



**FINAL DECISION:
ACCESS ARRANGEMENT
PARMELIA PIPELINE**

Submitted by

CMS Gas Transmission of Australia

Part B

Supporting Information

**INDEPENDENT GAS PIPELINES ACCESS REGULATOR
WESTERN AUSTRALIA**

20 October 2000



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GLOSSARY

Terms used in this Final Decision have the meanings ascribed to them under the *Gas Pipelines Access Act 1997* or under the Access Arrangement for the Parmelia Pipeline as submitted to the Regulator by CMS Gas Transmission of Australia. Readers should refer to these documents for definitions of specific terms. In order to assist understanding, summary definitions of several terms used widely in this Final Decision are provided below.

Access Arrangement	A statement of policies and the basic terms and conditions that apply to third party access to a covered pipeline.
Access Arrangement Information	Additional and/or supplemental information pertaining to the Access Arrangement.
Access Request	A request for access to a Service made in accordance with the Access Arrangement.
Arbitrator	The Office of the Western Australian Gas Disputes Arbitrator appointed under section 62 and, except in sections 62(2), 65 and 69(1), includes a person acting under section 71 of the <i>Gas Pipelines Access (WA) Act 1998</i> .
Bare Transfers	A transfer by a User of all or part of its contracted capacity on a pipeline without the consent of the Service Provider and without any change in the contractual arrangements between the User and the Service Provider.
Capacity	The potential of a pipeline, as currently configured and operated in a prudent manner consistent with good pipeline industry practice, to transport gas at given receipt and delivery conditions.
Capacity Reservation Charge	The charge paid by a User to a Service Provider in respect of a contract for gas transportation, that is a fixed charge independent of the quantity of gas actually transported.
Capital Expenditure	Expenditure on a Covered Pipeline and associated regulated assets to be incorporated into the Capital Base of the pipeline.
Code	The <i>National Third Party Access Code for Natural Gas Pipeline Systems</i> .
Consent Transfers	A transfer by a User of all or part of its contracted capacity on a pipeline where the transfer is subject to the consent of the Service Provider.
Contracted Capacity	The nominal quantity of gas transportation to be undertaken under a service agreement between a User and the Service Provider.
Covered Pipeline	The whole or particular part of a pipeline which is regulated under the Code.

Delivery Point	A point of a pipeline at which the custody of gas is transferred from a Service Provider to a User.
Depreciated Actual Cost	The value that would result from taking the actual capital cost of the Covered Pipeline and subtracting the accumulated depreciation for those assets charged to Users (or thought to have been charged to Users) prior to the commencement of the Code.
Depreciated Optimised Replacement Cost	Is the depreciated minimum cost of replacing or replicating the service potential embodied in a pipeline with modern equipment and in the most efficient way practicable, from an engineering perspective, given the service requirements, the age and condition of the existing assets and replacement in the normal course of business.
Extensions/ Expansions Policy	A policy that is required to be in the Access Arrangement which sets out a method for determining whether extension or expansion to the Covered Pipeline is or is not to be treated as part of the Covered Pipeline for the purposes of the Code.
Gas Day	For the Parmelia Pipeline, a period of 24 consecutive hours beginning and ending at 0800 Australian Western Standard Time.
Grandfathered Contract	A contract for the provision of gas transportation services by CMS, whether or not in conjunction with other services, entered into before the latest date for complying with the ring fencing provisions of the Code.
National Gas Pipelines Access Agreement	A national agreement endorsed by CoAG and signed by all Australian Heads of Government on 7 November 1997 to introduce a national gas pipelines access regime.
New Facilities Investment	An increase in the Capital Base of the pipeline after the commencement of a new Access Arrangement Period to reflect additional capital costs incurred in modifying or adding to existing assets for the purpose of providing services.
Non-Reference Services	A service other than a Reference Service, but not including services provided under a Grandfathered Contract.
Operating Expenditure	The non-capital costs incurred by a Service Provider in operating, maintaining and delivering services.
Optimised Deprival Value	A valuation of an asset based on the cost that would be incurred by the owner of the asset if deprived of the asset. This may be calculated in several ways. For the purposes of this Final Decision, the Optimised Deprival Value is defined as the lesser of the Optimised Replacement Cost of an asset and the valuation of the asset in terms of the net present value of financial returns to the asset (on a cash flow basis).
Optimised Replacement Cost	Is the minimum cost of replacing or replicating the service potential of a service with modern equipment and in the most efficient way practicable, from an engineering perspective, given the service requirements.

Parmelia Pipeline	The pipeline system that is the subject of Pipeline Licenses PL1, PL2, PL3, PL5 and PL23 issued under the <i>Petroleum Pipelines Act 1969 (WA)</i> .
Prospective User	A person who seeks or who is reasonably likely to seek to enter into a Service Agreement with a Service Provider and includes a User who seeks or may seek to enter into a Service Agreement for an additional Service.
Queuing Policy	A policy that is required to be included in an Access Arrangement which defines the priority that a Prospective User has over another Prospective User to negotiate for specific Capacity.
Receipt Point	A point of a pipeline at which the custody or ownership of gas is transferred to the Service Provider.
Reference Services	A Service that is specified as a Reference Service in an Access Arrangement.
Reference Tariff	A tariff specified in an Access Arrangement as corresponding to a Reference Service.
Regulator	Independent Gas Pipelines Access Regulator in Western Australia established under the <i>Gas Pipelines Access (WA) Act 1998</i> .
Residual Value	The value of the Capital Base at the end of the Access Arrangement Period after allowing for Capital Expenditure, Redundant Capital and Depreciation during the Period.
Ring Fencing	A requirement on a Service Provider to establish arrangements to segregate or “ring fence” its business of providing Services using a covered pipeline from other business activities.
Service	A Reference Service or Non-Reference Service relating to the transportation of gas by a Service Provider, and in the case of a Service Agreement means the particular reference Service or Non-Reference Service the subject of that Service Agreement.
Service Agreement	An agreement between a Service Provider and a User for the provision of a Service.
Service Provider	In relation to a pipeline or proposed pipeline, means the person who is, or who is to be, the owner or operator of the whole or any part of the pipeline or proposed pipeline.
User	A person who has a current Service Agreement or an entitlement to a service as a result of arbitration under section 6 of the Code.

ABBREVIATIONS

AA	Access Arrangement
AAI	Access Arrangement Information
ACCC	Australian Competition and Consumer Commission
bp	Basis points – 1 bp equals 0.01 percentage points.
CMS	CMS Gas Transmission of Australia Pty Ltd
CoAG	Council of Australian Governments
CPI	Consumer Price Index
DAC	Depreciated Actual Cost
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DORC	Depreciated Optimised Replacement Cost
EAPL	East Australian Pipeline Limited
EPCM	Engineering, Procurement, Construction and Management
GJ	Gigajoules (10^9 joules)
GST	Goods and Services Tax
IPART	Independent Pricing And Regulatory Tribunal (New South Wales)
IRR	Internal Rate of Return
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
MAOP	Maximum Allowable Operating Pressure
MDQ	Maximum Daily Quantity
MFR	Maximum Flow Rate
MHQ	Maximum Hourly Quantity
MPa	Megapascal
NPV	Net Present Value
NWSG	North West Shelf Gas Pty Ltd

OffGAR	Office of Gas Access Regulation
Office of Energy	Office of Energy
ORC	Optimised Replacement Cost
ORG	Office of the Regulator General (Victoria)
PJ	Petajoules (10^{15} joules)
SCADA	Supervisory Control and Data Acquisition system
TLPG	Tempered Liquefied Petroleum Gas
TJ	Terajoules (10^{12} joules)
WACC	Weighted Average Cost of Capital
WAPET	Western Australian Petroleum Pty Ltd

1. INTRODUCTION

This Part B of the Final Decision provides background and supporting information to the Final Decision, outlined in Part A, on the Access Arrangement for the Parmelia Pipeline.

In preparing the Draft and Final Decisions, the Regulator assessed the Access Arrangement on the basis of three broad criteria:

- i. whether the Access Arrangement meets the requirements of sections 3.1 to 3.20 of the Code that explicitly state the matters that must be addressed in an Access Arrangement;
- ii. whether the proposed Reference Tariffs are consistent with the objectives of section 8 of the Code and were determined in accordance with the principles set out in section 8; and
- iii. for matters included in the Access Arrangement but are outside the scope of requirements set out in sections 3 or 8 of the Code, whether the inclusion and substance of these matters are reasonable having regard to the interests of the Service Provider, Users, Prospective Users and the general public as provided for in section 2.24 of the Code.

This supporting information is generally organised such that matters relevant to assessment of the Access Arrangement are addressed in the same sequence as in the Code. There are however several areas of overlap and cross-reference between different parts of the Code that result in this sequence not being able to be strictly adhered to while avoiding excessive repetition. The supporting information is thus structured as follows.

- The process for assessment of an Access Arrangement, and in particular the Access Arrangement for the Parmelia Pipeline.
- Assessment of matters addressed by the Access Arrangement other than those that relate to tariffs, fees and charges (non-tariff matters).
- Assessment of Reference Tariffs proposed by CMS for the Parmelia Pipeline.
- Assessment of fees and charges, other than tariffs, proposed by CMS for the Parmelia Pipeline.
- Responses to any additional matters that were raised in public submissions.

2. ASSESSMENT PROCESS

2.1 OVERVIEW

Where a pipeline is covered by the Code there is a requirement for a pipeline Service Provider to establish an Access Arrangement. The Regulator may approve an Access Arrangement only if it satisfies the minimum requirements set out in section 3 of the Code. The Regulator must not refuse to approve an Access Arrangement solely for the reason that the proposed Access Arrangement does not address a matter that section 3 does not require an Access Arrangement to address. Subject to this limitation, the Regulator has a broad discretion to refuse to accept an Access Arrangement.

An Access Arrangement submitted to the Regulator for approval must be accompanied by specified Access Arrangement Information, which should enable Users and Prospective Users to understand the derivation of the elements of the proposed Access Arrangement and form an opinion as to the compliance of the Access Arrangement with the Code.

The process by which an Access Arrangement is assessed and approved can be summarised as follows.

- The Service Provider submits a proposed Access Arrangement, together with the Access Arrangement Information, to the Regulator.
- The Regulator may require the Service Provider to amend and resubmit the Access Arrangement Information.
- The Regulator publishes a public notice and seeks submissions on the application.
- The Regulator considers the submissions, issues a Draft Decision and then, after considering any submissions received on the Draft Decision, makes a Final Decision which either:
 - approves the proposed Access Arrangement; or
 - does not approve the proposed Access Arrangement and states the revisions to the Access Arrangement which would be required before the Regulator would approve it; or approves a revised Access Arrangement submitted by the Service Provider which incorporates amendments specified by the Regulator in its Draft Decision.
- If the Regulator does not approve the Access Arrangement, the Service Provider may propose an amended Access Arrangement, which incorporates the revisions required by the Regulator.
- If the Regulator does not approve the Access Arrangement and the Service Provider does not propose an amended Access Arrangement, the Regulator can impose an Access Arrangement.

The *Gas Pipeline Access (WA) Law* provides a mechanism for the review of a decision by the Regulator to impose an Access Arrangement.

The particular components of the assessment process for the Access Arrangement submitted for the Parmelia Pipeline are described below.

2.2 SUBMISSION OF THE ACCESS ARRANGEMENT AND SUPPORTING INFORMATION

CMS submitted an Access Arrangement for the Parmelia Pipeline to the Regulator on 7 May 1999. The documentation submitted to the Regulator was as follows.

- Parmelia Pipeline Access Arrangement, incorporating General Terms and Conditions (as Appendix 3 of the Access Arrangement).
- Parmelia Pipeline Access Arrangement Information.

Further documentation forming part of the Access Arrangement was subsequently submitted to the Regulator, as follows.

- Parmelia Pipeline Access Arrangement Information: Additional Information (21 June 1999).
- Parmelia Pipeline Access Arrangement Information: Additional Information (30 June 1999).

Copies of these documents are available from the Office of Gas Access Regulation or may be downloaded from the OffGAR web site (www.offgar.wa.gov.au).

2.3 FIRST-ROUND PUBLIC CONSULTATION

OffGAR undertook the following actions to provide public notification of receipt of the Access Arrangement and invite submissions from interested parties.

- Forwarding of notices to 241 interested parties (12 May 1999).
- Placing of the notice calling for submissions on the OffGAR web site (15 May 1999).
- Placing of advertisements calling for public submissions in *The West Australian* and the *Weekend Australian* (15 May 1999).

An issues paper was prepared by OffGAR and sent to interested parties on 20 May 1999. The issues paper was also made available from the OffGAR office and the OffGAR web site. A closing date for receipt of public submissions was set at 4pm 14 June 1999. Two extensions to this closing date were subsequently made through notices placed on the OffGAR web site, with extensions made to 4pm 5 July 1999 and to 4pm 9 July 1999.

Documentation submitted by CMS for the proposed Access Arrangement was made available from the OffGAR office and on the OffGAR web site.

Submissions were received from the following parties.

- AlintaGas (5 July 1999)
- Boral Energy (5 July 1999)

- CMS Gas Transmission of Australia (30 June 1999)
- Combustion Air Pty Ltd (9 June 1999)
- Mobil Exploration & Producing Australia Pty Ltd (14 June 1999)
- North West Shelf Gas (1 July 1999)
- Office of Energy – Western Australia (two submissions) (14 June 1999; 8 July 1999)
- Phoenix Energy Pty Ltd (14 June 1999)
- Western Power (11 June 1999)
- Treasury Department – Western Australia (9 July 1999)

These submissions were made publicly available via the *OffGAR* web site. The contents of submissions as they relate to particular aspects of the Access Arrangement were taken into account by the Regulator in preparing the Draft Decision.

2.4 DRAFT DECISION

The Regulator issued a Draft Decision on the Access Arrangement on 27 October 1999. The Draft Decision indicated 41 amendments that would be required to be made to the Access Arrangement before the Regulator will approve it.

The Draft Decision provides an opportunity for a Service Provider to make amendments to its Access Arrangement deemed necessary by the Regulator prior to a Final Decision on acceptance or rejection of the Access Arrangement. Publication of the Draft Decision also provides an opportunity for the Service Provider and other interested parties to comment on the Regulator's assessment of the Access Arrangement.

2.5 SECOND-ROUND PUBLIC CONSULTATION

Public submissions were invited on the Draft Decision. In accordance with the requirements of Section 2.14 of the Code, a copy of the Draft Decision was provided to all persons that made a submission as part of the first round of public consultation. Copies of the document were made available from *OffGAR* and from the *OffGAR* web site. The closing date for receipt of submissions on the Draft Decision was 12 November 1999. An extension to this closing date were subsequently made to 25 November 1999.

Submissions were received from the following parties.

- AlintaGas (12 November 1999)
- Australian Pipeline Industry Association (25 November 1999)
- CMS Gas Transmission of Australia (25 November 1999)
- Combustion Air Pty Ltd (two submissions: 9 November 1999 and 24 November 1999)
- Egis Consulting (25 November 1999)

- Office of Energy (18 November 1999)
- Western Power (15 November 1999)

All of the above submissions have been placed, in full, on OffGAR's web site.

In addition to a public submission, CMS made further confidential submissions to the Regulator that addressed some of the required amendments to the Access Arrangement as prescribed in the Draft Decision.

Public consultation also occurred through a public forum held by the Regulator on 29 November 1999.

2.6 FINAL DECISION

This Final Decision is issued in accordance with the requirements of section 2.16 of the Code. Section 2.16 requires the Regulator, after consideration of submissions on the Draft Decision, to issue a Final Decision which:

- (a) approves the Access Arrangement; or
- (b) does not approve the Access Arrangement and states the amendments (or nature of the amendments) which would have to be made to the Access Arrangement in order for the Regulator to approve it and the date by which a revised Access Arrangement must be resubmitted by the Service Provider; or
- (c) approves a revised Access Arrangement submitted by the Service Provider which the Regulator is satisfied incorporates the amendments specified by the Regulator in the Draft Decision.

