement takes effect.

In relation to extensions and expansions to a pipeline that are carried out after the pipeline becomes a covered pipeline, section 1.40 states that an extension or expansion to a covered pipeline shall be treated as part of the covered pipeline for all purposes under the code if the extensions/expansions policy contained in the Access Arrangement for the covered pipeline provides that it is to be so treated. It is the Commission's view that an extension or expansion constructed after the pipeline becomes a covered pipeline, but before the access arrangement takes effect can be dealt with pursuant to the extensions/expansions policy in the access arrangement.

Coverage of New Facilities

Epic's latest proposed extensions/expansions policy is that new facilities will not be covered unless, by notice to the Commission, Epic elects otherwise. In considering whether this is reasonable, it is necessary to consider the environment in which any expansion or extension would take place.

South Australia requires additional gas supplies to accommodate market growth and the gas dependent investments that have been proposed. In the presence of excess demand, prospective users have little choice but to finance an expansion of the MAPS if they want to continue with proposed developments. Prospective users could utilise alternative fuel sources, but in the context of South Australia such alternatives are in the main prohibitively expensive.

Owing to the excess demand that is present in the market, Epic may be able to exercise a degree of market power in setting the terms and conditions, including tariffs, for an

expansion. This is because it is not constrained by competition or regulation (if Epic were to elect that new facilities would not be covered). Potentially, Epic could be in a position to extract monopoly rents by pricing expansions at just below the point where it would no longer be commercially viable for a prospective user to continue with its proposal.

Such behaviour may discourage investment and entry into downstream markets, and is likely to affect the competitiveness of entrants in downstream markets. As a result, where entry does occur, new entrants may be unable to act as a competitive constraint on incumbents because their costs are higher as they are paying more for gas transportation. Effective competition in downstream markets, and the resulting efficiency gains, would not be achieved. The service provider would capture monopoly rents that would otherwise be passed onto business and households in the form of lower prices. This may impact on South Australia's economic growth potential.

Accordingly, the Commission considers that the economically efficient operation of the covered pipeline; the public interest, including the public interest in having competition in markets; and the interests of users and prospective users each require that expansions to the pipeline should be covered unless the regulator consents otherwise.

Coverage of new facilities would entitle prospective users to make use of the dispute resolution processes provided in section 6 of the Code.

In terms of extensions, it is not clear that Epic would have as much market power compared with expansions, as it appears that other pipeline companies would be able to construct geographical extensions to the pipeline. This is because Epic's economies of scale and scope in terms of expanding the existing pipeline are substantially greater than for extending the pipeline.

In these circumstances the Commission considers that Epic's approach to extensions in its revised access arrangement of 29 June 2001 is appropriate.

The Commission requires the following amendments to made in respect of the extensions/expansions policy in Epic's revised access arrangement of 29 June 2001.

Proposed amendment FDA3.33

For the access arrangement to be approved, the Commission requires that Epic amend clause 10.4(b) to the following:

> At the time it comes into operation, any New Facility, except for an extension to the Pipeline, is to be considered part of the Covered Pipeline, unless at that time the Regulator agrees that the New Facility should not be covered. Extensions will be part of the Covered Pipeline, unless the Service Provider, by notice to the Regulator (given before those facilities come into service) elects otherwise.

Recent expansion of the pipeline system for National Power (now Pelican Point Power)

The MAPS has recently been expanded to provide additional capacity for Pelican Point Power. Epic has argued that the Pelican Point expansion should not be included as part

of the covered pipeline because the proposed access arrangement will provide that any expansion of the pipeline will not be covered unless Epic elects otherwise.[460] In a meeting on 6 September 2001, Epic has further submitted that section 1.40 of the Code talks about the period after the access arrangement has come into effect and therefore, can not have a retrospective action in respect of expansions.

The Commission does not accept these submissions. The Commission is of the view that it is appropriate for the Pelican Point Power expansion to be include under the access arrangement in view of the application of the expansions policy as amended above. The Commission is concerned that in the absence of the inclusion of the expansion that Epic will be in a position to exercise market power in respect of that capacity in the future.

It is the Commission's view that section 1.40 of the Code is not being applied retrospectively, rather the Pelican Point Power expansion will become part of the covered pipeline at the time that the access arrangement comes into effect in accordance with the expansions policy.

Approaches to Financing Expansions

Clause 3.16(b) of the Code requires that an access arrangement specify how any covered extension or expansion would affect the reference tariff. The two alternatives are a rolled-in tariff or an incremental costs approach. Under an incremental costs approach, prospective users would pay a tariff that reflected the cost of incremental capacity. For example, one method is for the incremental user to pay the reference tariff plus a surcharge for the costs of the expansion which are not met by the addition to the service providers revenue. Rolled-in tariffs are discussed above in section 3.2.3.

Epic's proposal provides for incremental capacity to be financed by incremental users. The Commission has a number of concerns with such an approach, which are outlined below.

- There is likely to be multiple tariffs for the same service and a level playing field would not exist in down stream markets. If prospective entrants into either the gas retail or electricity generation markets had to pay significantly higher tariffs for gas transportation, this might effect their ability to compete in those markets and therefore the likelihood and effectiveness of their entry. The result could be either that new entry is limited, or that such entry is unable to act as a competitive constraint on incumbents.
- However, market participants submitted that multiple tariffs are not uncommon and not inappropriate. Irrespective of whether future expansions would be rolled-in, different tariffs will be paid for expansions that were contracted in recent years. Further, it is possible that users and the service provider will negotiate tariffs commercially rather than adopt the reference tariff so it is possible that multiple tariffs will exist even if the costs of expansions are rolled-into the capital base.

[460] Epic letter 29 August, 2001.

Nevertheless, the Commission does not consider that multiple tariffs for the same service is an optimal outcome.

- If an incremental costs approach to expansions is adopted, existing capacity will be cheaper than developable capacity and there is likely to be excess demand for existing capacity as it becomes available. Some form of mechanism to allocate this capacity is required. In the absence of a roll-in at some point, the difficulty in allocating the capacity will remain and reoccur each time contracts expire.
- The incremental costs of expansion are not constant. For example, the next few stages of expansion on the MAPS are relatively expensive and would produce relatively little additional capacity. Therefore, prospective users may be reluctant to finance an expansion of the pipeline.

On the other hand, a roll-in is also problematic in the context of the MAPS. For example:

- As Origin and TGT submitted, a rolled-in tariff on the MAPS may deter investment in an alternative pipeline. Under a roll-in, the cost of expansion is averaged over all users. Therefore prospective users would not pay the marginal cost of incremental expansion but the average cost of all capacity. As a result, expansion of the MAPS is likely to be preferable on the basis of cost than the development of a new pipeline for prospective users.
- A rolled-in tariff, particularly one which estimates tariffs depending on the amount of expansion which takes place, results in a degree of uncertainty for users.
- It does not appear likely that a rolled-in tariff would meet the requirements of the Code at this stage. As outlined above, an expansion can be rolled-into the capital base if the criteria in section 8.16 are satisfied. Section 8.16(b) requires that one of the following conditions are satisfied:
  - (i) the Anticipated Incremental Revenue generated by the New Facility exceeds the New Facilities Investment; or
  - (ii) the Service Provider and/or Users satisfy the Relevant Regulator that the New Facility has system-wide benefits that, in the Relevant Regulator's opinion, justify the approval of a higher Reference Tariff for all Users; or
  - (iii) the New Facility is necessary to maintain the safety, integrity or Contracted Capacity of Services.

Epic has indicated that because the MAPS is fully compressed and the pipeline must be looped to expand capacity, further expansions in the near future would be unlikely to satisfy 8.16(b)(i).

Section 8.16(b)(ii) provides for a roll-in where the service provider and/or users satisfy the regulator that a new facility would result in system wide benefits which would justify higher tariffs for all users. According to Origin, system wide benefit involves enhancing the security of supply, which is unlikely to occur for an expansion of capacity. Users and the service provider have not argued that system wide benefits would be likely to occur. While the Commission has not assessed whether an

expansion would result in system wide benefits, on the basis of submissions there is some doubt that it would.

There is no evidence before the Commission that an expansion is required to maintain safety, integrity or the contracted capacity of services (section 8.16(b)(iii) of the Code).

Accordingly, it does not appear that an expansion of the MAPS would be likely to satisfy section 8.16(b) of the Code at this stage.

Determining which approach is preferable involves balancing the advantages of each approach. In brief, the key issues are as follows:

- whether a rolled-in tariff would be permitted under the Code in the current circumstances;
- the effect on incentives to expand existing infrastructure or build new infrastructure;
- the effect multiple tariffs may have on competition in downstream markets; and
- the allocation problem arising from the excess demand for existing 'cheap' capacity.

On balance the Commission considers that an incremental approach to expansions is preferable because:

- it does not distort economic incentives for expansion and new investment;
- a roll-in may not satisfy section 8.16(b) of the Code at present;
- the allocation problem can be solved by other means as discussed below.

However, the Commission notes that it may be appropriate in future regulatory periods for expansions to be rolled into the capital base. Such proposals will be considered at that time and the issue of whether new facilities investment should be rolled-in to the capital base will be revisited in the next access period if appropriate.

Method of Incremental Pricing

Clause 3.16(b) of the Code requires an access arrangement to specify how any covered extension or expansion would effect the reference tariff.

Clause 10.4(a)(iii) of the access arrangement provides that the service provider may seek a capital contribution or a surcharge from prospective users. Clause 10.4(c) provides that any covered new facilities will not affect the reference tariff before the next revisions commencement date.

The Commission notes that clause 10.4(c) appears to preclude a roll-in during this regulatory period. In the absence of forecast expansions under section 8.20 of the Code, section 8.15 provides that capital expenditure can only be rolled-in at the commencement of an access period. Clause 10.4(c) is therefore consistent with the Code. Accordingly, while the Commission considers that clauses 10.4(a)(iii) and 10.4(c) meet the requirements of the Code and are acceptable at this time, these clauses may be subject to change in future regulatory periods.

3.6 Queuing Policy

3.6.1 Code requirements

Sections 3.12 to 3.15 set out the Code's requirements for a queuing policy. An access arrangement must include a queuing policy for determining the priority given to users and prospective users for obtaining access to a covered pipeline and for seeking dispute resolution (under section 6 of the Code). The purpose of a queuing policy is to allocate spare and developable capacity where there is insufficient capacity to satisfy the needs of all users and potential users that have requested capacity.

A queuing policy must be set out in sufficient detail to enable users and prospective users to understand in advance how it will operate. It must also, to the extent reasonably possible, accommodate the legitimate business interests of the service provider, of users and prospective users, and must generate economically efficient outcomes.

3.6.2 Epic's proposal

Clause 10 of Epic's 29 June 2001 access arrangement provides:

- requests for service will be accorded priority on a first-come-first-served basis and will be dealt with in that order;
- the service provider may deal with requests for service outside their priority provided that the request/s for service ahead in the queue are not disadvantaged; and
- there is no automatic right of renewal of a contract in the access arrangement.

3.6.3 Submissions by interested parties

Market participants made the following comments in relation to the queuing policy in clause 10 of Epic's 29 June 2001 access arrangement.

Energy SA and TXU submitted that a first in first served queue was not appropriate.[461] The South Australian Government indicated that:

> a "first in, first served" policy is not fair and equitable, nor practical from the point of view of good public policy which seeks to produce optimal outcomes for all parties.

TXU was strongly opposed to a first in first served policy on the basis that such a policy:

- Allocates capacity on a trivial basis which results in capricious outcomes as prospective users who were seconds slower than other users may have to pay substantially higher tariffs.

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[461] Energy SA submission, 29 June 2001, p 1 and TXU submission, 21 May 2001, p 1-6.

- Allocation of capacity on the basis of first in, allows market participants with access to that capacity to exercise market power in circumstances where existing capacity is significantly cheaper than alternative capacity. For example, a party with capacity that it does not require could on sell this gas to prospective users at a premium. Presumably, there is scope for such a 'wholesaler' to price up to the cost of incremental expansion.
- Allows, if not encourages, ambit capacity requests.
- Does not allow for consideration of the relative commercial merit of a proponent's requirement for gas. Where proponents make ambit requests market signals regarding the true requirements for new capacity are obfuscated.
- May lead to results which are contrary to the interests of South Australian consumers. For example, if a market participant is able to obtain access to existing capacity it could capture economic rents on that capacity which could ultimately be passed on to consumers.

TXU indicated that the current 'queue' for capacity on the MAPS demonstrates its concerns. The MAPS becomes substantially uncontracted in 2006. Epic indicated that it would accord priority for contract negotiations for that period on a first in first served basis. Total requests for gas substantially exceeded the capacity of the pipeline.

Subsequently, TXU notified an access dispute under the *Natural Gas Pipelines Access Act (South Australia) 1995* (NGPAA 1995). The NGPAA 1995 provides for an access regime for gas transmission in SA and provides that an access dispute exists if requests for service exceed the capacity of the pipeline. The 1995 South Australian access law was repealed by the GPAL but continues to apply until an access arrangement is approved under the Code.

Potential Energy submitted that clause 10 provided a workable system for prospective users as it allows for prospective users to do the following:[462]

- inquire about the availability of capacity and its indicative cost on an informal basis;
- firm up the availability and cost of capacity without committing to that capacity;
- retain a position on the queue while feasibility studies are conducted.

NRG Flinders submits that it 'agrees with the proposed queuing policy.[463] TGT indicated that clause 10 was acceptable.[464] Origin noted that the first in first served is more flexible and less prescriptive than Epic's original queuing policy.[465]

Alternative Queuing Policy

Due to concerns in relation to the operation of a first in first served queue in the current circumstances of the South Australian gas industry, the Commission sought comments from market participants on an alternative queuing policy. The alternative raised by the

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462 Potential Energy submission, 29 June 2001, p 1.
463 NRG Flinders submission, 29 June 2001, p 1.
464 TGT submission, July 2001, p 2.
465 Origin submission, 11 July 2001, p 6.

Commission involved the service provider holding an open season prior to allocating existing capacity. The open season would involve the service provider advertising that spare capacity was available and allowing prospective users to submit a request for service. Where the demand for existing capacity exceeded capacity, capacity would be allocated by negotiation, conciliation or arbitration.

Market participants, including TXU, Energy SA, National Power, AGLES&M, and NRG Flinders supported the proposed queue in principle.[466]

TXU indicated that the alternative policy was a 'very positive advance which has the potential to provide benefits both to participants in the South Australian gas market and ultimately to consumers of both gas and electricity in South Australia'.[467]

Origin indicated that it was an appropriate method to allocate spare capacity to incremental users in circumstances where:[468]

- Users with contracts have been given the opportunity to renew their contracts and have decided not to recontract;
- Existing users' requirements for gas have been satisfied. Origin consider that the intent of Section 6.15(d) of the Code is that existing users of gas should have priority over incremental users.

A number of parties made comments in relation to the details of the proposed policy, which are outlined below.

- Energy SA, ANP, AGLES&M and TXU submitted that the queuing policy for existing capacity should provide for conciliation and/or negotiation prior to arbitration. This is on the basis that an outcome arising out of conciliation / negotiation is more timely and cost effective.[469]

  In relation to the terms of conciliation / negotiation, ANP and TXU argued that participation should be voluntary and if one party withdraws the dispute would automatically go to arbitration.
- ANP submitted that there should be a definite time period for each stage of the process.[470] ANP and TXU both suggested that the dispute process should have a final closing date for all requests for capacity.[471] TXU indicated that 60 days would be a reasonable period for the submissions of requests for service.
- AGLES&M and Energy SA submitted that requests for developable capacity should be aggregated rather than dealt with on a first in first served basis.[472]

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466 TXU submission, 17 August 2001, p 1 – 3, Energy SA submission, 8 August 2001, p 1 – 2, ANP submission, 7 August 2001, p 1- 2, AGLES&M submission, 8 August 2001, p 1 – 2, and NRG Flinders, telephone conversation with Commission staff on 14 August 2001.

467 TXU submission, 17 August 2001, p 1.

468 Origin submission, 16 August 2001, p 2.

469 TXU submission, 17 August 2001, p 2, Energy SA submission, 8 August 2001, p 1, ANP submission, 7 August 2001, p 2, AGLES&M submission, 8 August 2001, p 1.

470 ANP submission, 7 August 2001, p 1.

471 TXU submission, 17 August 2001, p 2.

472 AGLES&M submission, 8 August 2001, p 1 and Energy SA submission, 8 August 2001, p 1.

AGLES&M argued that this was necessary because different tranches of developable capacity may have different costs, and therefore would need to be offered to customers at different prices on the basis of their priority in the queue. AGLES&M suggested that developable capacity and existing capacity should be dealt with in a single process because having separate queuing policies is not workable in practice.

- TXU submitted that a queue was not necessary for developable capacity because an operator would presumably be prepared to augment the pipeline to meet new demand.[473]
- ANP noted that the process provided for must not compromise, deteriorate or over ride the rights available to access proponents under the arbitration process described in the GPAL.[474]
- Energy SA submitted that it would be preferable for the regulator to opt not to be the arbitrator given that the focus of the arbitration should be on achieving an outcome which is commercially acceptable to all parties.[475] Additionally, Energy SA suggested that alternative means of allocating capacity could be adopted in limited circumstances, such as an auction and the allocation of contracted but unused capacity to a prospective user for a fixed time.
- TGT submitted that the proposed queuing policy was unnecessary as the capacity allocation issue which has arisen in relation to 2006 will be resolved under 1995 South Australian access law. However if an arbitration process was included in the access arrangement, it should be confined to the 2006 capacity issue. TGT argued that such a process would be cumbersome if it was to apply to spare capacity for any quantity every time it arose.[476]
- TXU noted that as the proposed process was not a queue that the concept of a queue should be dispensed with.[477]
- TXU submitted that for the process to operate efficiently and effectively, there should be a requirement that service requests should be made 'in good faith, reflect a proponent's reasonable commercial requirements and be one to which the proponent is prepared to immediately commit by entering a contract.[478]

Factors for the arbitrator to take into account

For the reasons discussed below, the Commission proposed that the access arrangement should specify a number of factors which the arbitrator may take into account. The factors proposed by the Commission were as follows:

- The applicant's willingness to contract immediately;
- The period over which the applicant is willing to contract;
- The feasibility of pro rating demand;

473 TXU submission, 17 August 2001, p 2.
474 ANP submission, 7 August 2001, p 1.
475 Energy SA submission, 8 August 2001, p 1.
476 TGT submission, 13 August 2001, p 1.
477 TXU submission, 17 August 2001, p 2.
478 TXU submission, 17 August 2001, p 2.