CMS did not submit a revised Access Arrangement to the Regulator prior to release of this Final Decision. Consequently the Final Decision of the Regulator to not approve the Access Arrangement is consistent with (b), above.

In accordance with requirements of section 2.17 of the Code, a copy of the Regulator's Final Decision will be provided to all persons that made a submission in respect of the Access Arrangement or Draft Decision, and copies will be made publicly available in hard-copy from OffGAR's web site. A copy will also be provided to the Code Registrar.

2.7 REVISION AND APPROVAL OF THE ACCESS ARRANGEMENT

If the Regulator does not approve an Access Arrangement and the Service Provider submits a revised Access Arrangement by the date specified by the Regulator under section 2.16(b) of the Code, which the Regulator is satisfied incorporates the amendments specified in the Final Decision, the Regulator will issue a further final decision that approves the revised Access Arrangement.

The Regulator has set a date of Monday 20 November 2000 by which CMS must submit a revised Access Arrangement that incorporates the amendments.

If CMS does not submit a revised Access Arrangement by the date specified by the Regulator under section 2.16(b) of the Code or submits a revised Access Arrangement which does not, to the Regulator's satisfaction, incorporate the amendments specified by the Regulator in its Final Decision, the Regulator may draft and approve its own Access Arrangement. This would be undertaken in accordance with requirements for public consultation set out in the Code in relation to the Regulator drafting and approving an Access Arrangement.

3. NON-TARIFF MATTERS

3.1 INTRODUCTION

An Access Arrangement must, as a minimum, include the elements described in section 3 of the Code. Section 3 establishes the following requirements.

- Services Policy (sections 3.1 and 3.2).

An Access Arrangement must include a policy on the services to be offered. The Services Policy must:

- include a description of one or more services which are to be offered;
- where reasonable and practical, allow Prospective Users to obtain a service that includes only those elements that the User wishes to be included in the service; and
- where reasonable and practical, allow Prospective Users to obtain a separate tariff in regard to a separate element of a service.

- Reference Tariffs and Reference Tariff Policy (sections 3.3 to 3.5).

An Access Arrangement must contain one or more Reference Tariffs. A Reference Tariff operates as a benchmark tariff for a specific service, in effect giving the User a right of access to the specific service at the Reference Tariff, and giving the Service Provider the right to levy the Reference Tariff for that service.

- Terms and Conditions (section 3.6).

An Access Arrangement must include the terms and conditions on which the Service Provider will supply each Reference Service.

- Capacity Management Policy (sections 3.7 and 3.8).

An Access Arrangement must state whether the covered pipeline is a Contract Carriage Pipeline or a Market Carriage Pipeline.

- Trading Policy (sections 3.9 to 3.11).

An Access Arrangement for a Contract Carriage Pipeline must include a policy on the trading of capacity.

- Queuing Policy (sections 3.12 to 3.15).

An Access Arrangement must include a policy for defining the priority that Prospective Users have to negotiate for specific Capacity (a Queuing Policy).

- Extensions/Expansions Policy (section 3.16).

An Access Arrangement must include a policy setting out a method for determining whether an extension or expansion to the covered pipeline/distribution system is or is not to be treated as part of the covered pipeline for the purposes of the Code.

- Review Date (sections 3.17 to 3.20).

An Access Arrangement must include a date on or by which revisions to the Access Arrangement must be submitted and a date on which the revised Access Arrangement is intended to commence.

With the exception of the requirements for Reference Tariffs and a Reference Tariff Policy, the compliance of the Access Arrangement with the above requirements of the Code is addressed below. Reference Tariffs are addressed separately in section 4 of this report.

3.2 SERVICES POLICY

3.2.1 Access Code Requirements

Section 3.1 of the Code requires that an Access Arrangement include a policy on the service or services to be offered (a Services Policy). Section 3.2 of the Code requires that the Services Policy comply with the following principles.

- (a) The Access Arrangement must include a description of one or more services that the Service Provider will make available to Users or Prospective Users, including:
 - (i) one or more services that are likely to be sought by a significant part of the market; and
 - (ii) any service or services which in the Regulator's opinion should be included in the Services Policy.
- (b) To the extent practicable and reasonable, a User or Prospective User must be able to obtain a service that includes only those elements that the User or Prospective User wishes to be included in the service.
- (c) To the extent practicable and reasonable, a Service Provider must provide a separate Tariff for an element of a service if this is requested by a User or Prospective User.

3.2.2 Access Arrangement Proposal

A Services Policy is provided in section 4 of the Access Arrangement which commits CMS to making available Reference Services to Prospective Users, and negotiating in good faith for the provision of Non-Reference Services to Prospective Users, subject to there being sufficient Spare Capacity in the Parmelia Pipeline.

Four types of Reference Services are specified in section 4 of the Access Arrangement and described in section 4 of the General Terms and Conditions. The Reference Services are described in terms of the duration of the supply period and continuity of supply, as follows.

- Firm Extended Service: a continuous service (under normal operating conditions) over a contract period of between 10 and 20 years.
- Interruptible Extended Service: a service that may be curtailed or interrupted at the discretion of CMS, over a contract period of between 10 and 20 years.
- Firm Spot Service: a continuous service (under normal operating conditions) over a contract period of one Gas Day.
- Interruptible Spot Service: a service that may be curtailed or interrupted at the discretion of CMS, over a contract period of one Gas Day.

All Reference Services relate to a single Receipt Point and a single Delivery Point. Quantities of gas receivable and deliverable as part of each Reference Service are defined as upper limits in terms of Maximum Daily Quantity (MDQ), Maximum Hourly Quantity (MHQ) and Maximum Flow Rate (MFR).

The only commitments made in the Access Arrangement for the provision of Non-Reference Services are for CMS to negotiate in good faith with Prospective Users for the provision of such services, having regard to applicable principles of the Reference Tariff Policy.

3.2.3 Draft Decision

The Regulator considered that the Reference Services proposed by CMS were in several respects inconsistent with the services commonly provided by pipeline operators and as such may not meet the criterion of being services that are likely to be sought by a significant part of the market. This was particularly the case in respect of minimum contract terms for extended services, and the restriction on Reference Services to single gas Receipt Points and Delivery Points. The Regulator also had concerns in regard to the ambiguity of provisions relating to Service Agreements for Spot Services and the discretionary powers of CMS to attach conditions to Service Agreements in addition to any conditions specified in the Access Arrangement.

The Access Arrangement was considered to not meet the requirements of the Code in respect of a Services Policy. Required amendments to the Access Arrangement were as follows.

Multiple Receipt Points and Delivery Points

Draft Decision Amendment 1

Section 4 of the General Terms and Conditions should be amended to make provision for Reference Services to accommodate multiple Receipt Points and Delivery Points in a single Service Agreement.

Contract Duration

Draft Decision Amendment 2

Section 4 of the General Terms and Conditions should be amended to make provision for minimum contract duration of no greater than one year for Firm Extended Services and Interruptible Extended Services.

Service Agreements for Spot Services

Draft Decision Amendment 3

Section 4 of the General Terms and Conditions should be amended to clarify that multiple purchases of Spot Services may be made under a single Service Agreement for Spot Services.

Attachment of Conditions to Service Agreements for Reference Services

Draft Decision Amendment 4

Section 7.1(c) and 7.2 of the Access Arrangement and section 2 of the General Terms and Conditions should be amended to state the conditions that may be attached to Service Agreements for provision of Reference Services and to remove discretionary powers of CMS to attach conditions to Service Agreements for provision of Reference Services, where such conditions are in addition to those provided for in the General Terms and Conditions.

3.2.4 Responses to Submissions on the Draft Decision

Multiple Receipt Points and Delivery Points

Draft Decision Amendment 1. Section 4 of the General Terms and Conditions should be amended to make provision for Reference Services to accommodate multiple Receipt Points and Delivery Points in a single Service Agreement.

- CMS

CMS agrees in principle with Draft Decision Amendment 1.

In the absence of substantive submissions on Draft Decision Amendment 1, the Regulator will maintain the requirement for this amendment of the Access Arrangement.

Contract Duration

Draft Decision Amendment 2. Section 4 of the General Terms and Conditions should be amended to make provision for minimum contract duration of no greater than one year for Firm Extended Services and Interruptible Extended Services.

- CMS

CMS submitted to the Regulator that a contract term of one year was unreasonably short for the following reasons:

- i. with a minimum contract period of only one year, competitors behaving as economic rational actors could sterilise capacity in the short term in order to win large, long term contracts;
- ii. short term users are almost certain to seek existing rather than undeveloped capacity, and it is unlikely that short term Users would be willing to make capital contributions to pipeline expansions; and
- iii. the needs of short term users could be met through the provision of spot services, and OffGAR's own load projection in the Draft Decision indicates that the Parmelia Pipeline will have spare capacity (for use in provision of spot services) at the end of the Access Arrangement Period.

In the Draft Decision,¹ the Regulator indicated that in considering possible durations of contracts with the Service Provider, a balance should be sought between the potentially contrary interests of the Service Provider and Users in seeking security in a contract and reducing risks of changing circumstances over a contract period. The Regulator indicated a view in the Draft Decision that the 10 year minimum contract duration for the Firm Extended Reference Service and the Firm Interruptible Reference Service is unreasonable and departs from a common industry practice of offering minimum contract durations of one year for gas transmission.

The Regulator does not consider that the arguments put forward by CMS justify a departure from common industry practice in respect of minimum contract periods. Firstly, there is no evidence to suggest that the operator of a competing pipeline would exploit the availability of short term contracts to sterilise capacity in the Parmelia Pipeline for reasons of longer term competitive advantage. Furthermore, should this occur, it would best be addressed in the first instance through trade practices legislation relating to anticompetitive behaviour. Secondly, the minimum duration of contracts is not expected to have any effect on the incentive of Users to make capital contributions to pipeline expansions. The existence of a minimum contract term of one year does not prevent a User from securing a longer term contract in order to gain security of access after making a capital contribution to pipeline expansion. Thirdly, the forecast existence of spare capacity in the pipeline and the consequent likely availability of spot services do not justify potentially reducing the attractiveness of Reference Services to Users.

The Regulator will therefore maintain the requirement for amendment of the Access Arrangement to provide for minimum contract duration of one year for the Firm Extended Reference Service and the Firm Interruptible Reference Service.

Since issue of the Draft Decision, the Regulator has also noted that the Access Arrangement does not make explicit provision for renewal or extension of Service Agreements. Section 3.7(b) of the General Terms and Conditions states that “any request to change the term [of a Service Agreement] must be made by an access request, and will be considered in accordance with the provisions of the Access Arrangement.” This implies that an application to change the term of a Service Agreement will be dealt with in accordance with the Queuing Policy, with the result that any priority to that application would be at the discretion of CMS. The Regulator is of the view that a Service Agreement for a Reference Service should be capable of including an option to extend the term of the Service Agreement for the capacity contracted in that agreement. The Regulator requires amendment of the Access Arrangement to make such provision.

Spot Services

Draft Decision Amendment 3. Section 4 of the General Terms and Conditions should be amended to clarify that multiple purchases of Spot Services may be made under a single Service Agreement for Spot Services.

- AlintaGas Trading

AlintaGas Trading suggests that it would be more appropriate to have a Reference Service whereby a User can contract with CMS for multiple purchases of Spot Services over a reasonable period of time.

¹ Draft Decision, Part B page 28

Entering into a new Spot Service agreement on each and every day that a Spot Service is required could become impractical. A longer duration Reference Service for Spot Services in the Access Arrangement would be more comforting for a Prospective User, rather than hoping that CMS's self-interest as a Service Provider will always prevail over CMS's interests as a marketer of gas.

- Western Power

These are Reference Services for which no explicit Reference Tariffs have been established; rather it has been accepted that a bidding process will set the tariffs. While supportive of a market driven pricing system for spot interruptible capacity, Western Power is concerned that CMS could set an unjustifiably high floor price, as has been the case with the DBNGP since January 1995. Western Power understands that under their proposal, CMS may set a minimum price for the service; rather than accepting that providing the service at marginal cost is a logical economic decision. CMS presumably may require some protection to avoid bids below its marginal cost (particularly given the likelihood of excess capacity). Nevertheless it would be highly desirable for OffGAR to set the minimum tariff, and in the absence of both a higher bid whenever unused reserved capacity is available, require CMS to transport the gas. Given OffGAR's assessment of the marginal cost of transport, Western Power considers a minimum spot price to be a key requirement for a Reference Service.

- CMS

CMS agrees in principle with Draft Decision Amendment 3.

The Regulator notes that the one day duration proposed by CMS for spot services is generally consistent with a design of spot services to utilise pipeline capacity that would become available on a day to day basis in a pipeline being operated at close to capacity. The Parmelia Pipeline is unlikely to be operated at close to capacity within the Access Arrangement Period, and hence spot services could be provided with a duration of greater than one day. However, placing an obligation on CMS to provide spot services with longer durations is not considered to be consistent with a reasonable balance of interests between a Service Provider, in respect of security of contract, and Users, in respect of ability to adjust contractual commitments to take into account changing circumstances of gas use. It is noted that the Regulator requires that the Access Arrangement be amended to provide for a minimum contract duration of one year for the extended services, and that there is scope for Users to obtain services with contract duration of periods between one day and one year as Non-Reference Services. The Regulator will therefore not require CMS to amend the Access Arrangement in respect of the duration of spot services.

In regard to the setting of tariffs for Spot Services, the Regulator maintains the view expressed in the Draft Decision that the setting of tariffs at marginal rates would be consistent with commercial incentives of CMS regardless of the level of market power held by CMS. In the absence of any information to the contrary, the Regulator considers it appropriate for the spot service tariffs to be determined by the bidding procedure proposed by CMS, without regulatory control of the floor price for these services. Moreover, the requirement to provide for capital redundancy in the event that throughput does not increase over the Access Arrangement Period, places a considerable incentive on the Service Provider to promote the use of the pipeline. The Regulator will therefore not require CMS to amend the Access Arrangement so as to establish a mandatory floor price for provision of spot services. The Regulator will, however, examine the operation of spot services and any floor prices set by CMS in any review of the Access Arrangement.

Attachment of Conditions to Service Agreements for Reference Services

Draft Decision Amendment 4. Section 7.1(c) and 7.2 of the Access Arrangement and section 2 of the General Terms and Conditions should be amended to state the conditions that may be

attached to Service Agreements for provision of Reference Services and to remove discretionary powers of CMS to attach conditions to Service Agreements for provision of Reference Services, where such conditions are in addition to those provided for in the General Terms and Conditions.

- CMS

CMS agrees in principle with Draft Decision Amendment 4.

In the absence of substantive submissions on Draft Decision Amendment 4, the Regulator will maintain the requirement for this amendment of the Access Arrangement.

Part-Haul Service

- Western Power

As noted in our previous submission, a key element missing from the Reference Services is the provision of part-haul tariffs. While it is correct that a part-haul tariff does not apply on the DBNGP for the equivalent sector, we view the key issue as being whether there is a significant proportion of users that may utilise a part haul option. If there is, then it is reasonable to seek to have a part-haul tariff provided as a Reference Tariff. If not, then it must be accepted that any part haul contract will be a Non-Reference Service and the tariff will be subject to negotiation.

In Western Power's view, consideration needs to be given to the potential for part-haul transport services over the duration of the proposed Access Arrangements for the Parmelia Pipeline.

For example, there are a number of gas customers that are supplied gas via the DBNGP, who are within close proximity to the Parmelia pipeline and have the potential for interconnection to alternative gas supply and transport options. A competitive part-haul Reference Service tariff could promote development of Perth Basin gas supplies, whilst increasing the throughput of the Parmelia Pipeline and revenue to CMS.

The Parmelia Pipeline is currently used to transport gas from production fields in the northern Perth basin to Delivery Points some 400 km south in the Perth metropolitan area and Pinjarra. There does not appear to be any prospect of demand for a gas transportation service other than, broadly speaking, between the two ends of the pipeline system. Given the locations of production fields and Delivery Points at approximate ends of the pipeline system, a distance-based or part-haul Reference Service or tariff structure may not result in material differences to the proposed flat-rate tariff structure nor have significant efficiency advantages over the proposed tariff. Given these factors, the Regulator does not consider that a part-haul tariff is likely to be required by a significant part of the market, nor has any other benefits that provide justification for requiring CMS to provide a part-haul service as a Reference Service. Should a Prospective User wish to negotiate a part-haul tariff, there is nothing preventing this occurring as a Non-Reference Service.