- Whether or not a prospective user has an existing contract for developable capacity;
- The prospective users' intended use for the gas; and
- Demand and supply projections for gas in South Australia.

The Commission received a number of comments on the suggested factors that the arbitrator may take into account. These are outlined below.

- TXU indicated that it agreed with most of the factors set out. However, TXU submitted that whether or not pro rating was fair and equitable should be the relevant consideration rather than the feasibility of pro rata. TXU suggested that the arbitrator should consider whether pro rata is equitable in the circumstances giving due weight to proponents who have underpinned the development of the pipeline by previously contracting capacity.[479]
- According to TXU the arbitrator should also consider the following:[480]
  - The factors listed in section 22 of the South Australian legislation;
  - The likely implications for future capital expenditure in pipelines as a result of the arbitrator's decision; and
  - Whether the access requests are made by end users of the gas or by intermediary players who propose to on sell their gas or their haulage rights.
- AGLES&M submitted that the first, third and sixth factors were relevant considerations for the arbitration.[481] AGLES&M made the following comments in respect of the other factors:
  - The period over which a prospective user is willing to contract should not be taken into account because existing capacity is a scarce resource and it should not be 'locked up'.
  - Non-discrimination between the applicants is the highest priority and that favouring users with existing contracts represents a possible basis for discrimination.
  - While the seasonality of demand for gas may be relevant, the end use of the gas itself should be not taken into account by the arbitrator.
  - AGLES&M suggested that the arbitrator should also have regard to whether or not a prospective user would be willing to offer unutilised capacity to a secondary market.
- TGT submitted that:
  - The first and second factors should be taken into account;
  - The fifth factor should be amended to a user's requirements for the gas rather than its intended use for the gas;
  - The arbitrator should also have regard to all relevant economic, technical and legal issues.

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[479] TXU submission, 17 August 2001, p 3.
[480] TXU submission, 17 August 2001, p 3.
[481] AGLES&M submission, 8 August 2001, p 2.

- Origin made the following comments:[482]
  - The period over which a prospective user is willing to contract may differ according to the end use of the gas and therefore this factor may favour some market participants, such as electricity generators, over retailers.
  - A pro rata may encourage prospective users to make ambit claims and may result in projects not being viable where a minimum gas requirement is not satisfied. Origin was also concerned that pro rating demand may reduce an existing retailers capacity to service its existing market.
  - Origin indicated that the arbitrator should also take into account any other matters that it considers relevant.
- ANP indicated that its understanding of the intent of the fifth clause was to determine whether the proponent has a legitimate end use for gas and not merely gaining capacity to on sell at a later date. ANP supported this principle and indicated that priority should be given to an existing gas user rather than to a speculative request.

3.6.4 Epic's response to alternative queue

In response to the Commission's concerns regarding a first in first served queue, and the Commission's proposed alternative queue, Epic submitted a revised queuing policy.[483] This policy is reproduced below. The major aspects of Epic's revised queuing policy of 29 August 2001 are the following:

There will be two queues for the MAPS: one for developable capacity and a second queue for existing capacity. Priority in the queue for developable capacity will be determined on a first in first served basis. The queue for spare capacity involves the following process:

- Epic will hold an open season before it allocates any spare capacity;
- After the closing date for the open season, Epic will notify prospective users of the total requests for spare capacity received in the open season;
- If complying requests do not exceed spare capacity, the service provide may contract that capacity to prospective users;
- If complying requests exceed spare capacity, spare capacity will allocated to prospective users on a pro rata basis unless a prospective user disagrees with that allocation.
- If a user disagrees with the pro rata, all parties will enter into an alternative dispute resolution process. The nature of that process is to be determined by the parties.
- If the parties are not able to agree on how existing capacity should be allocated within 90 days, Epic will notify a dispute under section 6 of the Code. Spare capacity will then be allocated by an arbitrator.

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482 Origin submission, 16 August 2001, p 3.
483 Epic letter, 29 August 2001, Attachment 1, p 1 – 5.

The Commission received two written responses to Epic's proposed queuing policy. The submissions raised a number of minor points, but were broadly supportive of Epic's approach. The Commission has considered the minor issues raised in these submissions and where appropriate has required amendments.[484]

Epic's proposed queuing policy is set out as follows:

10. QUEUING POLICY AND EXTENSIONS/EXPANSIONS POLICY

10.1 Creation of Two Queues

On receipt of a Complying Request, the Service Provider will enter it in one of the following queues to be created by the Service Provider by applying the following criteria:

(a) A queue for all Complying Requests received where there is no Spare Capacity to satisfy any (or any part of a) Complying Request ("Developable Capacity Queue").

(b) A queue ("Spare Capacity Queue") for all Complying Requests received:

(i) in response to a Spare Capacity Notice (but received before the Open Season Closing Date); or

(ii) at any other time in situations where there is Spare Capacity to satisfy some, all or parts of all of the Complying Request.

10.2 Complying Request to be entered into Queue

(a) Within a reasonable time after receiving a Complying Request (other than a Complying Request received pursuant to a Spare Capacity Notice), the Service Provider must undertake reasonable investigations to determine if Spare Capacity is available or will become available to satisfy the Complying Request.

(b) On making the determination under clause 10.2(a) or when a Subsequent Request is received under clause 10.4(f), the Service Provider must immediately enter the Complying Request (or the Subsequent Request as the case may be) in either the Spare Capacity Queue or the Developable Capacity Queue by applying the criteria in clause 10.1.

(c) A Prospective User must advise the Service Provider immediately it becomes aware it does not wish to proceed with a Complying Request, which Complying Request will then lapse and be removed from the Spare Capacity Queue or the Developable Capacity Queue (as the case may be).

(d) A Complying Request will not lapse and will remain in the Spare Capacity Queue or the Developable Capacity Queue (as the case may be) in the event of an Access Dispute occurring, until that Access Dispute has been resolved in accordance with section 6 of the Code.

10.3 Spare Capacity Open Season

[484] Origin Energy letter, 7 september 2001 and Pelican Point Power letter, 6 September 2001.

(a) This clause applies if the Service Provider enters a Complying Request in the Spare Capacity Queue (other than a Complying Request that is received and entered in response to a Spare Capacity Notice).

(b) As soon as practicable after receiving a Complying Request (other than a Complying Request that is received and entered in response to a Spare Capacity Notice), the Service Provider must:

(i) Provide all Users and Prospective Users (including but not limited to Prospective Users with a Complying Request in either the Spare Capacity Queue or the Developable Capacity Queue) with a form set out in Schedule 5 ("Spare Capacity Notice"); and

(ii) publish in a national daily newspaper a copy of the Spare Capacity Notice.

(c) The Spare Capacity Notice must advise that Complying Requests are to be received by the Service Provider by a date being not less than 30 Days after the date that the Spare Capacity Notice is published in the national daily newspaper ("Open Season Closing Date").

(d) Within 10 Days of the Open Season Closing Date, the Service Provider must notify each Prospective Users who lodged a Complying Request in writing and by publication on the EBB that:

(i) the Complying Request has been placed in the Spare Capacity Queue;

(ii) the aggregate Capacity sought under all Complying Requests received by the Service Provider before the Open Season Closing Date; and

(iii) whether or not the aggregate of all Complying Requests in the Spare Capacity Queue exceed the Spare Capacity stated in the Spare Capacity Notice that was issued.

(e) Where the aggregate of all Complying Requests in the Spare Capacity Queue exceed the Spare Capacity stated in the Spare Capacity Notice, a Complying Request received prior to agreement having been reached in relation to the allocation of the Spare Capacity in accordance with this clause 10 will be entered into the Developable Capacity Queue.

10.4 If Complying Requests do not exceed Spare Capacity

(a) This clause 10.4 applies only if the aggregate of all Complying Requests entered in the Spare Capacity Queue on or before the Open Season Closing Date does not exceed the Spare Capacity stated in the Spare Capacity Notice.

(b) The Service Provider may deal with Complying Requests in any order provided that no Complying Request in the Spare Capacity Queue is ultimately disadvantaged as a result.

(c) The Service Provider and each Prospective User who lodged a Complying Request, must negotiate in good faith with a view to reaching agreement on a relevant Applicable Contract in accordance with the terms contained in the relevant Complying Request within 30 Days of the Open Season Closing Date.

(d) Subject to clause 10.4(f), if:

(i) the Service Provider at any time reasonably believes that a Prospective User is not acting in good faith to conclude negotiations; or

(ii) 30 Days have lapsed since the Open Season Closing Date and an Applicable Contract has not been entered into with a Prospective User,

the Service Provider may issue the Prospective User with a written notice to show cause why its Complying Request should not lapse and why its place in the Spare Capacity Queue should not be lost. A party receiving a notice under this clause 10.4(d) must respond to the Service Provider within 5 Days of its receipt.

(e) A failure by a party to:

(i) respond to a notice issued by the Service Provider under clause 10.4(d) within the time frame specified in that clause; or

(ii) adequately address the matters raised in the notice issued by the Service Provider under clause 10.4(d);

will mean that the relevant Complying Request is deemed to have been withdrawn by the Prospective User and the Complying Request's place in the Spare Capacity Queue will be lost.

(f) If a Complying Request ("Subsequent Request") is received by the Service Provider after the Open Season Closing Date but before Applicable Contracts have been entered into in relation to all of the Complying Requests that were received during the Open Season Closing Date ("Original Requests"), any Original Request with respect to which no Applicable Contract has been entered into will be deemed to have lapsed immediately prior to the receipt of the Subsequent Request and will be removed from the Spare Capacity Queue.

10.5 If Complying Requests exceed Spare Capacity

(a) This clause 10.5 applies if the aggregate of all Complying Requests entered in the Spare Capacity Queue before the Open Season Closing Date can not be satisfied by the Spare Capacity stated in the Spare Capacity Notice.

(b) Immediately after the Open Season Closing Date, the Service Provider will allocate the Spare Capacity equally amongst all the Prospective Users who lodged a Complying Request on a pro rata basis. The Service Provider will notify the Prospective Users of this allocation.

(c) Subject to clause 10.5(d), any part of a Complying Request which has been satisfied by Spare Capacity under clause 10.5(b), will be deemed to be:

(i) an irrevocable Complying Request capable of immediate acceptance; and

(ii) a Complying Request for a FT Service,

in which case, clause 8.1 will apply.

(d) A Prospective User may, within 14 Days of receipt of a notice under clause 10.5(b), notify the Service Provider that it disagrees with the allocation under clause 10.5(b), in which case the remaining provisions of clause 10.5 apply.

(e) The Service Provider and all the Prospective Users who lodged a Complying Request before the Open Season Closing Date must enter into alternative dispute resolution proceedings with a view to reaching an agreement about the allocation of Spare Capacity.

(f) If the parties are able to reach an agreement within 90 Days of the commencement of the alternative dispute resolution proceedings referred to in clause 10.5(e), the part of each Complying Request that has been satisfied by Spare Capacity will be deemed to be an irrevocable Complying Request for a FT Service capable of immediate acceptance and clause 8.1 will apply.

(g) If the parties are unable to reach an agreement within 90 Days of the commencement of the alternative dispute resolution proceedings referred to in clause 10.5(e), then the Service Provider will notify the Regulator that an Access Dispute exists for the purposes of section 6 of the Code.

(h) Upon a determination by the arbitrator about the allocation of the Spare Capacity, the part of each Complying Request that has been satisfied by Spare Capacity will be deemed to be an irrevocable Complying Request for a FT Service capable of immediate acceptance and clause 8.1 will apply.

(i) Any part of a Complying Request that is not satisfied by Spare Capacity under this clause 10.5 will be entered into the Developable Capacity Queue and will be deemed to have been so entered as at the Open Season Closing Date.

10.6 Developable Capacity Queue

(a) A Complying Request entered into the Developable Capacity Queue will have priority according to the time and date that it was so entered and will be dealt with by the Service Provider accordingly. However, the Service Provider may deal with a Complying Request outside of its priority provided that the Complying Requests ahead in the Developable Capacity Queue are not ultimately disadvantaged.

(b) At the time that a Developable Capacity Complying Request is entered into the Developable Capacity Queue, the Service Provider will advise the Prospective User of:

(i) its position in the Developable Capacity Queue;

(ii) the aggregate Capacity sought under Developable Capacity Complying Requests that are ahead in the Developable Capacity Queue;

(iii) the fact that there is no Spare Capacity and:

(A) an outline of the investigations that are required to be undertaken to determine the cost of developing Capacity and the other information required by section 5.5 of the Code; and

(B) a non binding indication, based on current commitments, of its estimate of when Spare Capacity may be available.

(c) A Prospective User may reduce, but not increase, the amount of Capacity sought in a Complying Request which is in the Developable Capacity Queue.

(d) The Service Provider may periodically seek confirmation from a Prospective User that it wishes to remain in the Developable Capacity Queue by written

notice to that effect to each Prospective User in the Developable Capacity Queue. If a Prospective User fails to notify the Service Provider within 14 Days that it wishes to continue in the Developable Capacity Queue, its position in it will be lost and it will be deemed to have withdrawn its Complying Request unless an Access Dispute has arisen.

10.7 Service Provider's Obligations to Provide Service

Nothing under this clause 10 obliges the Service Provider to provide any Service to the Prospective User until the following conditions have been met:

(a) an Applicable Contract has been signed for the Service;

(b) the Prospective User has reasonably demonstrated that it has made appropriate arrangements with its supplier of Gas for the delivery of Gas at the Receipt Points and for the collection of Gas at the Delivery Points; and

(c) the Service Provider is satisfied that the Prospective User meets the creditworthiness requirements in clause 9 of this Access Arrangement.

3.6.5 Commission's considerations

If new facilities are funded on an incremental costs approach, new capacity will be more expensive then existing capacity. An allocation problem arises because of the price differential. The price of existing capacity is regulated. Market forces, which would otherwise allocate the capacity to whoever was prepared to pay the most for it, can not provide an allocation mechanism as such a mechanism would defeat the purpose of regulating the service provider's revenue. The queuing policy must therefore provide the allocation mechanism.

First in first served

In an environment of excess demand, a first come first served queuing policy is problematic. For the MAPS, this is particularly problematic because there will always be excess demand for cheaper existing capacity. The result of a first in first served queue is that from the time the queue becomes operative, priority is allocated to whoever is able to forward a request to Epic first. Thus, prospective users may miss out on capacity by reason of their request being received seconds later then another users, as demonstrated by the current 'queue' for the MAPS. The Commission does not consider that such a queue allocates capacity in a meaningful and efficient manner.

Under first in first served, where there is excess demand, users have an incentive to make ambit claims. Some market participants argued that this would result in unnecessary expansion, or at least obfuscate market signals regarding the need for new capacity. The Commission considers that these are valid concerns.

According to the Code, a queuing policy must generate economically efficient outcomes to the extent reasonably possible, promote the public interest, including the public interest in having competition in markets and consider the interests of users and prospective users.

For the MAPS, which has excess demand, and possibly ongoing excess demand for existing capacity, a first in first served queuing policy allows for the exercise of market

power by the service provider or intermediary market participants. This is not likely to result in economically efficient outcomes and is likely to impede competition in downstream markets.

Alternative Methods

The Commission considered that existing capacity might be allocated by means of an open season with provision for negotiation, conciliation and arbitration where there is excess demand. In coming to that conclusion, the Commission considered a number of alternative approaches, which are discussed below.

Auction

Energy SA suggested that an auction could be used to allocate capacity on the MAPS. This would involve prospective users bidding for the right to pay the reference tariff.

Such a queuing policy was adopted in VENCorp's Access Arrangement for the PTS. When additional capacity is made available, VENCorp is to conduct an auction of that capacity and allocate that capacity in order of highest bids received. The MSOR provides that all monies received by VENCorp as a result of allocating authorised MDQ by auction are to be used by VENCorp to offset its costs for the next financial year. To date no auctions have been carried out.

In its consideration of the Victorian arrangements, the Commission said:[485]

> In principle, the Commission sees merit in the concept of an auction process rather than a queue …
>
> Queuing can be an inefficient way of allocating scarce resources. An auction provides a market mechanism which is more likely to lead to an efficient allocation of the potentially scarce and valuable spare capacity of the pipelines. An auction can deliver a competitive outcome in that the market value of connection may be determined. While successful bidders would in effect pay more than the reference tariff for a service, the additional amount would reflect the value they place on gaining access to the system. Any revenues raised through the auction process will be used to offset VENCorp costs in the subsequent financial year and will benefit users as a whole.

The Victorian arrangements are substantially different to South Australia's. Victoria has a market carriage system in which capacity is allocated to customers. In 1998, when the arrangements were put into place there was an initial allocation. An auction would only be relevant for capacity that is released by a customer who no longer requires it and there is excess demand for that capacity. Additionally, the auction would be conducted by VENCorp, a not for profit organisation.

For many users, the cost of transporting gas is a relatively small part of their total costs but gas is often an essential requirement. Users are likely to value capacity just below the price of the next cheapest alternative, such as a different energy source or gas from another pipeline or expanded capacity on the MAPS. The value of existing capacity is likely to be in excess of the costs of providing that service. This would allow the service provider to obtain economic rents and defeat the purpose of regulating the revenues that can be earned by pipeline owners.

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[485] ACCC, Victorian Gas Transmission Access Arrangements Final Decision, p 137.