3.2.5 Required Amendments to the Access Arrangement

Multiple Receipt Points and Delivery Points

Amendment 1 (was Draft Decision Amendment 1)

Section 4 of the General Terms and Conditions should be amended to make provision for Reference Services to accommodate multiple Receipt Points and Delivery Points in a single Service Agreement.

Contract Duration

Amendment 2 (was Draft Decision Amendment 2)

Section 4 of the General Terms and Conditions should be amended to make provision for minimum contract duration of no greater than one year for Firm Extended Services and Interruptible Extended Services.

Amendment 3

The Access Arrangement and/or General Terms and Conditions should be amended to make provision for a Service Agreement for a Reference Service to be capable of including an option to extend the term of the Service Agreement for the capacity contracted in that agreement without exercise of the option being subject to allocation of spare capacity in accordance with the Queuing Policy.

Service Agreements for Spot Services

Amendment 4 (was Draft Decision Amendment 3)

Section 4 of the General Terms and Conditions should be amended to clarify that multiple purchases of Spot Services may be made under a single Service Agreement for Spot Services.

Attachment of Conditions to Service Agreements for Reference Services

Amendment 5 (was Draft Decision Amendment 4)

Section 7.1(c) and 7.2 of the Access Arrangement and section 2 of the General Terms and Conditions should be amended to state the conditions that may be attached to Service Agreements for provision of Reference Services and to remove discretionary powers of CMS to attach conditions to Service Agreements for provision of Reference Services, where such conditions are in addition to those provided for in the General Terms and Conditions.

3.3 TERMS AND CONDITIONS

3.3.1 Access Code Requirements

Section 3.6 of the Code requires that an Access Arrangement include the Terms and Conditions on which the Service Provider will supply each Reference Service. The Terms and Conditions included must, in the Regulator's opinion, be reasonable.

3.3.2 Access Arrangement Proposal

CMS has provided General Terms and Conditions in a single document as Appendix 3 of the Access Arrangement.

3.3.3 Draft Decision

The General Terms and Conditions address several matters that relate to specific requirements of the Code. The Regulator's considerations in respect of these matters are contained in the relevant sections of the Draft Decision. There were, however, several other matters addressed in the General Terms and Conditions that were not required by the Code to be addressed and that the Regulator has not agreed as reasonable. The Regulator determined that, in the absence of justification, these matters will require amendment before the Access Arrangement will be approved. Required amendments to the General Terms and Conditions were as follows.

Service Reliability

Draft Decision Amendment 5

Section 4.3 of the General Terms and Conditions should be amended to specify the degree of reliability for the Firm Extended Service.

Gas Quality

Draft Decision Amendment 6

Section 13.2 and schedule 3 of the General Terms and Conditions should be amended to make provision for the introduction of the broadest gas quality specification as provided for in the *Dampier to Bunbury Pipeline Regulations 1998*.

Disputed Invoices

Draft Decision Amendment 7

Section 14.4 of the General Terms and Conditions should be amended to allow for the non-payment of disputed invoices, or the disputed portion of an invoice, in instances of a manifest error in the invoice.

Measurement

Draft Decision Amendment 8

Section 16.3 of the General Terms and Conditions should be altered to provide for accuracy ranges of metering equipment to be specified for different flow rates, to state whether specifications of accuracy are based on units of energy or volume, and to provide for statements of accuracy in the same units as are used for billing.

Insurance Requirements

Draft Decision Amendment 9

Section 19.6 of the General Terms and Conditions should be amended to remove the provision for CMS to exercise discretion in respect of the level of public liability insurance that Users are required to hold.

3.3.4 Public Submissions on the Draft Decision

Service Reliability

Draft Decision Amendment 5. Section 4.3 of the General Terms and Conditions should be amended to specify the degree of reliability for the Firm Extended Service.

- Western Power

While OffGAR is seeking a reliability performance for Reference Services we would suggest that this should apply equally to Non-Reference Services unless specifically waived by the User. Further, there should be an undertaking by CMS that reservation charges will be fully refunded on days when CMS fails to meet the performance standard.

- CMS

CMS agrees in principle with Draft Decision Amendment 5.

The Regulator noted in the Draft Decision that there is no uniform practice amongst providers of gas transmission services in respect of waiving of reservation charges in the event of interrupted gas transportation. As such, the Regulator considered that the proposal for CMS to not waive reservation charges is reasonable practice in the industry. Notwithstanding this, the Regulator considered that the General Terms and Conditions could be made more equitable in the sharing of risks associated with interrupted transportation through such measures as specifying a pipeline reliability figure which if breached by the Service Provider would result in a waiving of reservation charges, or specifying events, such as construction works due to system expansion, where reservation charges would be waived.

With the General Terms and Conditions revised to reflect Draft Decision Amendment 5, CMS may technically be in breach of a service agreement where the stated reliability figure has not been achieved. However, Draft Decision Amendment 5 did not specifically address the requirement that reservation charges be reduced or refunded where the reliability figure is not achieved. The Regulator is of the view that the General Terms and Conditions should specifically require this to occur and has revised the required amendment accordingly.

The Regulator does not consider it appropriate to require CMS to specify a degree of reliability for Non-Reference Services and regards such a requirement to be contrary to the concept of a Non-Reference Service. Rather, a degree of reliability may be negotiated by a Prospective User for a Non-Reference Service, along with a commensurate tariff for that service.

Gas Quality

Draft Decision Amendment 6. Section 13.2 and schedule 3 of the General Terms and Conditions should be amended to make provision for the introduction of the broadest gas quality specification as provided for in the Dampier to Bunbury Pipeline Regulations 1998.

- CMS

CMS agrees in principle with Draft Decision Amendment 6.

In the absence of substantive submissions on Draft Decision Amendment 6, the Regulator will maintain the requirement for this amendment of the Access Arrangement. However, the Regulator notes that the *Dampier to Bunbury Pipeline Regulations 1998* will be repealed

once the Regulator has approved an Access Arrangement for the DBNGP. Consequently, a reference to these regulations in the Access Arrangement may become redundant. The Regulator has therefore revised the required amendment to explicitly indicate the gas quality specification, with the limits for various gas quality parameters being consistent with the least stringent limit of the quality specification put forward by CMS and the broadest gas quality specification as provided for in the *Dampier to Bunbury Pipeline Regulations 1998* at the date of this Final Decision.

Disputed Invoices

Draft Decision Amendment 7. Section 14.4 of the General Terms and Conditions should be amended to allow for the non-payment of disputed invoices, or the disputed portion of an invoice, in instances of a manifest error in the invoice.

- CMS

CMS agrees in principle with Draft Decision Amendment 7.

In the absence of substantive submissions on Draft Decision Amendment 7, the Regulator will maintain the requirement for this amendment of the Access Arrangement.

Measurement

Draft Decision Amendment 8. Section 16.3 of the General Terms and Conditions should be altered to provide for accuracy ranges of metering equipment to be specified for different flow rates, to state whether specifications of accuracy are based on units of energy or volume, and to provide for statements of accuracy in the same units as are used for billing.

- Office of Energy

As part of his Draft Decision the Regulator has required that section 16.3 of the General Terms and Conditions be altered to provide for accuracy ranges of metering equipment to be specified for different flow rates, to state whether specifications of accuracy are based on units of energy or volume, and to provide for statements of accuracy in the same units as are used for billing.

It appears that the above amendment was required on the basis of a technical advice to the Regulator on this issue that most pipeline operators in Australia define ranges of accuracy for different flow rates and specify if the stated accuracy is based on units of energy or volume.

It may be relevant to note that in Western Australia for customers supplied directly from transmission pipelines (i.e. pipelines subject to a Petroleum Pipeline Licence) the margin of metering error is generally negotiated between the customer and the pipeline operator. However, in the case of the DBNGP the requirements prescribing metering accuracy and formerly located in the Gas Transmission Regulations were, after the sale of the pipeline, transferred to the DBNGP Access Manual.

According to the DBNGP Access Manual primary metering equipment must achieve measurement within a maximum uncertainty of +/-1 percent of actual mass flow rate at a minimum of the 95 percent confidence level for metering equipment with a design maximum flow rate of 5 TJ/d or greater; and +/-2 percent of actual mass flow rate at a minimum of the 95 percent confidence level for metering equipment with a design maximum flow rate of less than 5 TJ/d. In addition, primary metering equipment must achieve measurement within a maximum uncertainty of +/-0.25 percent of higher heating value at a minimum of the 95 percent confidence level.

- CMS

CMS agrees in principle with Draft Decision Amendment 8.

The Regulator notes the comments made by the Office of Energy and will maintain the requirement for this amendment of the Access Arrangement. The Regulator has however sought technical advice on the precise requirements for specification of accuracy of metering and altered the required amendment accordingly (see Amendment 9 below).

Insurance Requirements

Draft Decision Amendment 9. Section 19.6 of the General Terms and Conditions should be amended to remove the provision for CMS to exercise discretion in respect of the level of public liability insurance that Users are required to hold.

- CMS

CMS agrees in principle with Draft Decision Amendment 8.

In the absence of substantive submissions on Draft Decision Amendment 8, the Regulator will maintain the requirement for this amendment of the Access Arrangement.

3.3.5 Required Amendments to the Access Arrangement

Service Reliability

Amendment 6 (was Draft Decision Amendment 5)

Section 4.3 of the General Terms and Conditions should be amended to specify the degree of reliability for the Firm Extended Service and to make provision for the waiver or reduction of reservation charges where this degree of reliability is not achieved.

Gas Quality

Amendment 7 (was Draft Decision Amendment 6)

Section 13.2 and schedule 3 of the General Terms and Conditions should be amended to specify that the pipeline Service Provider will allow access to the Parmelia Pipeline, under a Reference Service, of all gas meeting the following gas quality specification.

Maximum carbon dioxide (mole %)	4.0
Maximum inert gases (mole %)	7.0
Minimum higher heating value (MJ/m ³)	35.1
Maximum higher heating value (MJ/m ³)	42.3
Minimum Wobbe Index (MJ/m ³)	46.0
Maximum Wobbe Index (MJ/m ³)	51.5
Maximum total sulphur including odorant (mg/m ³)	20
Maximum hydrogen sulphide (mg/m ³)	4.6
Maximum oxygen (mole %)	0.2
Maximum water (mg/m ³)	100
Maximum hydrocarbon dewpoint over the pressure range 1.5 to 7.5 MPa absolute (°C)	10°C
Maximum radioactive components (Bq/m ³)	600

Disputed Invoices

Amendment 8 (was Draft Decision Amendment 7)

Section 14.4 of the General Terms and Conditions should be amended to allow for the non-payment of disputed invoices, or the disputed portion of an invoice, in instances of a manifest error in the invoice.

Measurement

Amendment 9 (was Draft Decision Amendment 8)

Section 16.3 of the General Terms and Conditions should be altered to specify accuracy ranges of metering equipment that contribute to energy measurement or, alternatively, to specify accuracy of metering in the same units as are used for billing.

Insurance Requirements

Amendment 10 (was Draft Decision Amendment 9)

Section 19.6 of the General Terms and Conditions should be amended to remove the provision for CMS to exercise discretion in respect of the level of public liability insurance that Users are required to hold.

3.3.6 Additional Revisions in Respect of the General Terms and Conditions

Nominations

CMS has proposed to the Regulator a revision of section 6.10(c) of the General Terms and Conditions, indicated as follows with the crossed words to be deleted from the section as it currently stands.

6.10 ...

- (c) ~~If no nomination is received by 1200 hours on the Nomination Day, but a nomination is received at any time after 1200 hours on the Nomination Day:~~
 - (i) *CMS may in its absolute discretion accept or reject the late nomination; and*
 - (ii) *CMS will acknowledge receipt of the nomination and notify the User of the quantity of User Gas able to be transported by CMS for the Gas Day as soon as reasonably practicable within the context of CMS' prevailing operational circumstances, and the User will be bound by and comply with that notification.*

The revision has the effect of making the General Terms and Conditions less restrictive for a User, allowing a User to submit a late nomination regardless of whether a nomination was placed by that User prior to the nomination closing time. The Regulator will not oppose this revision.

Liability in Situations of Contributory Negligence by other Parties

CMS has proposed to the Regulator a revision of the General Terms and Conditions to include the following sections.

19.3 *The Indemnitees shall not be liable for and shall be indemnified by the User against all losses, damages, claims, demands, costs or expenses suffered, incurred or made by the User or its employees, representatives, agents, contractors or any other person in respect of:*

...

(e) any other loss incurred by the User or any person contracting or dealing with or relying upon the provision of goods or services by the User (except for CMS) or having legitimate expectations as to the reliability of the supply of gas howsoever caused.

...

19.4 ...

(c) Notwithstanding anything else contained in the Service Agreement, CMS shall not be liable for any liability or loss to the extent that it is the fault of any other party or person. Where negligence is found to have been contributory each party will bear responsibility in accordance with that party's proportionate fault.

The revision has the effect of limiting the liability of CMS where there is contributory negligence on the part of another party, and where a third party suffers loss because of a legitimate expectation as to the reliability of gas supply.

The Regulator regards the provisions to be reasonable and will not oppose the revision.

3.4 CAPACITY MANAGEMENT POLICY

3.4.1 Access Code Requirements

Section 3.7 of the Code requires that an Access Arrangement include a statement (a Capacity Management Policy) that the Covered Pipeline is either:

- (a) a Contract Carriage Pipeline; or
- (b) a Market Carriage Pipeline.

Contract Carriage is a system of managing third party access whereby:

- (a) the Service Provider normally manages its ability to provide Services primarily by requiring Users to use no more than the quantity of Service specified in a contract;
- (b) Users normally are required to enter into a contract that specifies a quantity of Service;

- (c) charges for use of a service normally are based at least in part upon the quantity of Service specified in a contract; and
- (d) a User normally has the right to trade its right to obtain a service to another User.

Market Carriage is a system of managing third party access whereby:

- (a) the Service Provider does not normally manage its ability to provide Services primarily by requiring Users to use no more than the quantity of Service specified in a contract;
- (b) Users are not normally are required to enter into a contract that specifies a quantity of Service;
- (c) charges for use of Services are normally based on actual usage of Services; and
- (d) a User does not normally have the right to trade its right to obtain a service to another User.

Section 3.8 of the Code requires that the Regulator must not accept an Access Arrangement which states that the Covered Pipeline is a Market Carriage Pipeline unless the Relevant Minister of each Scheme Participant in whose Jurisdictional Area the pipeline is wholly or partly located has given notice to the Regulator permitting the Covered Pipeline to be a Market Carriage Pipeline.

3.4.2 Access Arrangement Proposal

In section 8 of the Access Arrangement CMS proposes to manage the Parmelia Pipeline as a Contract Carriage Pipeline.

3.4.3 Draft Decision

The Regulator noted in the Draft Decision that the Code requires no more than a statement in the Access Arrangement that the Covered Pipeline is a Contract Carriage or Market Carriage pipeline, subject to Ministerial permission for any proposal for the pipeline to be a Market Carriage Pipeline. As the Access Arrangement proposes that the pipeline is to be managed as a Contract Carriage Pipeline, it was considered that the Access Arrangement meets the requirements of the Code in respect of stating a Capacity Management Policy.

3.4.4 Responses to Submissions on the Draft Decision

No public submissions were received on the Regulators Draft Decision in respect of the Capacity Management Policy.

3.4.5 Required Amendments to the Access Arrangement

The Regulator considers that the requirements of the Code are met by the Access Arrangement in respect of a Capacity Management Policy and no amendments to the Access Arrangement are required in this respect.

3.5 TRADING POLICY

3.5.1 Access Code Requirements

Section 3.9 of the Code requires that an Access Arrangement for a covered pipeline which is described in the Access Arrangement as a Contract Carriage Pipeline must include a policy that explains the rights of a User to trade its right to obtain a Service to another person (a Trading Policy).