To prevent the service provider making economic rents from the auction, a mechanism for returning that revenue back to users would be required, as occurs in Victoria. The revenue from an auction of capacity on the MAPS is likely to be substantially higher than in Victoria because:

- almost all of the capacity on the MAPS would need to allocated by auction;
- the MAPS is now at the point where looping would be required for incremental capacity which is very expensive; and
- in a contract carriage environment, auctions would need to be conducted at the expiration of every contract.

The Commission does not consider that an auction process is feasible when substantial amounts of capacity might need to be reallocated. In some years, the reference tariff might need to be zero or negative. In such circumstances an auction process is unlikely to provide appropriate incentives.

In a contract carriage system, the 'good' auctioned would need to be the right to enter into contracts at the reference tariff. Typically, such contracts are long term and run for up to ten to twenty years. For the revenue to be returned to users in future years through the reference tariff, the contracts would need to specify the reference tariff as set by the regulator from period to period. Market participants have shown very strong dissent in regard to any uncertainty with respect to future tariffs and contracts.

In conclusion, the Commission does not consider that such an approach would be appropriate for the MAPS.

Priority on the basis of public benefit

Another alternative is to use some sort of public interest criteria to prioritise prospective users.

In its submission, Energy SA suggests that it would be possible for the Commission to require that the queuing policy consider the public interest under the Code. Energy SA submits further that the queuing policy *should* do so, however, Energy SA does not indicate what priority would meet the public interest.

There are a range of possible public interest criteria. For example, it could be argued that electricity generation better serves the public interest than retail gas and vice versa.

Theoretically, if accurate public interest criteria could be developed, such a queuing policy would presumably have the advantage of promoting public interest. However, the Commission does not consider that it would be possible to determine in advance how priority should be accorded to promote the public interest. The Commission is able to consider the public interest when it has a proposal before it, but it can not specify how the public interest can be achieved in 15 years time, particularly given the gas industry is currently undergoing significant changes.

Priority for Foundation shippers

It is also possible that foundation shippers could be accorded priority on the basis that the existing capacity is sufficient to meet the requirements of foundation shippers and if further capacity is required it should be funded by those who require it.

Such an argument seems to assume that existing users have a property right to existing capacity which is clearly not the case. Foundation shippers signed contracts, which, while they may have underwritten the construction of the pipeline, were commercial agreements that were also in the commercial interest of those customers. The services that have been provided to foundation shippers have resulted in the consumption of part of the initial capital invested in the pipeline via depreciation.

Such an approach would not accommodate the interests of prospective users as required by 3.13(b) of the Code. In addition, such a policy does not appear to be consistent with the objectives of an access regime and the Code, such as the promotion of competitive markets for natural gas in which customers may choose suppliers, including producers, retailers and traders.

Pro Rata on the basis of Demand

It is possible that existing capacity could be allocated on the basis of a pro rata of demand. Under such an approach, all users would obtain a proportion of existing capacity.

In situations of excess demand, users would then have the option of expanding the MAPS to meet additional demand. The effect of this approach is similar to a rolled-in tariff in that users would end up financing expansions in proportion to their demand. However, the decision regarding whether or not to expand the pipeline is still made on the basis of marginal costs. For example, while on average the user would pay the same as it would if there was a rolled-in tariff, it would base its decision regarding whether to contract for expanded capacity on the MAPS on the costs of an alternative pipeline.

Such a pro rata may encourage users to make ambit claims in the hope that if they request substantially more than they require, they might be allocated sufficient gas to meet their requirements. Potentially, such a problem could be resolved if there was a requirement that requests represent 'bona fide' demand or access to supplies of gas.

Existing users could demonstrate bona fides on the basis of historical use or contracts in existence. However, new entrants or users who wish to increase their market share would have difficulty demonstrating bona fides. New entrants would be faced with the problem that they can not enter into downstream contracts until they have access to transport, and they would not be able to access transport (the cheap transport at least) unless they had downstream contracts.

A further difficulty is that if a pro rata is not associated with an increase in capacity, a number of users might end up with 'unusable' quantities of transport.

Arbitration

The queuing policy could also include a conciliation / arbitration process to allocate capacity. As discussed above, this would involve the service provider holding an open season before allocating spare capacity allowing prospective users to submit a request for service. Where the demand for existing capacity exceeded capacity, capacity would be allocated by negotiation, conciliation or arbitration.

The advantages of such a policy are as follows:

- It would allow all prospective users to seek access to 'cheap capacity' and eliminate a possible barrier to entry.
- Such a policy would provide a high degree of flexibility which allows for the circumstances at the time the issue arises to be taken into account.
- In circumstances where there is excess demand, the parties would be given the chance to negotiate and/or conciliate. Such a multi party process allows for the parties to achieve an outcome that is acceptable to all.

On the other hand, there are several concerns with such a policy:

- It imposes a cost on users in terms of time and money; and
- It creates a degree of uncertainty for users and prospective users.

Conclusion on Queuing Policy

Spare Capacity

While most of the queuing policies discussed above have merit, it does not appear that any of the approaches, other than the conciliation/arbitration policy, are able to allocate existing capacity consistently within the requirements of the Code in all the circumstances that may occur in the South Australian gas industry.

In fact, given that the existing capacity could be contracted for a significant period of time, the issue of according priority may not arise for another 15 to 20 years. It is difficult to determine which queuing policy would be preferable at that time because the dynamics of the industry are changing significantly and there are a number of proposed infrastructure developments.

Epic's revised queuing policy of 29 August 2001 allocates existing capacity on the basis of a pro rata where there is excess demand. However, if a prospective user is dissatisfied with such an outcome, for example, if the user considered that another user had made an ambit claim, that user may trigger a dispute resolution process.

As indicated above, the Commission is concerned that there may be some circumstances in which it is not appropriate to pro rata demand. However, the Commission considers that Epic's proposal is reasonable because if a pro rata is inappropriate, existing capacity would be allocated through an alternative dispute resolution process.

The Commission considers that the inclusion of a dispute resolution process is necessary. This is because it is imperative that the queuing policy provides sufficient

flexibility to allow for the most effective outcome, given the particular circumstances at that time, to be reached.

The Commission acknowledges that such an approach is not costless, but considers that it is necessary for the MAPS because the other policies may not satisfy the requirements of the Code in the circumstances at that time. Given the long-term nature of gas transportation contracts, the Commission considers that incurring some costs in allocating the capacity so that the allocation is appropriate would result in the most efficient outcome overall.

The Commission notes that most users and the service provider supported such a conciliation/arbitration approach. Accordingly, given the support from market participants and the fact that it is critical for the policy to provide a high degree of flexibility, the Commission considers that the provision for a dispute resolution process in Epic's proposed queuing policy of 29 August 2001 is appropriate.

Developable Capacity

A first in first served approach is not appropriate in circumstances where there are multiple tariffs as there will always be excess demand for the cheaper capacity and first in first served is not capable of allocating that capacity in an efficient manner. However, for requests for developable capacity, a first in first served queue is appropriate.

For developable capacity, the service provider would be able to meet all requests for service and there is not likely to be excess demand for that capacity.

Nevertheless, some submissions suggested that some form of open season should be conducted for developable capacity or that developable capacity should be incorporated into the open season for existing capacity. This was on the basis that it is more efficient to aggregate expansion that takes place and also that different tranches of expansions have different costs. The Commission agrees that aggregation of requests for developable capacity is preferable, however, does not consider that it would be necessary or appropriate to require the service provider to do so. It is in the interests of Epic to do so, and it has indicated to the Commission that it would.

It was also suggested that a queue was not necessary for developable capacity because the service provider would be prepared to provide required augmentation to meet new demand. While the Commission believes that the service provider is likely to expand as required, there are benefits to including developable capacity in the queue. First, it allows a prospective user to notify a dispute if it is unable to reach agreement with Epic in regard to the terms and conditions of augmentation. Second, it prioritises users where there are a number of requests, which may benefit prospective users where the next expansion is more costly or another prospective user offers to pay if it is entitled to expanded capacity first. If Epic aggregates expansions these issues are not likely to arise, nevertheless, the Commission considers that it is worthwhile to provide this protection.

Accordingly, the Commission considers that Epic's proposal of 29 August 2001 is largely acceptable and requires that it be incorporated into clause 10 of the 29 June 2001 access arrangement in accordance with the following amendment.

Amendment FDA3.34

For the access arrangement to be approved, the Commission requires Epic to replace clauses 10.1 – 10.3 of its 29 June 2001 access arrangements with clauses 10.1 to 10.7 of its proposal of 29 August 2001.

However, there are some aspects of Epic's proposal that the Commission believes require adjustment. These are described below.

It is possible that a user might notify a dispute under the Code before the alternative dispute resolution process described in clause 10.5 of Epic's proposal of 29 August 2001 is complete. The Commission considers that it may be preferable in some circumstances for the alternative dispute resolution process to run its course before the dispute is arbitrated. While the Commission may not bind the discretion of a future arbitrator on this matter, it would be appropriate for a future arbitrator to consider the status of the alternative dispute resolution process before progressing to arbitration. Accordingly, the Commission requires that Epic include a statement in its access arrangement that asks a future arbitrator to have regard to the alternative dispute resolution process set out in the queuing policy. This amendment is set out in FDA3.35.

The Commission is concerned that there could potentially be circumstances where Epic might be able to enter contracts with users for spare capacity without undertaking the open season process set out in clause 10.3. Some users may have an incentive to enter into such an agreement in order to avoid the pro rating approach specified in the queuing policy. Epic has indicated that it does not intend for this circumstance to arise. In order to avoid any doubt the Commission requires the inclusion of explicit statement to this effect in the access arrangement. This amendment is set out in FDA3.35.

Clause 10.4(f) provides that in certain circumstances, Epic may grant a higher priority to requests received after the close of the open season than those received during the open season. The Commission considers that these circumstances need to be qualified. In particular, the Commission requires that new requests for service may only be granted a higher priority if the conditions in 10.4(d) have been satisfied. This amendment is set out in FDA3.35.

There appears to be an inconsistency in the timing specified in clause 10.5(c) because of the requirements of clause 8.1. Clause 8.1 requires users to submit to the service provider an applicable contract, duly executed, within 10 days. However, proposed clause 10.5(d) permits users to lodge a dispute within 14 days following notification of the proposed allocation of spare capacity. The Commission considers that the period for lodging a dispute must be permitted to run before the obligations in clause 8.1 apply. An amendment to this effect is set out in FDA3.35.

Clauses 10.5(f) and (h) provide for spare capacity to be allocated in the event of a successful resolution of the dispute process. The Commission considers that these clauses should be amended in order to clarify that the spare capacity may only be allocated pursuant to the outcome of the dispute resolution processes. Amendments to this effect are set out in FDA3.35.

Amendment FDA3.35

Amendments to Epic's proposal of 29 August 2001

Notification of other disputes

For the access arrangement to be approved, the Commission requires Epic to add the following into clause 10.5:

> If a Prospective User notifies a dispute in relation to the Spare Capacity which was the subject of an Open Season before the negotiation and conciliation processes have been completed, the Relevant Regulator may consider, in accordance with section 6.3 of the Code, whether an alternative dispute resolution process would be appropriate.

Epic not to agree to allocate spare capacity outside of the queuing policy

For the access arrangement to be approved, the Commission requires Epic to add the following at the start of clause 10.1:

> Before the Service Provider agrees to allocate Spare Capacity it must undertake the Open Season process described in clause 10.3.

Qualification of clause 10.4(f)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.4(f) after the words ("Original Requests"):

> and only if the conditions in 10.4(d) have been satisfied.

Qualification of clause 10.5(c)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(c) after the words 'clause 8.1 will apply':

> at the close of the period referred to in 10.5(d).

Clarification of clause 10.5(f)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(f) after the words 'Spare Capacity':

> pursuant to the alternative dispute resolution process

Clarification of clause 10.5(h)

For the access arrangement to be approved, the Commission requires Epic to add the following to clause 10.5(h) after the words 'Spare Capacity':

> pursuant to the arbitration process

There is currently an access dispute being undertaken under the NGPAA 1995. The South Australian legislation was repealed by the National Gas Access Regime but

continues to apply until an access arrangement is approved under the Code. As the arbitration process commenced prior to an access arrangement being approved, the arbitration may be continued after an access arrangement is approved. It appears likely that the process will continue after a final decision is made. As such, provision must be made for Epic to be able to allocate capacity according to the outcome of the current dispute without having to undertake the procedure set out in proposed amendment FDA3.36.

Amendment FDA3.36

For the access arrangement to be approved, the Commission requires Epic to add the following after clause 10.4(e) of Epic's proposal of 29 August 2001:

> Notwithstanding the above, the Service Provider must allocate capacity in accordance with a dispute resolution process undertaken under the *National Gas Pipelines Access Act (South Australia) 1995* and is not required to conduct an open season before contracting for that capacity.

3.7 Review and expiry of the access arrangement

3.7.1 Code requirements

Section 3.17 of the Code requires an access arrangement to include a date upon which the service provider must submit to the regulator a revised access arrangement (revisions submission date) and a date upon which the revisions are intended to commence (revisions commencement date).

In deciding whether these two dates are appropriate, the regulator must have regard to the objectives contained in section 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 oblige the service provider to submit revisions before the revisions submission date (section 3.17(ii)).

An access arrangement period accepted by the regulator may be of any duration. However, if the period is greater 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, subsequently prove to be incorrect (section 3.18 of the Code). The Code provides examples of such mechanisms for guidance. Thus a regulator could consider triggers for early submission of revisions based on:

- divergence of the service provider's profitability or the value of services reserved in contracts from a specified range; or
- changes to the type or mix of services provided.

Finally, the revisions commencement date is not a fixed date. The date is subject to variation at the time the regulator approves the revisions pursuant to section 2.48 of the Code. This section states in part:

> Subject to the Gas Pipelines Access Law, revisions to an Access Arrangement come into effect on the date specified by the Relevant Regulator in its decision to approve the revisions (which date must not be earlier than either a date 14 days after the day the decision was made or ... the Revisions Commencement Date).

3.7.2 Epic's proposal

Clause 1.2 proposes that Epic submit revisions to the access arrangement to the regulator on 1 July 2005. Under clause 1.3, these revisions are expected to commence on 1 January 2006.

3.7.3 Commission's Draft Decision

In its *Draft Decision*, the Commission required Epic (at A3.35) to amend the revisions submissions date in clause 1.2 from 1 July 2003 to 1 July 2005. Epic has complied with this proposed amendment.

Proposed amendment A3.35 also required Epic to amend the Revisions Commencement Date in clause 1.3 from 1 January 2004 to 1 January 2006. Epic has complied with the proposed amendment.

3.7.4 Submissions by interested parties and Epic's response

In relation to the proposed commencement and review provisions contained in clause 1 of the access arrangement, Origin made the following comments:

- currently, there is minimal firm capacity available on the MAPS, and the majority of services are available on an interruptible basis;[486] however, this will not be the case from 1 January 2006;[487]
- when users negotiate haulage agreements with Epic for post 2006 in 2004 and 2005, they should be aware of the terms and conditions of the access arrangement;[488]
- accordingly, the revisions submissions date should be brought forward to 1 January 2004;[489]
- revisions should be finalised by 1 January 2005, and should commence operation on 1 January 2006.[490]

In response, Epic submitted that it saw no need for an early review of its access arrangement. It noted that Origin's suggestion that the revisions submissions date be brought forward is inconsistent with Origin's suggestion at that the drafting of terms and conditions should not be left until the next revision of the access arrangement.[491]

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486 Origin submission 21 September 2000, p. 4 at 2.1.2.
487 Origin submission 21 September 2000, p. 4 at 2.1.3.
488 Origin submission 21 September 2000, p. 5 at 2.1.4.
489 Origin submission 21 September 2000, p. 4 at 2.1.
490 Origin submission 21 September 2000, p. 4 at 2.1.1.
491 Epic's response to Origin's submission 31 October 2000, p. 1 at 2.1.

3.7.5 Commission's considerations

The Commission considers that the revisions commencement date is acceptable. The Commission considers that potential users will have an adequate basis upon which to negotiate Services with Epic prior to 1 January 2006. The Commission notes in this regard TGT's submission that capacity on the MAPS beyond 2001 will be resolved under State legislation.[492] The Commission also maintains the view it expressed in its *Draft Decision* that it is reasonable to terminate the access arrangement period when the existing haulage agreements terminate.

Review trigger

In relation to the issue of a trigger mechanism, the Commission notes that the proposal did not attract significant support from interested parties, some of whom expressed hostility to the concept. It appears that inserting a trigger mechanism into the access arrangement would not provide adequate certainty to users or potential users as to the tariffs that would apply if the access arrangement were opened under the trigger. As noted in section 3.1.6 of the *Final Decision*, it appears that the insertion of a review trigger would not meet the Commission's intended objectives in this case.

Accordingly, the Commission does not propose to require Epic to insert a trigger mechanism into the access arrangement nor to comply with the *Draft Decision's* proposed amendment A3.36.

In its *Draft Decision* at A3.36, the Commission required Epic to define specific major events that would trigger an obligation on the service provider to submit revisions prior to the revisions submission date.

This contrasts with some Queensland pipelines which are being required to specify major events that would trigger a review of the non-tariff aspects of their access arrangement. This is because the derogated access arrangement period for these pipelines is significantly longer than usual - between 15 and 22 years. In contrast, the Roma to Brisbane pipeline has a derogated access arrange period of only 5 years.

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[492] TGT response to issues paper on revised access arrangement, July 2001, p. 5.

4. Information provision and performance indicators

4.1 Information provision

4.1.1 Code requirements

The service provider's access arrangement information must contain sufficient information in the opinion of the relevant regulator to:

- enable users and prospective users to understand the derivation of the elements in the proposed access arrangement described in sections 3.1 to 3.20 of the Code; and
- form an opinion as to the compliance of the access arrangement with the provisions of the Code (section 2.6).