Section 3.10 of the Code requires that the Trading Policy must comply with the following principles.

- (a) A User must be permitted to transfer or assign all or part of its Contracted Capacity without the consent of the Service Provider concerned if:
 - (i) the User's obligations under the contract with the Service Provider remain in full force and effect after the transfer or assignment; and
 - (ii) the terms of the contract with the Service Provider are not altered as a result of the transfer or assignment (a Bare Transfer).

In these circumstances, the Trading Policy may require that the transferee notify the Service Provider prior to utilising the portion of the Contracted Capacity subject to the Bare Transfer and of the nature of the Contracted Capacity subject to the Bare Transfer, but the Trading Policy must not require any other details regarding the transaction to be provided to the Service Provider.

- (b) Where commercially and technically reasonable, a User must be permitted to transfer or assign all or part of its Contracted Capacity other than by way of a Bare Transfer with the prior consent of the Service Provider. The Service Provider may withhold its consent only on reasonable commercial or technical grounds and may make its consent subject to conditions only if they are reasonable on commercial and technical grounds. The Trading Policy may specify conditions in advance under which consent will or will not be given and conditions that must be adhered to as a condition of consent being given.
- (c) Where commercially and technically reasonable, a User must be permitted to change the Delivery Point or Receipt Point from that specified in any contract for the relevant Service with the prior written consent of the Service Provider. The Service Provider may withhold its consent only on reasonable commercial or technical grounds and may make its consent subject to conditions only if they are reasonable on commercial and technical grounds. The Trading Policy may specify conditions in advance under which consent will or will not be given and conditions that must be adhered to as a condition of consent being given.

Section 3.11 of the Code provides examples of matters that would be reasonable for the purposes of section 3.10(b) and (c):

- (a) the Service Provider refusing to agree to a User's request to change its Delivery Point where a reduction in the amount of the Service provided to the original Delivery Point will not result in a corresponding increase in the Service Provider's ability to provide that Service to the alternative Delivery Point; and

- (b) the Service Provider specifying that, as a condition of its agreement to a change in the Delivery Point or Receipt Point, the Service Provider must receive the same amount of revenue it would have received before the change.

3.5.2 Access Arrangement Proposal

A Trading Policy is provided by CMS in section 20 of the General Terms and Conditions.

The Trading Policy provides for Bare Transfers and Consent Transfers. Information is provided in respect of the rights of CMS in respect of Consent Transfers, as follows.

- i. Situations in which CMS may withhold consent to a Consent Transfer (General Terms and Conditions section 20.6).
- ii. The conditions that CMS may impose on a Consent Transfer, generally providing for a transferee or assignee to meet similar requirements as would apply to a Prospective User making an Access Request (General Terms and Conditions section 20.7).

The Trading Policy also makes provision for the following matters that are beyond the specific requirements of the Code.

- i. Assignment by CMS of its interests, rights and obligations in the Parmelia Pipeline or in a Service Agreement (General Terms and Conditions section 20.1).
- ii. The deeming of a Consent Transfer to include any change in control of a company that is a User, but which is not listed on the Australian Stock Exchange (General Terms and Conditions section 20.7).
- iii. The granting by a User of an Encumbrance in respect of a Service Agreement (General Terms and Conditions section 20.8).

3.5.3 Draft Decision

The Trading Policy proposed by CMS makes provision for Bare Transfers and Consent Transfers in a manner that is generally consistent with requirements of the Code. The Regulator did, however, have some concerns with the lack of specific provision in the Trading Policy for Users to alter Receipt Points and Delivery Points under a Service Agreement. An inability to alter Receipt Points and Delivery Points may restrict the application of Bare Transfers. As a result, the Access Arrangement was considered to not meet the requirements of the Code in respect of a Trading Policy. The required amendment to the Access Arrangement was as follows.

Alteration of Receipt Points and Delivery Points

Draft Decision Amendment 10

Section 20 of the General Terms and Conditions should be amended to specify conditions under which consent will or will not be given to alter Receipt Points and Delivery Points in a Service Agreement, and any conditions that must be adhered to as a condition of consent being given.

3.5.4 Responses to Submissions on the Draft Decision

Alteration of Receipt Points and Delivery Points

Draft Decision Amendment 10. Section 20 of the General Terms and Conditions should be amended to specify conditions under which consent will or will not be given to alter Receipt Points and Delivery Points in a Service Agreement, and any conditions that must be adhered to as a condition of consent being given.

- CMS

CMS agrees in principle with Draft Decision Amendment 10.

While CMS indicated in principle agreement with the required amendment, it was also pointed out to the Regulator that provisions for change to Receipt Points and Delivery Points is made in section 5.11 of the General Terms and Conditions. While these provisions adequately provide for changes to Receipt Points and Delivery Points for Reference Services (to which the General Terms and Conditions apply) the Code requires that provision for change of Receipt Points and Delivery Points applies to services generally. For this reason, the Regulator will maintain the requirement for this amendment of the Access Arrangement to provide, in accordance with section 3.10(c) of the Code, for a User to change a Receipt Point or Delivery Point.

3.5.5 Required Amendments to the Access Arrangement

Alteration of Receipt Points and Delivery Points

Amendment 11 (was Draft Decision Amendment 10)

Section 9 of the Access Arrangement should be amended to provide for a User to change Receipt Points or Delivery Points in accordance with the requirements of section 3.10(c) of the Code.

3.6 QUEUING POLICY

3.6.1 Access Code Requirements

Section 3.12 of the Code requires that an Access Arrangement must include a policy for determining the priority that a Prospective User has, as against any other Prospective User, to obtain access to Spare Capacity and Developable Capacity (and to seek dispute resolution under section 6 of the Code) where the provision of the Service sought by that Prospective User may impede the ability of the Service Provider to provide a Service that is sought or which may be sought by another Prospective User (a Queuing Policy).

Section 3.13 of the Code requires that the Queuing Policy must:

- (a) set out sufficient detail to enable Users and Prospective Users to understand in advance how the Queuing Policy will operate;

- (b) accommodate, to the extent reasonably possible, the legitimate business interests of the Service Provider and of Users and Prospective Users; and
- (c) generate, to the extent reasonably possible, economically efficient outcomes.

Section 3.14 of the Code provides for the Regulator to require the Queuing Policy to deal with any other matter the Regulator thinks fit, taking into account the matters listed in section 2.24 of the Code:

- (a) the Service Provider's legitimate business interests and investment in the Covered Pipeline;
- (b) firm and binding contractual obligations of the Service Provider or other persons (or both) already using the Covered Pipeline;
- (c) the operational and technical requirements necessary for the safe and reliable operation of the Covered Pipeline;
- (d) the economically efficient operation of the Covered Pipeline;
- (e) the public interest, including the public interest in having competition in markets (whether or not in Australia);
- (f) the interests of Users and Prospective Users; and
- (g) any other matters that the Regulator considers are relevant.

3.6.2 Access Arrangement Proposal

A Queuing Policy is provided by CMS in section 10 of the Access Arrangement.

The Queuing Policy provides for a queue to exist whenever there is insufficient Spare Capacity to satisfy an Access Request that has been lodged with CMS. Provision is made for separate queues to exist for Firm Extended and Interruptible Extended Reference Services. No specific mention is made of queuing arrangements for Non-Reference Services.

Access Requests are queued on the basis of date of lodgement, although provision is made for CMS to allocate pipeline capacity other than in order of queuing in times of “high demand for pipeline services and open seasons and similar invitations”, in which case CMS may deal with Access Requests in such a manner as to maximise pipeline utilisation and economically efficient outcomes for the Parmelia Pipeline (section 10.2 of the Access Arrangement).

The Access Arrangement provides details of operation of the Queuing Policy in respect of:

- placement in a queue;
- notification of Users as to placement of an Access Request in a queue, and changes in positions in a queue;
- obligations on Prospective Users with queued Access Requests to notify CMS of circumstances or events that may alter their requirements for capacity;

- the means of assigning priority to Access Requests in a queue;
- the holding of positions in multiple queues, multiple positions in a single queue;
- obligations of Prospective Users to maintain a position in a queue;
- removal of Access Requests from a queue;
- notification of Prospective Users of Spare Capacity or Developable Capacity;
- operation of queues in the event of acceptance or non-acceptance of Capacity;
- assignment of queue positions;
- the rights of any Prospective User with a queued Access Request being subordinate to the rights of any other party under a Grandfathered Contract.

3.6.3 Draft Decision

The Regulator considered that the Queuing Policy proposed by CMS does not meet the requirements of the Code as it does not, for all circumstances, provide sufficient information to enable Users and Prospective Users to understand in advance how priorities of access to Spare Capacity or Developable Capacity are to be determined at times when Access Requests exceed available Spare Capacity. Required amendments to the Access Arrangement were as follows.

Priorities of Access to Capacity for Non-Reference Services

Draft Decision Amendment 11

Section 10 of the Access Arrangement (Queuing Policy) should be amended to provide further information on how priorities of access to Spare Capacity or Developable Capacity will be determined in respect of Access Requests for Non-Reference Services.

Multiple Queues

Draft Decision Amendment 12

Section 10 of the Access Arrangement (Queuing Policy) should be amended to indicate how the priority of a Prospective User on a queue for one service is to be determined vis a vis Prospective Users on queues for other services.

Determination of Priorities other than by Queues

Draft Decision Amendment 13

Section 10 of the Access Arrangement (Queuing Policy) should be amended to describe in detail the circumstances in which CMS may deal with Access Requests other than in accordance with priorities as defined by queues, and describe the method by which priorities of Prospective Users will be determined in these circumstances.

3.6.4 Responses to Submissions on the Draft Decision

- CMS

CMS has indicated agreement in principle with the Regulator's required amendments to the Access Arrangement outlined in the Draft Decision in respect of the Queuing Policy (Draft Decision Amendments 11, 12, 13)

In the absence of substantive submissions on Draft Decision Amendments 11, 12 and 13, the Regulator will maintain the requirements for these amendments to the Access Arrangement.

3.6.5 Required Amendments to the Access Arrangement

Priorities of Access to Capacity for Non-Reference Services

Amendment 12 (was Draft Decision Amendment 11)

Section 10 of the Access Arrangement (Queuing Policy) should be amended to provide further information on how priorities of access to Spare Capacity or Developable Capacity will be determined in respect of Access Requests for Non-Reference Services.

Multiple Queues

Amendment 13 (was Draft Decision Amendment 12)

Section 10 of the Access Arrangement (Queuing Policy) should be amended to indicate how the priority of a Prospective User on a queue for one service is to be determined vis a vis Prospective Users on queues for other services.

Determination of Priorities other than by Queues

Amendment 14 (was Draft Decision Amendment 13)

Section 10 of the Access Arrangement (Queuing Policy) should be amended to describe in detail the circumstances in which CMS may deal with Access Requests other than in accordance with priorities as defined by queues, and describe the method by which priorities of Prospective Users will be determined in these circumstances.

3.7 EXTENSIONS/EXPANSIONS POLICY

3.7.1 Access Code Requirements

Section 3.16 of the Code requires that an Access Arrangement include a policy (an Extensions/Expansions Policy) which sets out:

- (a) the method to be applied to determine whether any extension to, or expansion of the Capacity of, the covered pipeline:
 - (i) should be treated as part of the covered pipeline for all purposes under the Code; or

(ii) should not be treated as part of the covered pipeline for any purpose under the Code;

(for example, the Extensions/Expansions Policy could provide that the Service Provider may, with the Regulator's consent, elect at some point in time whether or not an extension or expansion will be part of the covered pipeline or will not be part of the covered pipeline);

(b) how any extension or expansion which is to be treated as part of the covered pipeline will affect Reference Tariffs (for example, the Extensions/Expansions Policy could:

(i) indicate that Reference Tariffs will remain unchanged but a surcharge may be levied on Incremental Users where permitted by sections 8.25 and 8.26 of the Code; or

(ii) specify that a review will be triggered and that the Service Provider must submit revisions to the Access Arrangement pursuant to section 2.28 of the Code);

(c) if the Service Provider agrees to fund New Facilities if certain conditions are met, a description of those New Facilities and the conditions on which the Service Provider will fund the New Facilities.

The Regulator may not require the Extensions/Expansions Policy to state that the Service Provider will fund New Facilities, unless the Service Provider agrees.

3.7.2 Access Arrangement Proposal

An Extensions/Expansions Policy is provided by CMS in section 11 of the Access Arrangement.

The general provisions of the Extensions/Expansions Policy are as follows.

- i. CMS will undertake reasonable investigations as to the nature, extent and approximate cost of Enhanced Facilities where the cost of the investigations is met by the Prospective User and the Prospective User commits to make an agreed contribution to the costs of the Enhanced Facilities.
- ii. CMS may of its own accord undertake investigations as to possible Enhanced Facilities.
- iii. A pipeline extension or expansion may be made subject to the Access Arrangement either by CMS electing to do so, and the Regulator consents, or by amendment to the Access Arrangement where the amendment is required by the Code.
- iv. Where extensions or expansions have been fully funded by a User, there would be no change to Reference Tariffs applied to that user.
- v. Incremental Users (as defined in the Code) which have not made capital contributions towards Incremental Capacity (as defined in the Code) which they use and which has been funded by others will be liable to pay for surcharges as allowed for in section 8 of the Code.
- vi. Pipeline extensions or expansions funded by CMS may result in the application of surcharges as allowed for in section 8 of the Code.

3.7.3 Draft Decision

The Extensions/Expansions Policy proposed by CMS indicates that an extensions/expansion of the pipeline may be made subject to the Access Arrangement either at the discretion of CMS, and subject to the consent of the Regulator, or by amendment to the Access Arrangement where the amendment is required by the Code. The policy does not, however, explicitly address a decision by CMS for an extension or expansion to be not treated as part of the Covered Pipeline. The Regulator considered that in not indicating how such a decision is to be dealt with, the Access Arrangement does not meet the requirements of the Code. The required amendment to the Access Arrangement was as follows.

Notification of the Regulator where an Extension or Expansion to the Pipeline will not be Subject to the Access Arrangement

Draft Decision Amendment 14

Section 11 of the Access Arrangement (Extensions/Expansions Policy) should be amended to include a section indicating that CMS may elect for a pipeline extension or expansion to be not subject to the Access Arrangement, subject to providing written notice to the Regulator.

3.7.4 Responses to Submissions on the Draft Decision

- CMS

CMS has indicated agreement in principle with the Regulator's required amendment to the Access Arrangement outlined in the Draft Decision in respect of the Extensions/Expansions Policy (Draft Decision Amendments 14)

In the absence of substantive submissions on Draft Decision Amendment 14, the Regulator will maintain the requirements for these amendments to the Access Arrangement.

3.7.5 Required Amendments to the Access Arrangement

Amendment 15 (was Draft Decision Amendment 14)

Section 11 of the Access Arrangement (Extensions/Expansions Policy) should be amended to include a section indicating that CMS may elect for a pipeline extension or expansion to be not subject to the Access Arrangement, subject to providing written notice to the Regulator.

3.8 REVIEW DATE

3.8.1 Access Code Requirements

Section 3.17 of the Code requires that an Access Arrangement include:

- (a) a date upon which the Service Provider must submit revisions to the Access Arrangement (a revisions submission date); and

- (b) a date upon which the next revisions to the Access Arrangement are intended to commence (a revisions commencement date).

In approving the Revisions Submission Date and Revisions Commencement Date, the Regulator must have regard to the objectives for Reference Tariffs and Reference Tariff Policy in section 8.1 of the Code, and may in making a decision on an Access Arrangement (or revisions to an Access Arrangement), if the Regulator considers it necessary having had regard to the objectives in section 8.1 of the Code:

- (i) require an earlier or later Revisions Submission Date and Revisions Commencement Date than proposed by the Service Provider in its proposed Access Arrangement; and
- (ii) require that specific major events be defined that trigger an obligation on the Service Provider to submit revisions prior to the Revisions Submission Date.