According to section 2.7 of the Code, the access arrangement information provided may include any relevant information, but must at least contain the categories of information described in Attachment A to the Code, which is summarised in Figure 4.1 below.

Figure 4.1: Summary of Attachment A information

The information required is divided into six categories:

Category 1: access and pricing principles

Tariff determination methodology; cost allocation approach; and incentive structures.

Category 2: capital costs

Asset values and valuation methodology; depreciation and asset life; committed capital works and planned capital investment (including justification for); rates of return on equity and debt; and debt/equity ratio assumed.

Category 3: operations and maintenance costs

Fixed *versus* variable costs; cost of services by others; cost allocations, for example, between pricing zones, and cost categories.

Category 4: overheads and marketing costs

Costs at corporate level; allocation of costs between regulated and unregulated segments; cost allocations between pricing zones, services or categories of asset.

Category 5: system capacity and volume assumptions

Description of system capabilities; map of piping system; average and peak demand; existing and expected future volumes; system load profiles and customer numbers.

Category 6: key performance indicators

Indicators used to justify 'reasonably incurred' costs

Under section 2.8 of the Code, information included in the access arrangement information may be categorised or aggregated. The extent to which it may be categorised or aggregated is that which is necessary to ensure that disclosure of the information is, in the opinion of the relevant regulator, not unduly harmful to the legitimate business interests of the service provider, a user or prospective user.

If the relevant regulator is not satisfied that the access arrangement information meets the requirements of the Code, it may require the service provider to make changes to the access arrangement information. Likewise, if requested to do so by any person, the relevant regulator must review the adequacy of the access arrangement information. However, the relevant regulator must not require the inclusion of material the release of which, in the regulator's opinion, could be unduly harmful to the legitimate business interests of the service provider or of a user or prospective user (section 2.9).

If the relevant regulator requires the service provider to change the access arrangement information, it must specify the reasons for its decision and allow the service provider reasonable time to make the changes and to resubmit the access arrangement information.

This chapter relates specifically to access arrangement information provided for users and prospective users. The regulator also has wider information-gathering powers under the GPAL. That Law gives the regulator power to require a person to give the regulator information or a copy of a document.[493] The power can be exercised if the regulator has reason to believe that a person has information or a document that may assist the regulator in the performance of any of the regulator's prescribed duties under the Law. Section 2.8 of the Code states that nothing in that section limits the regulator's power under the Law to obtain information, including information in an uncategorised or unaggregated form. The Code and the Law place separate limitations on the regulator's discretion to disclose information received that has been identified as being of a 'confidential or commercially sensitive nature'.[494]

These statutory powers aside, the Commission values the co-operation of the service provider and other interested parties in making information available in response to the numerous queries that inevitably arise in considering complex matters.

4.1.2 Epic's proposal

Epic submitted access arrangement information in conjunction with the access arrangement on 1 April 1999. The Commission has made both documents available on-line on the Commission's website. A copy was provided to the Code Registrar and the documents have been available in hard copy in response to any requests by interested parties. Details were included, where appropriate, in the Commission's *Issues Paper* of September 1999 and relevant extracts are reproduced in this *Final Decision*.

Epic corrected some parts of the access arrangement information in later correspondence with the Commission. Following the release of the *Draft Decision* on 16 August 2000, Epic submitted a consolidated corrected version of the access arrangement. This was also made available on the Commission's website.[495]

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[493] *Gas Pipelines Access (South Australia) Law,* section 41.
[494] Code, sections 7.11 and 7.12 and *Gas Pipelines Access (South Australia) Law,* section 42.
[495] This document was lodged on 29 August 2000 and largely represents Epic's position prior to the *Draft Decision* document.

In response to the *Draft Decision* and submissions from interested parties, Epic Energy proposed several substantial amendments to its access arrangement. Given the significance of the proposed amendments, Epic submitted a revised access arrangement to the Commission on 17 May 2001 and a subsequent revised access arrangement version 29 June 2001. This is also available on the Commission's website.

4.1.3 Commission's *Draft Decision*

The Commission stated in the *Draft Decision* that there is sufficient information in the access arrangement information to enable users and prospective users to understand the derivation of the elements in the proposed access arrangement. There is also sufficient information to enable them to form an opinion as to the compliance of the access arrangement with the provisions of the Code. Furthermore, the access arrangement information includes the information described in Attachment A of the Code.

4.1.4 Submissions from interested parties

There were no submissions on this issue.

4.1.5 Commission's considerations

The Commission is satisfied that there is sufficient information in the access arrangement information and the public domain to enable users and prospective users to understand the derivation of the elements in the original access arrangement. There is also sufficient information to enable them to form an opinion as to the compliance of the original access arrangement with the provisions of the Code.

However, changes set out in Epic's revised access arrangement (version 29 June 2001) and specified in this *Final Decision* will result in a need for further revisions to the access arrangement information. In particular, the AAI will need to be updated to account for the expansion of the pipeline system undertaken for Pelican Point Power and to account for revisions to the term of the access arrangement.

The Commission therefore requires Epic to comply with proposed amendment FDA4.1.

Proposed amendment FDA4.1

For the access arrangement to be approved, the Commission requires Epic to revise the access arrangement information so that it is consistent with the latest revised access arrangement (version 29 June 2001) and the amendments specified in this *Final Decision*.

4.2 Key performance indicators

4.2.1 Code requirements

Category 6 of Attachment A to the Code includes key performance indicators (KPIs) in the ambit of access arrangement information. The KPIs given as examples are:

- 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.

Section 8.6 of the Code allows the regulator to 'have regard to any financial and operational performance indicators it considers relevant in order to determine the level of costs within the range of feasible outcomes under section 8.4 that is most consistent with the objectives contained in section 8.1'. The regulator must then identify the indicators and provide an explanation of how they have been taken into account (section 8.7 of the Code).

4.2.2 Epic's proposal

Epic suggested that there are two distinct potential roles for KPIs and benchmarks:

- to establish service standards or monitoring arrangements to ensure that the quality of service provision does not decline within a price control period (typically 5 years); and
- to help determine the efficient level of operating costs that should be included in the 5-year price control mechanism.

Epic submitted that there are no useful comparators in Australia at this time, and therefore did not seek to use KPI data in setting or justifying the proposed reference tariffs.[496] Epic submitted that there are too many differences of a geographic, historic, political, operational and physical nature in the Australian pipeline sector, to permit benchmarks to be used to set the level of allowable costs. Rather, Epic put the view that quality of service indicators may provide some future comparison of the service performance of pipelines in Australia.[497] Further, Epic submitted that Category 6 of Attachment A to the Code should be modified to enable pipelines to develop quality of service standards and supporting measurement data.[498]

Despite Epic's view that KPIs are of limited use, Epic did provide a simplified comparison of gas haulage charges in 1997 across a range of transmission pipelines in Australia. Epic noted that, despite its pipeline being fully compressed, it still held a very competitive position.[499]

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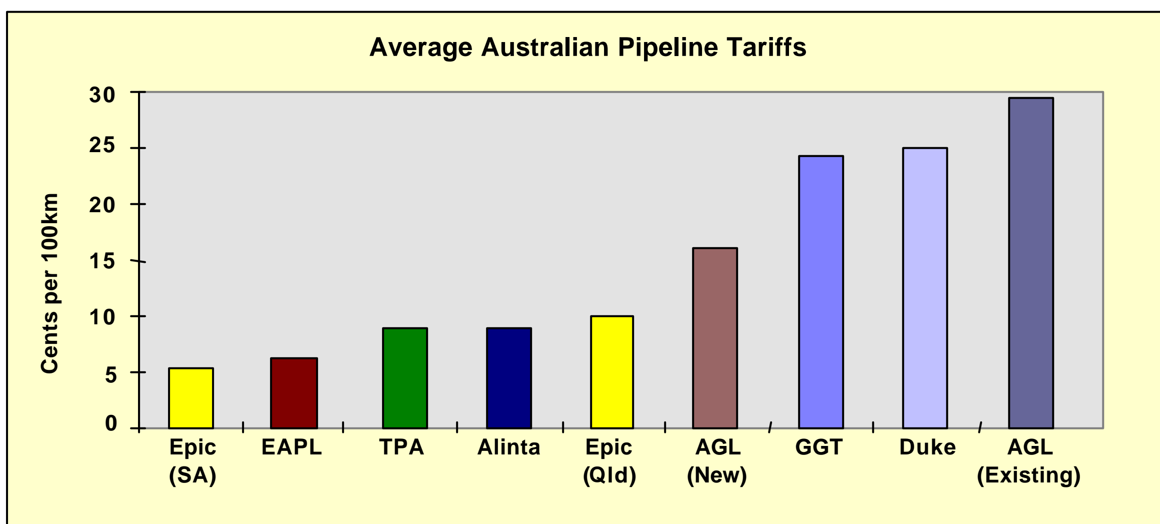
[496] Access arrangement information, p. 14.
[497] Access arrangement information, p. 15.
[498] Access arrangement information, p. 15.
[499] Access arrangement information, p. 16.

Figure 4.2: Average Australian Pipeline Tariffs



Service standards

Epic submitted that service factors are more relevant when comparing key performance indicators across a range of pipelines. Table 4.1 compares Epic's performance with that of PASA, its predecessor as owner and operator of the MAPS.

Table 4.1: Service standards

Item	PASA				Epic		
	1979/80	**1984/85**	**1989/90**	**1994/95**	**1996**	**1997**	**1998**
No. employees (total SA)	127.0	188.0	193.0	127.6	109.8	103.9	97.8
Pipe operated (total SA, km)	919.0	1593.0	1739.0	2039.0	2039.0	2039.0	2040.0
Km pipe/employee	7.2	8.5	9.0	16.0	18.6	19.6	20.9
LTIs [(a)] (total SA)	n/a	18	13	2	2	0	0
GUF [(b)]	-1.02%	-0.33%	-0.73%	-0.28%	-0.03%	+0.11%	+0.01%
Load factor [(c)]	1.21	1.25	1.39	1.41	1.72	1.53	1.76
No. of restrictions (Gas not delivered, GJ)	47	234	7	4.5	0	0	0

Source: MAPS access arrangement information, p. 16.

Notes:

(a) LTI = Lost Time Injury.
(b) GUF = gas unaccounted for. A (+ ve) sign means that Delivery Point measurement exceeds Receipt Point measurement.
(c) Peak Day ÷ Average Day.

Epic also provided the following information relating to its historical use of gas in operations. This shows a decline in unaccounted-for gas (UAG) between 1996 and 1998.

Table 4.2: System use gas

	1996	1997	1998
Fuel gas (TJ's)	874.317	1,021.126	1,262.013
Other measured (venting, etc) (TJ)	86.906	95.350	79.060
Total fuel gas (TJ)	961.223	1,116.476	1,341.073
Gas unaccounted for	25.186	(82.784)	(7.835)
Total gas used (TJ)	**986.409**	**1,033.692**	**1,333.238**
Total cost (financial accounts)	**$2,478,000**	**$2,602,000**	**$3,261,000**

Source: MAPS access arrangement information, p. 17.

4.2.3 Commission's Draft Decision

The Commission stated in the *Draft Decision* that it recognises the limitations of KPI information noted by Epic, but considers the information can still provide a useful guide in benchmarking operating performance across pipelines. The Commission welcomes Epic's contribution to the available body of benchmarking information, and its views on the importance of service standard comparisons.

The issue of service standards is discussed in some detail in the Commission's *Draft Regulatory Principles*.[500] Submissions received in response to the Commission's 'Regulation of Transmission Revenues' *Issues Paper*[501] revealed support for explicit service standards to be developed, although there is less consensus on how to actually determine appropriate service standards and at what level or levels service standards should be set. The Commission does have concerns about undertaking what could be seen as 'technical regulation' rather than economic regulation, and does not consider it appropriate for it to solely determine the service standards that must apply to service providers, either individually or collectively. However, it is the Commission's preference that all interested parties have the opportunity to provide input to any service standards proposed by a service provider to apply for the duration of the regulatory period.

In addition to the KPI information provided by Epic, the Commission considered cost per pipeline length. This is a well-known industry-accepted benchmark for operating and maintenance costs.

This indicator was compared across several pipelines and the results are summarised in Table 2.16 of this *Final Decision*. The relatively high figure shown for the MAPS is to some extent (as TGT submitted) associated with Epic's comparatively large number of compressor stations.

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[500] ACCC, *Draft Statement of Principles for the Regulation of Transmission Revenues,* 27 May 1999, p. 98.

[501] ACCC, 'Regulation of Transmission Revenues', *Issues Paper*, May 1998.

Therefore, the Commission considered forecast operating costs as a percentage of overall capital costs employed.[502] As noted in section 2.6.4, this result typically ranges from 2 per cent for an uncompressed pipeline to 5 per cent for a fully compressed pipeline. In Epic's case forecast operating costs are approximately 2.5 per cent of the ORC value calculated by the Commission.

Overall, the Commission considers Epic's operating costs to be within acceptable limits. However, the Commission will consider whether the level of operating costs continues to be appropriate at the commencement of the next regulatory review.

4.3 Financial indicator analysis

The Commission stated in the *Draft Regulatory Principles* that financial indicator analysis can provide the Commission with a means of assessing the likely impact of its decisions on the financial standing of regulated business.[503] That is, it can provide a useful check on the reasonableness of its regulatory decisions.

Financial indicators developed by credit rating agencies for analysing company financial risk include:

- funds flow net interest cover;
- net debt payback period;
- total debt/total capital; and
- internal financing.

Other financial indicators are also used to assist in analysing company profitability, cash flow protection and capital structure.

For such analysis to be effective, the Commission would require:

- accurate demand and cost projections;
- assumptions of the firm's financial and dividend policies, including gearing ratio and dividend payments; and
- a set of comparable benchmarks.[504]

The Commission has not at this stage undertaken an analysis of the likely impact of this *Final Decision* on Epic's financial indicators. Epic's revenues over the access arrangement period are determined almost entirely by existing contracts. Therefore, the Commission considers that the *Final Decision* will have very little impact on Epic's financial indicators.

In the *Draft Decision* the Commission invited submissions from Epic and other interested parties, as to whether the Commission should consider undertaking this

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[502] In the interests of comparison between pipeline systems, the ORC figure may be used as a measure of the value of the capital assets employed.

[503] ACCC, Statement of Principles for the Regulation of Transmission Revenues, 27 May 1999, p. 107.

[504] In previous decisions, the Commission has utilised benchmark data published by reputable credit rating agencies, such as Standard and Poors.

analysis prior to the release of the *Final Decision*. There were no submissions on this matter.

5. *Final decision*

Pursuant to section 2.16(b)(ii) of the Code, the Commission does not approve in its present form Epic's proposed access arrangement for the Moomba to Adelaide Pipeline System.

Pursuant to section 2.16(b)(ii) of the Code, the Commission requires Epic to resubmit a revised access arrangement by 30 November 2001.

The amendments (or, as appropriate, the nature of amendments) that would have to be made in order for the Commission to approve the proposed access arrangement are recorded in this *Final Decision*.

As stated in chapter 1, this document sets out the Commission's *Final Decision* on the revised access arrangement (version 29 June 2001). It does not address those provisions of the original access arrangement that have since been superseded or withdrawn.

Australian Competition and Consumer Commission

Annexure 1

Submissions received by Commission in response to *Issues Paper* (6 September 1999)

Note: In some cases, additional information has been provided to the Commission on a confidential basis.

Interest	Abbreviation	Date of Document
Regulator, Office of Energy Policy	OEP	7 October 99
Osborne Cogeneration Pty Ltd	Osborne	7 October 99
The Australian Gas Light Company	AGL	7 October 99
Boral Energy Holdings Limited	Boral	12 October 99
NAdb Energy Services Pty Ltd	NAdb	13 October 99
Santos Limited	Santos	15 October 99
United Energy	UE	18 October 99
S.A. Gas & Electricity Users Group	SAGEUG	18 October 99
Deputy Premier and Minister for Primary Industries, Natural Resources and Regional Development, SA – submission by Primary Industries and Resources SA	PIRSA	19 October 99
TXU Trading	TXU	20 October 99
ETSA Power Pty Ltd	ETSA	25 October 99
AGL Energy Sales & Marketing Limited	AGLES&M	25 October 99
Terra Gas Trader Pty Ltd	TGT	26 October 99

Submissions received by Commission in response to *Draft Decision* (16 August 2000)

Note: In some cases, additional information has been provided to the Commission on a confidential basis.

Interest	Abbreviation	Date of Document
AGL South Australia Pty Limited	AGL SA	12 September 2000
Western Mining Corporation Limited	WMC	25 August 2000
Terra Gas Trader Limited	TGT	18 September 2000
SAMAG Limited	SAMAG	18 September 2000
South Australian Gas & Electricity Users Groups	SAGEUG	12 September 2000
Hon. Wayne Matthew MP Minister for Minerals and Energy Minister Assisting the Deputy Premier	SA Government	8 September 2000
Origin Energy Retail Limited	Origin	21 September 2000
Santos Limited	Santos	18 September 2000
The Australian Gas Users Group	AGUG	21 September 2000
South Australian Department of Industry and Trade	DIT	13 November 2000

Submissions received by Commission in response to *Issues Paper* (25 May 2001)

Note: In some cases, additional information has been provided to the Commission on a confidential basis.

Interest	Abbreviation	Date of Document
AGL Energy Sales & Marketing Limited	AGLES&M	29 June 2001
Energy South Australian (South Australian Government)	Energy SA	29 June 2001
Epic Energy South Australia Limited	Epic	29 June 2001
NRG Flinders Limited	NRG Flinders	29 June 2001
Origin Energy Retail Limited	Origin	11 July 2001
Potential Energy Pty Limited	Potential Energy	29 June 2001
South Australian Gas & Electricity Users Groups	SAGEUG	12 July 2001
Santos Limited	Santos	12 July 2001

Public version of Annexure 2

Assessment of stranding risk for the MAPS

The content of the substantive annexure is confidential to Epic Energy South Australia Pty Limited.