Section 3.18 of the Code provides for an Access Arrangement Period to be of any length. However, if the Access Arrangement Period is more than five years, the Regulator must not approve the Access Arrangement without considering whether mechanisms should be included to address the risk of forecasts on which the terms of the Access Arrangement were based and approved proving incorrect. These mechanisms may include:

- (a) requiring the Service Provider to submit revisions to the Access Arrangement prior to the Revisions Submission Date if certain events occur, for example:
- (i) if a Service Provider's profits derived from a covered pipeline are outside a specified range or if the value of services reserved in contracts with Users are outside a specified range;
- (ii) if the type or mix of services provided by means of a covered pipeline changes in a certain way; or
- (b) a Service Provider returning some or all revenue or profits in excess of a certain amount to Users, whether in the form of lower charges or some other form.

Where a mechanism is included in an Access Arrangement pursuant to section 3.18(a), the Regulator must investigate no less frequently than once every five years whether a review event identified in the mechanism has occurred.

3.8.2 Access Arrangement Proposal

Section 3 of the Access Arrangement specifies that the Access Arrangement will come into effect on the Effective Date. The term of the Access Arrangement is not explicitly stated although provision is made in section 12 of the Access Arrangement for a Revisions Submission Date of 31 October 2003, and a Revisions Commencement Date of 1 May 2004. The implied term of the Access Arrangement is approximately 3½ years.

Provisions for review of the Access Arrangement, other than in respect of the Revisions Submissions Date, are made in sections 12.2 and 12.3 of the Access Arrangement. These provisions allow for CMS to conduct a review of the Access Arrangement in the event of:

- a pipeline extension is undertaken which is subject to the Access Arrangement;

- there is a material or significant change in the market, economic, political or general regulatory conditions or circumstances from those which, at the Effective Date, are forecast and assumed will exist for the duration of the Access Arrangement;
- there is a change in the provisions or administration of any Act or other law, including the Code or the *Trade Practices Act (1974)* (Cth), which necessitates a review of the Access Arrangement;
- any other event occurs which requires the Access Arrangement to be updated or amended under any other provision of the Access Arrangement; or
- if the proposed Commonwealth goods and services tax, when it is introduced, is different from what was understood at the Effective Date.

3.8.3 Draft Decision

CMS proposed a Revisions Submission Date of 31 October 2003, and a Revisions Commencement Date of 1 May 2004. The implied term of the Access Arrangement is approximately 3½ years. In stating a Revisions Submission Date and a Revisions Commencement Date, the Access Arrangement was considered to meet the requirements of the Code in respect of the Review Date.

The Regulator gave consideration to whether the provisions and contingencies for CMS to review the Access Arrangement are consistent with the Code.

Section 2.28 of the Code allows a Service Provider to propose revisions to an Access Arrangement at any time with no restrictions placed on the Service Provider as to the reasons for proposing revisions. Thus the contingencies set out by CMS for review of the Access Arrangement are, for all practical purposes, just declaratory. CMS could propose revisions to the Access Arrangement in response to any of these contingencies even if they were not stated in the Access Arrangement. However, notwithstanding the ability of CMS to propose revisions to the Access Arrangement, any proposed revisions are subject to assessment and approval by the Regulator in accordance with section 2 of the Code.

The Regulator also gave consideration to whether it was necessary for the Access Arrangement to define specific major events that trigger an obligation on the Service Provider to submit revisions prior to the Revisions Submission Date, in accordance with section 3.17 of the Code. In this regard, the Federal Government's proposed changes to company taxation were considered relevant. The Regulator considered that provision should be made for review of the Access Arrangement in the event of changes to company taxation as currently proposed by the Federal Government. The required amendment to the Access Arrangement was as follows.

Trigger Mechanisms

Draft Decision Amendment 15

Section 12 of the Access Arrangement should be amended to make provision for a review of the Access Arrangement to be triggered by changes to company taxation arrangements, including changes to the rate of corporate income tax.

3.8.4 Responses to Submissions on the Draft Decision

Trigger Mechanism Relating to Realised Throughput

- Office of Energy

It is noted that in accordance with the principles established by the Code, CMS used a price path methodology for the determination of Reference Tariffs. Under section 8.3 of the Code Reference Tariffs may be determined by a price path approach, whereby a series of Reference Tariffs are determined in advance for the Access Arrangement Period to follow a path that is forecast to deliver a revenue stream calculated consistently with the principles in section 8 of the Code, but is not adjusted to account for subsequent events until the commencement of the next Access Arrangement Period.

Given the implied uncertainties associated with the throughput forecasts for the Parmelia Pipelines, evidenced by the differences in the Regulator's and CMS' opinion in respect of those forecasts, a trigger mechanism may be warranted based on actual throughput. (For example, the difference in the throughput estimated by the Regulator and CMS for the year 2000 is 46 TJ/d or 115 percent.) The mechanism would be aimed at preventing windfall gains for CMS in the case of significantly higher throughputs earlier than projected by the Regulator in making his Draft Decision.

The Regulator could consider including a trigger mechanism, which would require the Access Arrangement to be reviewed, if in any one year the throughput of the Parmelia Pipeline was significantly higher than the estimated by the Regulator in making his Draft Determination. The Office of Energy notes, however, that the trigger mechanism should be designed to avoid having adverse effects on CMS' incentives to grow the throughput of the pipeline for the long-term benefits of its customers.

The Office of Energy notes that both the ACCC (in its recent Draft Decision on the Central West Pipeline (NSW)) and IPART (in its recent Draft Decision on the AGL's gas network (NSW)) have required trigger mechanisms based on throughput volumes. Both regulators have required the respective Access Arrangements to be reviewed, if, in any one year, contract market volume forecasts on which reference tariffs are based proved to be more than 25 percent inaccurate. The IPART considers that this mechanism leaves sufficient incentive for AGL to grow the NSW gas market in the Access Arrangement Period.

The Office of Energy requests that the Regulator consider including a trigger mechanism, which would require the CMS Access Arrangement to be reviewed, if in any one year the throughput of the Parmelia Pipeline was 25 percent higher than that estimated by the Regulator in making his Draft Determination.

In assessing whether a trigger event should be included in the Access Arrangement based on an excess of realised gas throughput over forecast throughput, the Regulator took particular account of the objectives for a Reference Tariff of replicating the outcome of a competitive market and providing an incentive to the Service Provider to develop the market for Reference Services and other services (sections 8.1(b) and 8.1(f) of the Code).

An increase in gas throughput will typically result in a reduction in the unit cost of gas transmission, particularly for a pipeline such as the Parmelia Pipeline for which the assets are currently being utilised as substantially less than capacity. In a competitive market, it is likely that reductions in unit costs for a service such as gas transmission would be passed on to consumers in lower unit prices. In itself, this would suggest that the Access Arrangement should be reviewed for any excess of realised throughput over forecast throughput. However, permitting a Service Provider to capture windfall gains from increasing throughput to levels greater than forecast during the Access Arrangement Period may provide an incentive for that Service Provider to increase throughput. The benefits from increased throughput (through lower unit costs) would be passed on to Users in the next Access Arrangement Period (through lower unit tariffs).

In considering whether to include a trigger mechanism based on realised throughput quantity in the Access Arrangement for the Parmelia Pipeline, the Regulator has given consideration

to the potential for there to be a fundamental change in the way in which the Parmelia Pipeline is operated. For example, the pipeline may become the southern part of a pipeline from the Carnarvon Basin, or may be used to transport gas from the DBNGP, via the Mondarra interconnection, to the Perth market. Such changes could potentially occur relatively early in the Access Arrangement Period (which extends for five years after the date of approval of the Access Arrangement by the Regulator) and involve large increases in gas throughput above forecasts used for the current determination of Reference Tariffs. On this basis, the Regulator considers that a trigger mechanism based on realised throughput quantity is justified.

In considering an appropriate level of realised throughput to be defined as a specific major event that would trigger a review of the Access Arrangement, the Regulator has noted that there are regulatory precedents for nominating a throughput of 125 percent of forecast throughput.²

For the Parmelia Pipeline, a 25 percent increase in throughput above the maximum throughput assumed for the determination of Reference Tariffs equals 15 TJ/day, corresponding to an increase in annual revenue of approximately \$3 million assuming that the increased throughput earns revenue at the Reference Tariff (100 percent load factor) of \$0.55/GJ. With costs of reviewing the Access Arrangement possibly being in the order of a few hundred thousand dollars, such an increase in revenue is considered sufficient to cover the costs of reviewing the Access Arrangement and provide some residual benefit to Users.

The Regulator therefore requires that the Access Arrangement should be amended to make provision for a review of the Access Arrangement to be triggered in the event that the realised average daily throughput for any 12 month period of the Access Arrangement Period exceeds 75 TJ.

Goods and Services Tax

- Office of Energy

In its first submission to the Regulator the Office of Energy commented that given the significance and complexities of the goods and services tax, it may be more appropriate for a review and adjustment of charges to be undertaken only with the prior agreement of the Regulator and that the GST should serve as an Access Arrangement review trigger event as provided for under the Code.

In response to this comment the Regulator stated the following in its Draft Decision:

- Section 2.28 of the Code provides for the Service Provider to, at any time, submit to the Regulator proposed revisions to the Access Arrangement. Revisions only come into effect after approval by the Regulator. Consequently the requirements of the Code satisfy concerns raised in the submission in respect of a requirement for prior agreement of the Regulator with revisions of the Access Arrangement; and
- Section 3.17 of the Code provides for the Regulator to require that specific major events be defined that trigger an obligation on the Service Provider to submit revisions to the Access Arrangement prior to the Revisions Submission Date. This is not considered necessary in respect of the goods and services tax given the relatively short duration of the Access Arrangement and a low likelihood that any matters would arise in association with the goods and services tax that would require revision of the Access

² ACCC, September 1999, Draft Decision, Central West Pipeline (NSW); IPART, October 1999, Draft Decision, AGL Gas Network (NSW); Independent Gas Pipelines Access Regulator WA, Final Decision, Mid-West and South-West Distribution Systems.

Arrangement in the interests of Users. A specified trigger event is not necessary for CMS to propose revisions to the Access Arrangement in order to raise Reference Tariffs to accommodate a goods and services tax.

While the Office of Energy agrees with the first statement, it notes that section 21.6 of the General Terms and Conditions proposed by CMS as part of its Parmelia Pipeline Access Arrangement does not reflect the requirement for prior agreement of the Regulator with revisions of the Access Arrangement. The Office of Energy considers that it is in the interest of the users that section 21.6 is amended to reflect that revisions to any of the charges only come into effect after approval by the Regulator.

In view of the introduction on the goods and service tax as of 1 July 2000, the impact of the tax was taken into account in reviewing the Reference Tariff for the purposes of this Final Decision. The Regulator is of the view that it is appropriate to accommodate the pass through of the goods and services tax in the Reference Tariffs as they will be set out in the revised Access Arrangement.

CMS has proposed to the Regulator that the goods and services tax be passed through to Reference Tariffs at a rate of 10 percent of the goods-and-services-tax exclusive tariff and the Regulator has assessed the Reference Tariff on this basis. However, prior to the final approval of a Reference Tariff, the Regulator will require CMS to submit an independent accounting opinion on the appropriateness of the methodology used in determining its proposed GST pass-through proportion for Reference Tariff purposes taking into account the tax savings available.

Trigger Mechanism Relating to Changes in Corporate Income Tax

- CMS

CMS has indicated agreement in principle with the Regulator's required amendment to the Access Arrangement outlined in the Draft Decision in respect of trigger mechanisms for the review of the Access Arrangement (Draft Decision Amendment 15).

Since issuing the Draft Decision, the Regulator has obtained advice on the provisions of the Code related to changes in Reference Tariffs over the Access Arrangement Period, the corresponding role and powers of the Regulator in respect of the approval of such changes, and the operation of trigger mechanisms. In relation to trigger events, once certain events have been defined as "specific major events" for the purposes of section 3.17 of the Code, their occurrence will oblige the Service Provider to submit revisions to the Access Arrangement in accordance with section 2.28 of the Code, and the Regulator to conduct a review in accordance with the requirements of Part 2 of the Code. There is no capacity for either the Regulator or the Service Provider to have discretion on whether a review occurs depending upon the magnitude of potential benefits for Users.

In view of the operation of trigger mechanisms, there is a consequent need to define the "specific major events" in such a way as to ensure that a review is only triggered where it is justified by the potential benefits of a review. The Regulator considers that, in principle, it would be generally appropriate for a review of an Access Arrangement to be triggered if significant reductions to a Service Provider's costs occur as a result of regulatory or taxation changes. However, in the case of the Parmelia Pipeline, with operating costs of about \$3.7 million per annum and projected revenues of about \$10 million per annum, it is unlikely that any taxation changes will occur that will give rise to cost savings sufficiently in excess of the costs of reviewing the Access Arrangement to justify an earlier review. As a result, the Regulator does not consider that a trigger event based on taxation changes is warranted for the Parmelia Pipeline. In view of this, the Regulator will remove the requirement for the

Access Arrangement to include a trigger event based on changes to company taxation arrangements (Draft Decision Amendment 15).

3.8.5 Required Amendments to the Access Arrangement

Amendment 16

The Access Arrangement should be amended to specify that CMS will submit revisions to the Regulator within three months of the end of any 12 month period for which the average daily gas throughput for the pipeline exceeds 75 TJ.

3.8.6 Additional Revisions in Respect of the Review Date

CMS has proposed to the Regulator a revision of section 12.1 of the Access Arrangement in respect of the Revisions Submission Date and the Revisions Commencement Date, indicated as follows.

12.1 In accordance with section 3.17 of the Code:

- (a) the Revisions Submission Date is four and one half years after the Effective Date for the purposes of section 3.17(a) of the Code is ~~31 October 2003~~; and*
- (c) the Revisions Commencement Date is the later of five years after the Effective Date or when the revised Access Arrangement is approved by the Regulator. for the purposes of section 3.17(b) of the Code is ~~1 May 2004~~,*

~~but otherwise no review of the Access Arrangement is intended during the term of this Access Arrangement, except as provided for in this part.~~

The revision has the effect of providing for an Access Arrangement Period of five years regardless of the Effective Date of the Access Arrangement. The Regulator notes that no public submissions were received on the initial proposals of the Access Arrangement in respect of the Revisions Submission Date and the Revisions Commencement Date. In view of this, the Regulator will not oppose this revision to the proposed Access Arrangement for the Parmelia Pipeline.

3.9 OTHER MATTERS INCLUDED IN THE ACCESS ARRANGEMENT

3.9.1 Access Code Requirements

Section 2.24 of the Code requires that an Access Arrangement contain the elements and satisfy the principles set out in sections 3.1 to 3.20 of the Code. An Access Arrangement may, however, address matters or provide information beyond the requirements of sections 3.1 to 3.20 of the Code.

The Regulator may not refuse to approve a proposed 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. However, should an Access

Arrangement address matters in addition to the requirements of sections 3.1 to 3.20 of the Code, then the Regulator has broad discretion to refuse to accept the Access Arrangement if the additional matters are considered not reasonable. In assessing any additional matters included in an Access Arrangement, the Regulator may take into account the factors listed in section 2.24 of the Code:

- (a) the Service Provider's legitimate business interests and investment in the covered pipeline;
- (b) firm and binding contractual obligations of the Service Provider or other persons (or both) already using the covered pipeline;
- (c) the operational and technical requirements necessary for the safe and reliable operation of the covered pipeline;
- (d) the economically efficient operation of the covered pipeline;
- (e) the public interest, including the public interest in having competition in markets (whether or not in Australia);
- (f) the interests of Users and Prospective Users; and
- (a) any other matters that the Regulator considers are relevant.

3.9.2 Access Arrangement Proposal

The Access Arrangement addresses several matters outside the scope of sections 3.1 to 3.20 of the Code. These matters relate principally to requirements and procedures for the lodgement of Access Requests and entering into a Service Agreement and included:

- provision for an Access Request to comprise an irrevocable offer by the Prospective User;
- procedural provisions for entering into a service agreement;
- provisions for the Service Provider to request information from Prospective Users;
- provision for refusal of Access Requests deemed by the Service Provider to be vexatious, frivolous or anti-competitive; and
- provisions relating to lapsing of an Access Request if conditions of acceptance of the Access Request are not met.

One of the additional matters related to the charging of a Service Request Administration Fee for lodgement of an Access Request. The Regulator's considerations in regard to this proposed fee are documented in section 5 of this Final Decision.

3.9.3 Draft Decision

In considering the additional matters addressed by the Access Arrangement, the Regulator took into account the factors listed in section 2.24 of the Code. In view of these factors, the

Regulator considered the following amendments to be necessary to make the Access Arrangement more reasonable.

Access Request an Irrevocable Offer

Draft Decision Amendment 16

Section 6.6 of the Access Arrangement should be amended to provide for an Access Request to comprise an irrevocable offer only where CMS imposes no conditions on delivery of the requested Service, or where the Prospective User indicates acceptance of any Conditions imposed by CMS.

Draft Decision Amendment 17

Section 6.6 and/or section 6.14 of the Access Arrangement should be amended to remove contradictory provisions relating to the time at which an Access Request becomes an irrevocable offer.

Requirements for Additional Information

Draft Decision Amendment 18

Section 6.8 of the Access Arrangement should be amended to limit the scope of additional information able to be required by CMS to the information requirements listed in respect of an Access Request in 6.1, 6.2 or 6.4 of the Access Arrangement, or to the information requirements specified in the Information Package compiled and maintained in accordance with section 5.1 of the Code.

Refusal to consider Vexatious, Frivolous or Anti-Competitive Access Requests

Draft Decision Amendment 19

Section 6.13 of the Access Arrangement should be deleted. This section provides for CMS to refuse consideration of an Access Request if CMS considers that the Access Request has been lodged for reasons which are vexatious, frivolous or anti-competitive.

Conditional Acceptance of Access Requests

Draft Decision Amendment 20

Section 7.3 of the Access Arrangement should be amended to provide for defined events such as including installation and commissioning of Enhanced Facilities or third party equipment, process facilities or infrastructure, to be required only as conditions subsequent to entering into a Service Agreement.

3.9.4 Responses to Submissions on the Draft Decision

Access Request an Irrevocable Offer

Draft Decision Amendment 16. Section 6.6 of the Access Arrangement should be amended to provide for an Access Request to comprise an irrevocable offer only where CMS imposes no

conditions on delivery of the requested Service, or where the Prospective User indicates acceptance of any Conditions imposed by CMS.

Draft Decision Amendment 17. Section 6.6 and/or section 6.14 of the Access Arrangement should be amended to remove contradictory provisions relating to the time at which an Access Request becomes an irrevocable offer.

- CMS

CMS has indicated agreement in principle with the requirements of Draft Decision Amendments 16 and 17.

In the absence of substantive submissions on Draft Decision Amendments 16 and 17, the Regulator will maintain the requirements for these amendments to the Access Arrangement.

Requirements for Additional Information

Draft Decision Amendment 18. Section 6.8 of the Access Arrangement should be amended to limit the scope of additional information able to be required by CMS to the information requirements listed in respect of an Access Request in 6.1, 6.2 or 6.4 of the Access Arrangement, or to the information requirements specified in the Information Package compiled and maintained in accordance with section 5.1 of the Code.

- CMS

CMS has indicated opposition to the requirements of Draft Decision Amendment 18 and indicated that there should not be a limitation on the scope of information able to be required by CMS, other than a limitation that any information requirement must be necessary for CMS to reasonably consider the Access Request.

Section 5.1 of the Code provides that a Service Provider must establish and maintain an Information Package that includes (section 5.1(d)) a detailed description of the information the Service Provider requires in order to consider an Access Request. The Regulator therefore considers that, for the sake of consistency, the provision in the Access Arrangement for information to be required by CMS should be limited to the information requirements as described in the Access Arrangement and/or the Information Package. For this reason the Regulator will maintain the requirement for revision of the Access Arrangement as described in Draft Decision Amendment 18.

Refusal to consider Vexatious, Frivolous or Anti-Competitive Access Requests

Draft Decision Amendment 19. Section 6.13 of the Access Arrangement should be deleted. This section provides for CMS to refuse consideration of an Access Request if CMS considers that the Access Request has been lodged for reasons which are vexatious, frivolous or anti-competitive.

- CMS

CMS has indicated opposition to the requirements of Draft Decision Amendment 19.

CMS has communicated concerns to the Regulator as to the potential effects of anticompetitive behaviour on its transmission business with the Parmelia Pipeline, and the consequent desire to be able to refuse to consider an Access Request that is regarded as vexatious, frivolous or anti-competitive. The Regulator has some concern that such a

provision is not strictly in accordance with the requirements of section 5.4 of the Code that require a Service Provider to respond in one of three ways to an Access Request:

- (a) confirming that Spare Capacity exists to satisfy the request and specifying the charges and terms and conditions upon which it will make the service available;
- (b) advising that Spare Capacity does not exist to satisfy the request;
- (c) advising that investigations are required to be undertaken prior to responding to the request.

Notwithstanding this, the Regulator is of the view that it is reasonable for a Service Provider to be able to refuse to consider an Access Request that could reasonably be regarded as vexatious or frivolous, and such a clause was not contested by the Regulator in respect of the Access Arrangement for the Mid-West and South-West Distribution Systems. The Regulator is therefore willing to accept provision in the Access Arrangement for such refusal, subject to this being constrained by a ‘reasonableness’ requirement and the terms *vexatious* and *frivolous* being clearly defined in the Access Arrangement with a meaning acceptable to the Regulator.

The Regulator is not, however, prepared to accept provision in the Access Arrangement for refusal of an Access Request on the basis of a consideration by the Service Provider that the Access Request is anticompetitive. The Regulator is of the view that anticompetitive behaviour should be addressed through trade practices legislation.

Conditional Acceptance of Access Requests

Draft Decision Amendment 20. Section 7.3 of the Access Arrangement should be amended to provide for defined events such as including installation and commissioning of Enhanced Facilities or third party equipment, process facilities or infrastructure, to be required only as conditions subsequent to entering into a Service Agreement.

- CMS

CMS has indicated agreement in principle with the Regulator’s required amendment to the Access Arrangement outlined in Draft Decision Amendment 20.

In the absence of substantive submissions on Draft Decision Amendment 20, the Regulator will maintain the requirements for this amendment to the Access Arrangement.

3.9.5 Required Amendments to the Access Arrangement

Access Request an Irrevocable Offer

Amendment 17 (was Draft Decision Amendment 16)

Section 6.6 of the Access Arrangement should be amended to provide for an Access Request to comprise an irrevocable offer only where CMS imposes no conditions on delivery of the requested service, or where the Prospective User indicates acceptance of any conditions imposed by CMS.

Amendment 18 (was Draft Decision Amendment 17)

Section 6.6 and/or section 6.14 of the Access Arrangement should be amended to remove contradictory provisions relating to the time at which an Access Request becomes an irrevocable offer.

Requirements for Additional Information

Amendment 19 (was Draft Decision Amendment 18)

Section 6.8 of the Access Arrangement should be amended to limit the scope of additional information able to be required by CMS to the information requirements listed in respect of an Access Request in 6.1, 6.2 or 6.4 of the Access Arrangement, or to the information requirements specified in the Information Package compiled and maintained in accordance with section 5.1 of the Code.

Refusal to consider Vexatious, Frivolous or Anti-Competitive Access Requests

Amendment 20 (was Draft Decision Amendment 19)

Section 6.13 of the Access Arrangement should be amended to indicate that CMS may only refuse to consider an Access Request for reasons of it being considered vexatious or frivolous, only if CMS may reasonably take such a view. The Access Arrangement should also be amended to provide definitions of *vexatious* and *frivolous* that are acceptable to the Regulator, and to remove provision for an Access Request to be refused for reason of it being considered anti-competitive.

Conditional Acceptance of Access Requests

Amendment 21 (was Draft Decision Amendment 20)

Section 7.3 of the Access Arrangement should be amended to provide for defined events such as including installation and commissioning of Enhanced Facilities or third party equipment, process facilities or infrastructure, to be required only as conditions subsequent to (rather than precedent to) entering into a Service Agreement.

4. REFERENCE TARIFFS

4.1 INTRODUCTION

Section 3.3 of the Code requires that an Access Arrangement 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 Regulator considers a Reference Tariff should be included.

The principles used to determine Reference Tariffs are to be stated as a Reference Tariff Policy. Both the Reference Tariff Policy and the Reference Tariffs should be designed with a view to achieving the objectives set out in section 8.1 of the Code:

- (a) providing the Service Provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets used in delivering that Service;
- (b) replicating the outcome of a competitive market;
- (c) ensuring the safe and reliable operation of the pipeline;
- (d) not distorting investment decisions in pipeline transportation systems or in upstream and downstream industries;
- (e) efficiency in the level and structure of the Reference Tariff; and
- (f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services.

To the extent that any of these objectives conflict in their application to a particular Reference Tariff determination, the Regulator may determine the manner in which they can best be reconciled or which of them should prevail.

CMS has proposed Reference Tariffs for two Reference Services: the Firm Extended Service and the Interruptible Extended Service. In accordance with the principles established by the Code, CMS used a price path methodology for the determination of Reference Tariffs. With this approach, a series of Reference Tariffs are determined in advance for the Access Arrangement Period. The Reference Tariffs follow a path that is forecast to deliver a revenue stream sufficient to cover projected costs of providing the services.

The Code provides a general procedure for the application of the price path methodology to the determination of Reference Tariffs. The steps in this general procedure are:

- estimation of an Initial Capital Base;
- estimation of Capital Expenditure;
- estimation of Operating Expenditure;

- estimation of an appropriate Rate of Return;
- specification of a Depreciation Schedule;
- determination of Total Revenue, a cost/revenue allocation across services, and Reference Tariffs; and
- specification of Incentive Mechanisms.

The Regulator considered the Reference Tariffs proposed by CMS in light of each of these steps.

4.2 METHODOLOGY USED TO DETERMINE REFERENCE TARIFFS

4.2.1 Access Code Requirements

Section 8.3 of the Code provides for the methodology for determination of Reference Tariffs to be at the discretion of the Service Provider, subject to the Regulator being satisfied that the methodology is consistent with the objectives contained in section 8.1 of the Code. Notwithstanding this, section 8.3 of the Code suggests that Reference Tariffs may be determined by:

- (a) a price path approach, whereby a series of Reference Tariffs are determined in advance for the Access Arrangement Period to follow a path that is forecast to deliver a revenue stream calculated consistently with the principles in section 8 of the Code, but is not adjusted to account for subsequent events until the commencement of the next Access Arrangement Period;
- (b) a cost of service approach, whereby the Tariff is set on the basis of the anticipated costs of providing the Reference Service and is adjusted continuously in light of actual outcomes (such as sales volumes and actual costs) to ensure that the Tariff recovers the actual costs of providing the Service; or
- (c) variations or combinations of these approaches.

4.2.2 Access Arrangement Proposal

CMS utilised a price path approach for the determination of Reference Tariffs.

4.2.3 Draft Decision

The Regulator recognised that the Code provides a Service Provider with discretion in determining the methodology used to determine Reference Tariffs, subject to the chosen methodology being consistent with the objectives of Section 8.1 of the Code. The adoption by CMS of a price path methodology was considered to be consistent with these requirements. The Draft Decision indicated that the Access Arrangement is considered to meet the requirements of the Code in respect of the general methodology used for the calculation of Reference Tariffs. It was noted, however, that this acceptance of the general methodology does not imply that methodology has been applied to the determination of

Reference Tariffs either appropriately or with the required degree of technical rigour and substantiation.

4.2.4 Responses to Submissions on the Draft Decision

No submissions were made on the Draft Decision in respect of the general methodology used by CMS to determine Reference Tariffs.

4.2.5 Required Amendments to the Access Arrangement

The Regulator considers that the general methodology used by CMS to determine Reference Tariffs is consistent with the requirements of the Code and no amendments to the Access Arrangement are required in this respect.

4.3 INITIAL CAPITAL BASE

4.3.1 Access Code Requirements

As part of an assessment of the first Access Arrangement for an existing covered pipeline, the Regulator is required by the Code to approve a value of the assets making up the pipeline (an Initial Capital Base). The Initial Capital Base is then treated under the Code as an historical cost that is carried forward to future regulatory periods by adjusting for depreciation, new Capital Expenditure and, where appropriate, redundant assets.

Sections 8.10 and 8.11 of the Code state the principles for establishing the Initial Capital Base. These principles apply to the proposed Access Arrangement for the Parmelia Pipeline.

Section 8.10 of the Code requires that a range of factors be considered in establishing the Initial Capital Base. These factors relate generally to comparative analysis of different valuation techniques, consideration of reasonable expectations of interested parties, and economically efficient utilisation of gas resources.

Section 8.11 of the Code states that the Initial Capital Base for covered pipelines that were in existence at the commencement of the Code normally should not fall outside the range bounded by the Depreciated Actual Cost (DAC)³ of pipeline assets and a Depreciated Optimised Replacement Cost (DORC) for the assets.

4.3.2 Access Arrangement Proposal

CMS's determination of the Initial Capital Base of the Parmelia Pipeline is described in section 4.1 of the Access Arrangement Information.

CMS adopted a Depreciated Optimised Replacement Cost (DORC) methodology as the basis for the determination of the Initial Capital Base for the Parmelia Pipeline.

³ The term "Depreciated Actual Cost" is here given the meaning of section 8.10(a) of the Code as "the value that would result from taking the actual capital cost of the covered pipeline and subtracting the accumulated depreciation for those assets charged to Users (or thought to have been charged to Users) prior to the commencement of the Code".

CMS estimated the Optimised Replacement Cost (ORC) of the pipeline to be in the range \$170 million to \$253 million, estimated as the sum of ORC of the main pipeline (\$157 million to \$240 million), the value of other capital assets (\$9 million), and the value of working capital (\$4.27 million). The range of ORC values and a range of values for asset life were applied as input parameters into a Monte Carlo simulation to determine a probabilistic estimate of the DORC. The simulation used triangular probability distributions for parameters of ORC and asset life, based around most-likely values of \$210 million for the ORC (with a range of \$170 million to \$253 million) and 60 years for asset life (with a range of 42 to 80 years). The probabilistic estimate of the DORC was not provided in the Access Arrangement, but was provided to the Regulator in response to a subsequent request for information. The estimate indicated a most likely DORC value of approximately \$114 million, with a range of estimates of approximately \$60 million to \$160 million.

4.3.3 Draft Decision

In assessing the value of the Initial Capital Base proposed by CMS, the Regulator considered several alternative valuation methodologies, the valuations that arise from these methodologies, and the advantages and disadvantages of each methodology and valuation in the context of the Parmelia Pipeline. In addition, the Regulator critically evaluated the DORC valuation submitted by CMS.

The lower bound on an acceptable value for the Initial Capital Base was determined to be an Optimised Deprival Value, calculated as the net present value of cash flows under an assumption of continuation of current gas transportation contracts for the remaining life of the principal pipeline assets. That is, ongoing throughput of approximately 30 TJ/day at an average charge of \$0.55/GJ. The resultant estimate of the Optimised Deprival Value was \$36.1 million.

The upper bound for the Initial Capital Base was determined to be the DORC value of the Parmelia Pipeline. Determination of a DORC value was difficult in the context of the Parmelia Pipeline, which is currently operated at substantially less than maximum capacity with no definite prospect of being operated at capacity in the future. Optimisation of assets requires nomination of a service capacity. For assets that are used at substantially less than capacity and which may be regarded as largely redundant, an optimal configuration of replacement assets may accommodate a lower service capacity than existing assets. CMS did not provide substantiated forecasts of future throughput for the Parmelia Pipeline. In order to determine a basis for a DORC valuation in the absence of any substantiated forecasts, the Regulator assumed a service capacity of optimised assets of 60 TJ/day to the Perth metropolitan area, and 20 TJ/day between Perth and Pinjarra, being approximately twice the current level of utilisation of the pipeline system. The DORC value for this configuration of pipeline was estimated to be \$65.3 million.

On the basis of the information available to the Regulator at the time of drafting of the Draft Decision, the acceptable range of values for the Initial Capital Base was therefore determined to be \$36.6 million to \$65.8 million, including a reasonable allowance for working capital determined by the Regulator as \$0.5 million

In nominating a reasonable value for the Initial Capital Base within the acceptable range, the Regulator gave consideration to the interests of CMS and Users, including CMS's expectations of market growth for the pipeline and the tariffs that will arise from particular

values assigned to the Initial Capital Base. The Regulator concluded that a value of \$62.5 million represents an acceptable balance of interests between CMS and Users as this value allows for some expectations of market growth to be reflected in the asset value while not resulting in an increase in tariffs above the average tariffs under existing contracts. However, the Regulator noted that this value is higher than would be justified on the basis of current throughput. The Regulator therefore determined that the value of \$62.5 million will only be accepted if the Access Arrangement is amended to include a Redundant Capital Policy that provides for the Capital Base to be reduced at the end of the Access Arrangement Period if expectations of market growth are not realised.

In view of the above, the Access Arrangement was considered to not meet the requirements of the Code in respect of valuation of the Initial Capital Base. The required amendments to the Access Arrangement and Access Arrangement Information were as follows.

Valuation of the Initial Capital Base

Draft Decision Amendment 21

The value of the Initial Capital Base used for the purposes of calculating Reference Tariffs should be altered to a value of \$62.5 million, including a working capital component of \$0.5 million.

Redundant Capital Policy

Draft Decision Amendment 22

The Access Arrangement should be amended to include a Redundant Capital Policy that provides for the Capital Base to be reduced at the end of the Access Arrangement Period if the expectations of market growth are not realised.

4.3.4 Responses to Submissions on the Draft Decision

- Australian Pipeline Industry Association

Perhaps the most fundamental flaw in the Draft Decision is the apparent prejudice by the Regulator on the desired outcome from the tariff review. This is demonstrated in the statement (A18) that “The Regulator considers that CMS should be provided with the opportunity to expand the market for services on the Parmelia Pipeline and have this reflected in the Capital Base, subject to, inter alia, the higher value of the Initial Capital Base not giving rise to Reference Tariffs above the current average tariff for the Parmelia Pipeline.” This implies that the entire process for the Parmelia Draft Decision was based on the assumption of lower prices for customers, rather than an objective assessment based on the principles developed and agreed under the National Access Code. This prejudice of outcomes is also apparent on page A19 which states “A tariff of marginally less than \$0.55/GJ is consistent with the reasonable expectations of Users that regulation will provide for an overall reduction in tariffs.” The purpose of the National Access Code is to balance the needs of Service Providers and Users through an objective and impartial application of the Code principles, not “...provide for an overall reduction in tariffs.”

Under the Code, Service Providers are entitled to recover “efficient costs”. Any constraint on the ability to recover such costs is inconsistent with the Code. As the overarching principle used to arrive at the Reference Tariff is lower consumer costs, the methodology used is nothing more than a device to justify the predetermined answer, and the asset valuation methodology has been chosen because it produces the Reference Tariff desired by the Regulator. The outcome is clearly inconsistent with the Code as it does not provide the Service Provider the opportunity “...to earn a stream of revenue that recovers the costs of delivering the Reference Service over the expected life of the assets used in delivering that Service, to replicate the outcome of a competitive market, and to be efficient in level and structure.”

- Egis Consulting

Egis Consulting questioned the Regulator's assessment of the ORC and DORC estimates for the Parmelia Pipeline. The views and concerns raised by Egis consulting and outlined in detail in their submission⁴ are as follows.

- The derivation of an ORC value on the basis of a maximum throughput of 60 TJ/day makes no provision for future increases in gas throughput beyond this level. This is contrary to information (cited and reproduced in the Egis Consulting submission) that suggest Western Australia's gas consumption will increase substantially over the remaining life of the Parmelia Pipeline.
- The Regulator's assessment of the ORC value of an hypothetical 60 TJ/day pipeline (based on a "telescopic" 10 inch and 6 inch pipeline configuration) may be too low due to: being based on an under-specification of flanges, valves fittings etc.; under estimation of the number of mainline valves and isolation valves required for pipeline construction to Australian Standards; under estimation of the cost of metering stations; and under estimation of EPCM costs.
- Even if a pipeline capacity of 60 TJ/day specification was to be accepted, the pipeline configuration on which the ORC value is based may be inappropriate due to not allowing sufficient line pack to meet the requirements of end users in an emergency or shut down situation, and to not allowing input of gas into the pipeline south of the single compressor.

- CMS

The Draft Decision limits the throughput of the Parmelia Pipeline to 60 TJ/day for regulatory purposes. This value of throughput is approximately half of the pipelines historical maximum capacity.

Because future load is uncertain, it is reasonable to consider a range of future load profiles to yield a range of values for the Initial Capital Base. The Draft Decision in effect does this. It assigns a single value to the Initial Capital Base based on a particular future load profile, then addresses the impact of other load profiles on the Initial Capital Base.

However, Amendment 22 (requiring a redundant capital policy) is asymmetric:

- the Capital Base must be reduced if actual throughput is lower than forecast;
- there is no provision to increase the Capital Base if actual throughput is higher than forecast.

This asymmetry is:

- unfair to the Parmelia Pipeline;
- inconsistent with the Optimised Deprival Value methodology adopted by the Regulator for determining the Initial Capital Base; and
- contravenes the intent of sections 8.1(b), 8.1(d), 8.1(f), 8.10(h), and 8.44 of the Code.

Conventional Optimised Deprival Value methodology ascribes to an asset a value which is the lower of its replacement cost and the present value of the asset's future net income. If this methodology is to be applied to determine a never to be reset clamp on the future value of the Parmelia Pipeline, then the clamp should be replacement cost and not a current estimate of the value of future income. Replacement value is comparatively deterministic, whereas the value of future income can change dramatically with changing market circumstances.

The valuation of the Initial Capital Base is contrary to section 8.1(b) of the Code which states that Reference Tariffs should be set on the basis of "replicating the outcome of a competitive market". In a competitive market, tariffs would be set by the opportunity cost faced by an efficient new entrant. An efficient new entrant would not reasonably be constrained to an artificial regulatory throughput limit of approximately half of its pipeline capacity. Consequently, the value of an efficient new entrant's pipeline could be determined on the basis of its throughput capability, and not some substantially lower value. Thus

⁴ The submission is available from *OffGAR* and from the *OffGAR* web site and the detail of the submission is not reproduced in this document.

the 60 TJ/day limit should not apply to the determination of the Initial Capital Base for the Parmelia Pipeline.

The valuation of the Initial Capital Base is contrary to section 8.1(d) of the Code which states that Reference Tariffs should not distort investment decisions in pipeline transportation systems or in upstream and downstream industries. The Regulator has taken a “market value” approach in determining the Initial Capital base by the use of the Optimised Deprival Value methodology. Setting an upper limit of \$62.5 million on the Capital base has a substantial influence on the pipeline’s value. If CMS is successful in increasing the throughput of the Parmelia Pipeline to any party wishing to develop a second Pilbara to South West pipeline, CMS should not be encumbered by a regulated asset value which is substantially below market value. This restriction in asset value would in turn distort investment decisions by both CMS and potential future purchasers of the Parmelia Pipeline.

The valuation of the Parmelia Pipeline is contrary to section 8.1(f) of the Code which states that Reference Tariffs should be designed with a view to providing an incentive to the Service Provider to reduce costs and to develop the market for Reference Services and other services. If the regulated asset value is based on a value of pipeline capacity which is artificially clamped at approximately half of historical and realisable capacity, CMS should, as a prudent custodian of its shareholders’ funds, take a very circumspect view of any further investment of its own in either the existing Parmelia Pipeline or any other gas or electricity infrastructure projects. The Code explicitly states (section 3.26) that CMS is not obliged to fund any new capital works to extend or expand the Parmelia Pipeline. However, CMS would be constrained in its ability to develop its business if it were forced to rely exclusively on capital contributions from Users to fund further development of the Parmelia Pipeline. Regulatory undervaluation of the Parmelia Pipeline therefore serves to substantially compromise the development of the market for Reference Services and other services.

Section 8.10(h) of the Code states that the Initial Capital Base should be set with consideration given to “the impact on the economically efficient utilisation of gas resources”. The points regarding sections 8.1(b), 8.1(d) and 8.1(f) of the Code identify that ignoring the possibility of the Parmelia Pipeline’s throughput exceeding 60 TJ/day will lead to inefficient utilisation of resources.

The Draft Decision states (section 7.3.3 page B59) that a DORC valuation is not appropriate for valuing the Initial Capital Base of the Parmelia Pipeline. However as identified above, replacement cost represents the reasonable ceiling asset value obtained from an Optimised Deprival Value methodology.

The Draft Decision provides (section 7.3.4) the basis for determining a DORC valuation, and mandates a DORC value of \$65 million for a “virtual” 60 TJ/day (maximum) pipeline defined by the Regulators consultant. When the DORC for the “virtual pipeline” is scaled to reflect the Parmelia Pipeline “as built”, a DORC value of approximately \$123 million is obtained.⁵ This value is generally comparable to the most likely DORC value of \$114 million proposed in the Parmelia Pipeline Access Arrangement Information.

As identified above, the actual throughput of the Parmelia Pipeline in the early 1980s was around 120 TJ/day. If new gas transport opportunities are realised through new discoveries in the Perth basin, the realisation of the Parmelia Pipeline Northern Extension, and/or development of the Mondarra gas storage field, CMS could (on the basis of economic viability) re-install compression which was removed during the 1990s and the pipeline would transport gas at rates equalling or exceeding its historical maximum. It is clear that there is a substantial divergence between the actual and regulated pipeline maximum throughputs. It is also clear that if actual pipeline throughputs exceed 60 TJ/day, one of the key assumptions underpinning the Optimised Deprival Valuation methodology (i.e. that the present value of earnings can exceed replacement cost) will be violated.

For the above reasons, CMS have proposed:

- i. the Initial Capital Base be set at \$114 million, which is the most likely value of “as built” DORC as established by CMS (which is supported by the DORC value of a small capacity pipeline as described in the Draft Decision and if converted to a 14 inch pipeline) and which corresponds to the widely published market valuation of the time;

⁵ This calculation involved converting the DORC value derived by the Regulator for a 10 inch pipeline to a unit rate in dollars per inch of pipeline diameter per kilometre of pipeline, then converting this unit rate to a 14 inch diameter pipeline, which is the size of the current Parmelia Pipeline.

- ii. the current Capital Base be set at \$62.5 million under the Redundant Capital Policy (i.e. \$51.5 million be assigned as Redundant Capital for the first Access Arrangement Period);
- iii. the amount of redundant Capital be revised upwards or downwards on the basis of actual throughput (in petajoules) compared to the projected total throughput over the Access Arrangement Period.

The submissions on the Regulator's Draft Decision as to the valuation of the Initial Capital Base addressed the following general issues.

- A Reference Tariff not exceeding current transmission charges as a criterion of a balance of interests between the Service Provider and Users.
- Derivation of ORC and DORC values based on a pipeline capacity less than the capacity of the existing pipeline.
- Inaccuracies in estimation of the ORC and DORC values.
- Asymmetry and inequity in the effect of a Redundant Capital Policy.
- Valuation of less than a DORC value of a 120TJ/day pipeline being inconsistent with allowing the Service Provider to recover efficient costs of operation and replicating the outcome of a competitive market.
- Valuation of less than a DORC value of a 120TJ/day pipeline discouraging further investment in the pipeline.
- Valuation of less than a DORC value of a 120TJ/day pipeline motivating the inefficient use of gas.

These issues and the related comments made in submissions are addressed in turn below.

Reference Tariff not Exceeding Current Transmission Charges

In considering the value to be established for the Initial Capital Base, the Regulator considered the interests and expectations of both the Service Provider and Users. It was considered that Users could reasonably expect that the Initial Capital Base would not be attributed a value that, in conjunction with other aspects of the setting of Reference Tariffs, would not result in an increase in charges for gas transmission. This expectation of Users was taken into account in ascribing a value to the Initial Capital Base by allowing a value that is greater than would be justified on the basis of current levels of asset utilisation, but which is not so high as to result in Reference Tariffs that are higher than the average charge for gas transmission at the time of the Draft Decision.

The determination of an Initial Capital Base for an existing pipeline (and particularly one of the age of the Parmelia Pipeline) requires the Regulator to exercise judgement, taking account of the matters prescribed in section 8.10 of the Code. These matters include the reasonable expectations of the Service Provider and Users. The Regulator maintains that, in the context of the Parmelia Pipeline, the criterion that Users should not face higher charges as a result of a pipeline being bought under the Code is an appropriate application of these factors, and results in a reasonable balance of interests between the relevant parties.

Similarly, the Australian Pipeline Industry Association's concern that, by selecting a value less than DORC, the Regulator is not permitting the Service Provider to recover the "efficient

cost” or providing the service (as referred to in section 8.1 of the Code) appears to confuse the operation of sections 8.10 and 8.11 of the Code. These sections, in effect, require the Regulator to determine the “efficient cost” associated with these assets, taking account of a number of factors, and do not create a presumption that DORC is the correct value. Accordingly, it cannot follow that selecting a value for an existing pipeline that is less than DORC is somehow depriving the Service Provider of recovering efficient costs.

ORC and DORC Values Based on a Reduced Pipeline Capacity

The Regulator is of the view that the optimisation process undertaken as part of deriving a DORC value should address the “optimal” sizing and configuration of pipeline assets for supply of a quantity of transmission services for which the pipeline may reasonably expect to be used. With the Parmelia Pipeline, gas throughput has averaged approximately 30 TJ/day over the last few years with no substantiated prospect of large increases in the future. It would therefore not have been unreasonable for the Regulator to estimate a DORC value on the basis of a pipeline of 30 TJ/day capacity. However, in recognition of some potential increase in throughput, the Regulator contemplated an increase in throughput by approximately 100 percent and determined an estimate of the DORC value of the pipeline assets based on a future capacity requirement of 60 TJ/day.

The Regulator notes that CMS did not provide any substantiated estimate of throughput forecasts in support of the Access Arrangement, nor subsequent to issue of the Draft Decision, that would provide cause for the Regulator to consider a higher potential pipeline throughput in estimating a DORC value. While Egis Consulting has in its submission cited information indicating an increase in gas use in the South West of Western Australia, this information does not substantiate a claim that this higher gas use would translate into higher demand for gas transmission through the Parmelia Pipeline.

Redundant Capital Policy

CMS has argued that a Redundant Capital Policy that may result in the Capital Base being reduced at the end of the Access Arrangement Period is inequitable as there is no complementary mechanism to reward the Service Provider with an increase in the value of the Capital Base if throughput is increased to a level greater than was considered in establishing the Initial Capital Base. CMS has suggested that the Capital Base be set at a higher level, \$114 million, with \$51.5 million assigned as Redundant Capital at the commencement of the first Access Arrangement Period and the remaining \$62.5 million considered as the Capital Base for the purposes of setting Reference Tariffs in the current Access Arrangement Period. The amount of redundant capital could then be revised upwards or downwards on the basis of realised throughput.

The Regulator maintains the position adopted in the Draft Decision, being the valuation of the Initial Capital Base at \$62.5 million contingent upon the Access Arrangement being amended to include a Redundant Capital Policy that will see the value of the Capital Base reduced if projections of increases in gas throughput are not realised. Without the Redundant Capital Policy the Regulator considers that a valuation of the Initial Capital Base at \$62.5 million could not be justified and that another lesser valuation would need to be adopted. The reasons for maintaining this position are as follows.

First, the valuation of the Capital Base as set out in the Regulator’s Draft Decision already provides CMS with the prospect of “up side” from market growth. This is because the Initial

Capital Base has been based upon the assumption that annual throughput will approximately double from current levels over the Access Arrangement Period. The Regulator's willingness to base its derivation of the Initial Capital Base upon a doubling of throughput from current levels is contingent upon the Access Arrangement including a Redundant Capital Policy that ensures that CMS bears the risk associated with this demand growth being achieved. Without such a policy, the Regulator considers that it would have been appropriate to assume that the current levels of throughput continue into the future, which would have resulted in an Initial Capital Base of about \$36.6 million being determined. The difference between this figure and the Initial Capital Base determined by the Regulator of (of \$62.5 million) can be interpreted as the potential upside to CMS.

Secondly, the value determined for the Initial Capital Base is also considered consistent with a reasonable expectation of the Service Provider. This value of \$62.5 million is considered (on the basis of information available to the Regulator) to be close to the price at which the regulated pipeline assets were purchased by CMS. Furthermore (and also on the basis of information available to the Regulator), it is understood that this value is also likely to substantially exceed the Depreciated Actual Cost of the pipeline assets, which the Code stipulates should normally form the lower range for the value of existing pipelines.

In considering the requirement for a Redundant Capital Policy, the Regulator has given recognition to the provisions of the Code relating to capital redundancy (sections 8.27 to 8.29). Section 8.27 of the Code provides for an amount (Redundant Capital) to be removed from the Capital Base, with effect from the commencement of the next Access Arrangement Period, so as to:

- (a) ensure that assets which cease to contribute in any way to the delivery of Services are not reflected in the Capital Base; and
- (b) share costs associated with a decline in the volume of sales of Services provided by means of the Covered Pipeline.

Section 8.27 is ambiguous in respect of whether Redundant Capital may comprise a portion of the value of the Capital Base as opposed to a value ascribed to particular assets, and also as to whether a "decline in the volume of sales" may refer to a decline relative to a forecast, or more strictly to a decline in actual sales. For the purposes of a Redundant Capital Policy for the Parmelia Pipeline, the Regulator considers that, in each case, the former interpretation is consistent with a reasonable balance of interests of the Service Provider, Users and Prospective Users, as the Regulator is required to take into account under section 2.24 of the Code. Such interpretation is consistent with the interests of the Service Provider inasmuch as it allows for a value for the Initial Capital Base that is greater than the Regulator would be prepared to accept in the absence of a Redundant Capital Policy, and consistent with the interests of Users and Prospective Users in as much as it reduces the prospect of higher Reference Tariffs if the forecast of higher throughput (on which the value of the Initial Capital Base is premised) is not realised. Moreover, a Redundant Capital Policy developed on the basis of such interpretation is consistent with the objective for a Reference Tariff Policy set out in section 8.1(f) of the Code of providing an incentive to the Service Provider to develop the market for Reference Services and other services.

In making the above interpretation of section 8.27 of the Code, the Regulator has, for the purpose of meeting the requirement of section 2.24 of the Code to take into account the interests of the Service Provider Users and Prospective Users, taken into account the

provisions of section 36(3) of the *Gas Pipelines Access (Western Australia) Act 1998* and section 7(1) of the Appendix to Schedule 1 of this Act.

In the absence of a valid proposal from CMS for a Redundant Capital Policy since issue of the Draft Decision, the Regulator has determined an alternative policy.

The Regulator requires that the Redundant Capital Policy operate to reduce the value of the Capital Base at the commencement of the next Access Arrangement Period if throughput at the end of the current Access Arrangement Period averages less than 50 TJ/day. This is consistent with the basis for determination of the Initial Capital Base, being the Capital Base value that corresponds to a 100 percent load factor tariff for the Firm Reference Service of \$0.55/GJ (exclusive of any pass through of goods and services tax liability), given assumptions as to other costs taken into account in the Reference Tariff calculation and an assumed average throughput over the Access Arrangement Period of 50 TJ/day.

The Redundant Capital Policy should operate in such a manner that, should average daily throughput in the Parmelia Pipeline at the end of the Access Arrangement Period be less than 50 TJ/day, an amount of the Capital Base will be deemed to constitute Redundant Capital within the meaning of section 8.27 of the Code. The value of Redundant Capital should be determined such that the real value of the total tariff for the Firm Reference Service (at a 100 percent load factor) in the next Access Arrangement Period, under similar cost and rate-of-return assumptions and tariff calculation methodology as used for the current Access Arrangement Period, would not exceed \$0.605/GJ in real terms (1999 dollar value), inclusive of goods and services tax (equivalent to \$0.55/GJ exclusive of goods and services tax pass through).

The value of Redundant Capital should be determined as a linear function of throughput as follows.⁶

$$\begin{array}{l}
 \text{RedundanCapital} \\
 \text{atend of} \\
 \text{Access Arrangement Period} \\
 (\$millionat1 July1999)
 \end{array}
 =
 \begin{cases}
 60.8, \text{ for throughput less than } 18.5 \text{ TJ/day} \\
 96.3 - 1.94 \times \left(\frac{\text{Average Daily Throughput}}{\text{Access Arrangement Period}} \right), \text{ for throughput between } 19.5 \text{ and } 49.5 \text{ TJ/day or} \\
 \text{zero, for throughput greater than } 49.5 \text{ TJ/day}
 \end{cases}$$

The Redundant Capital Policy should provide for Redundant Capital to be added back into the Capital Base in proportion to an increased throughput at the time of subsequent review of the Access Arrangement. The policy may allow for the value of any Redundant Capital

⁶ Based on assumptions for the next Access Arrangement period of a residual Capital Base of \$60,776,000 operating expenditure of \$3,474,000 per annum, Capital Expenditure of \$1,010,000 per annum, a rate of return of 8.1 percent (pre-tax real), and straight line depreciation of the Capital Base. Assumptions as to Operating and Capital Expenditure are based on the average annual costs for the current Access Arrangement Period.

added back into the Capital Base to have been increased annually on a compounded basis by the Rate of Return from the time the Redundant Capital value was removed from the Capital Base, consistent with the treatment of Redundant Capital under Section 8.28 of the Code.

Inaccuracies in Estimation of the ORC and DORC Values

In making an assessment of a DORC valuation of the Parmelia Pipeline, the Regulator utilised a preliminary estimate of a DORC value of a Pipeline of 60 TJ/day capacity. The Regulator concedes that this was an estimate based on an assumption as to the optimal sizing of a replacement pipeline. However, this value was not directly relevant to the valuation of the Initial Capital Base, other than in providing an upper bound on the value ultimately selected. As a consequence, the Regulator has not sought to address potential inaccuracies in the estimation of the DORC value.

Efficiency of an Asset Valuation of Less than DORC

Criteria of efficiency do not provide a guide to the valuation of an existing asset other than in providing a rationale for an upper bound on the valuation. The value ascribed to an asset should not be so high as to result in Reference Tariffs that motivate duplication of pipelines and substantial under-utilisation of capacity. Tariffs also should not be so high that Users would be better off if the existing assets were scrapped and replaced with new assets. This is the rationale for the upper bound value of the Initial Capital Base specified in section 8.11 of the Code, being a DORC valuation.

This efficiency argument for an upper bound of DORC on an Initial Capital Base does not mean that any value less than DORC is inefficient. Indeed, a static concept of efficiency would suggest that a value should be set at the lowest level commensurate with the assets not being diverted to alternative uses, that is the scrap value. However, such a harsh treatment of existing assets may be contrary to criteria of dynamic efficiency through creating an expectation that a similar regulatory stance may be taken on other matters in the future after new investment has become “sunk”, and so deter new investment.

Efficiency criteria are useful in establishing bounds for the valuation of existing assets, but not necessarily in selecting a particular value within the range of these bounds. Consequently determination of an Initial Capital Base within “efficient” bounds is largely a matter of judgement, for which the factors set out in section 8.10 of the Code provide guidance to the Regulator.

The Regulator is of the view that the value of \$62.5 million for the Initial Capital Base is within the bounds that can be established by efficiency criteria.

Incentives for Further Investment

The valuation, for regulatory purposes, of the Parmelia Pipeline should not affect incentives for further investment in the pipeline. It is only in respect of existing assets that the Regulator is required to set a value for the Initial Capital Base, within a range and having regard to fairly broad criteria. The Code requires *new investment* to be valued at the actual cost (section 8.15 of the Code), unless the investment is imprudent (section 8.16(a)) or fails to pass one of the roll-in tests (section 8.16(b)). In addition, once new investment is included in the Capital Base, it can only be “removed” or “written down” if the redundant capital provisions of the Code are invoked (sections 8.27 to 8.29), which include a number of

safeguards for the Service Provider. Accordingly, the Code provides a degree of certainty over the valuation of new investment.

Incentives for Inefficient Use of Gas

CMS has argued that the value proposed by the Regulator for the Initial Capital Base of the Parmelia Pipeline will result in the inefficient use of gas resources.

Efficient use of gas vis a vis other energy resources would require that Users of the Parmelia Pipeline, and ultimately the end users of gas, should pay at least the avoidable cost of gas transportation, which is the (forward looking) cost that the Service Provider could avoid by ceasing to provide the service to that customer. This avoidable cost would not include capital costs arising from sunk investment. Consequently, in order to motivate the efficient use of gas, the valuation of the capital base and the allocation of resultant capital costs should be designed to minimise the divergence in gas usage from the efficient levels that would occur if Users paid only the avoidable cost.

The criterion would generally require that the valuation of the Capital Base be as low as possible while still being consistent with providing the signals to investors in gas transmission assets that motivate a longer-term efficient level of investment in such assets. There is no basis for an argument that a value of the Initial Capital Base of less than a DORC value of a 120 TJ/day pipeline will result in an inefficient use of gas resources.

4.3.5 Required Amendments to the Access Arrangement

The Regulator maintains requirements as indicated in the Draft Decision for amendment of the Access Arrangement in respect of the Initial Capital Base and Redundant Capital Policy. The required amendments are as follows.

Amendment 22 (was Draft Decision Amendment 21)

The Access Arrangement and Access Arrangement Information should be amended to reflect a value of the Initial Capital Base of \$62.5 million, including a value of working capital of \$0.5 million.

Amendment 23 (was Draft Decision Amendment 22)

The Access Arrangement should be amended to include a Redundant Capital Policy that provides for an amount of the Capital Base to be deemed to constitute Redundant Capital within the meaning of section 8.27 of the Code in the event that average daily throughput in the Parmelia Pipeline at the end of the Access Arrangement Period be less than 50 TJ/day. The value of Redundant Capital should be determined as a linear function of throughput as follows.

$$\begin{array}{l}
 \text{Redundan Capital} \\
 \text{at end of} \\
 \text{Access Arrangement Period} \\
 (\$ \text{million at 1 July 1999})
 \end{array}
 =
 \begin{cases}
 60.8, \text{ for throughput less than } 18.5 \text{ TJ/day} \\
 96.3 - 1.94 \times \left(\begin{array}{l} \text{Average Daily Throughput} \\ \text{at end of} \\ \text{Access Arrangement Period} \\ \text{(TJ)} \end{array} \right), \text{ for throughput between } 19.5 \text{ and } 49.5 \text{ TJ/day, or} \\
 \text{zero, for throughput greater than } 49.5 \text{ TJ/day}
 \end{cases}$$

The Redundant Capital Policy should provide for Redundant Capital to be added back into the Capital Base in proportion to an increased throughput at the time of subsequent review of the Access Arrangement. The policy may allow for the value of any Redundant Capital added back into the Capital Base to have been increased annually on a compounded basis by the Rate of Return from the time the Redundant Capital value was removed from the Capital Base, consistent with the treatment of Redundant Capital under Section 8.28 of the Code.

4.4 CAPITAL EXPENDITURE

4.4.1 Access Code Requirements

Sections 8.15 to 8.21 of the Code provide for Capital Expenditure on a covered pipeline and associated regulated assets to be incorporated into the Capital Base of the pipeline, and for forecast Capital Expenditure to be considered in determination of Reference Tariffs.

The Capital Base of a covered pipeline may be increased from the commencement of a new Access Arrangement Period to recognise additional capital costs incurred in constructing New Facilities for the purpose of providing services, subject to the New Facilities Investment meeting certain criteria.

Section 8.16 of the Code sets out criteria that must be met by any New Facilities Investment if the actual capital cost of that investment is to be added to the Capital Base. These criteria are:

- (a) the amount of the capital cost does not exceed the amount that would be invested by a prudent Service Provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering services; and
- (b) one of the following conditions is 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 Regulator that the New Facility has system-wide benefits that, in the 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.

Section 8.17 of the Code sets out two factors that the Regulator must consider in determining whether Capital Expenditure meets the criteria set out in section 8.16:

- (a) whether the New Facility exhibits economies of scale or scope and the increments in which capacity can be added; and
- (b) whether the lowest sustainable cost of delivering Services over a reasonable time frame may require the installation of a New Facility with capacity sufficient to meet forecast sales of services over that time frame.

Section 8.18 of the Code allows for a Reference Tariff Policy to state that the Service Provider will undertake New Facilities Investment that does not satisfy the requirements of section 8.16, and for the Capital Base to be increased by that part of such investment which does satisfy section 8.16 (the Recoverable Portion). Section 8.19 of the Code allows for an amount of the balance of the investment to be assigned to a Speculative Investment Fund, and to be added to the Capital Base at some future time if the criteria of section 8.16 come to be met. Section 8.19 also sets out the manner in which the value of the Speculative Investment Fund is determined at any time.

Section 8.20 of the Code provides for Reference Tariffs to be determined on the basis of New Facilities Investment that is forecast to occur within the Access Arrangement Period provided that the investment is reasonably expected to pass the requirements in section 8.16 when the investment is forecast to occur. This does not, however, mean that the forecast New Facilities Investment will automatically be added to the Capital Base after it has occurred (section 8.21). Rather, the Regulator will assess whether the investment meets the criteria of section 8.16 of the Code either at the time of review of the Access Arrangement or, if asked to do so by the Service Provider, at the time at which the investment takes place.

Section 8.22 of the Code requires that either the Reference Tariff Policy should describe, or the Regulator shall determine, how the New Facilities Investment is to be determined for the purposes of additions to the Capital Base at the commencement of the subsequent Access Arrangement Period. This includes whether (and how) the Capital Base at the commencement of the next Access Arrangement Period should be adjusted if the actual New Facilities Investment is different from the forecast New Facilities Investment.

Sections 8.23 to 8.25 of the Code set out provisions for New Facilities Investment to be financed in whole or in part of capital contributions from Users, or from surcharges over and above Reference Tariffs to be levied on Users.

4.4.2 Access Arrangement Proposal

CMS’s forecast of Capital Expenditure over the term of the Access Arrangement is indicated in section 4.3 of the Access Arrangement Information and summarised as follows.

	Year				
	2000	2001	2002	2003	2004
Forecast Capital Expenditure (\$million)	3.75	3.35	0.75	1.55	0.85

The forecast Capital Expenditure was indicated in the Access Arrangement Information to be for replacement of miscellaneous capital equipment, enhancements of peripheral assets, utility systems and equipment. A further breakdown of Capital Expenditure was provided to the Regulator on a confidential basis.

4.4.3 Draft Decision

The Regulator made an assessment of the forecast Capital Expenditure on the basis of the confidential breakdown of expenditure provided by CMS. There were three principal issues of concern in respect of the expenditure forecast.

Firstly, forecast expenditure relating to compressor stations, some proportion of SCADA upgrades and electronic communications are linked to projected increases in pipeline throughput to 86 TJ/day for the entire Access Arrangement Period, an increase of approximately 187 percent over current throughput. The Regulator considered this throughput projection to be unsubstantiated and unlikely to be achieved.

Secondly, the forecast Capital Expenditure included expenditure on construction of new laterals without the necessary justification as required by the Code. The Regulator considered that the projections of Capital Expenditure do not adequately satisfy the requirements of the Code for such expenditure to be considered in the determination of Reference Tariffs.

Thirdly, the forecasts of Capital Expenditure make no provision for improvements in productivity and efficiency over the Access Arrangement Period. The forecast Capital Expenditure includes a “base” amount of \$250,000 per annum, relating mainly to miscellaneous capital equipment. The Regulator considered that this amount should be reduced annually by a factor that allows for increases in productivity and efficiency, and provides incentives for such productivity gains consistent with a CPI-X incentive mechanism.

The Access Arrangement was therefore considered to not meet the requirements of the Code in respect of forecasts of Capital Expenditure to be considered in determination of Reference Tariffs. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 23

Forecasts of Capital Expenditure should be revised in accordance with reasonable expectations of increased pipeline throughput over the Access Arrangement Period. Capital Expenditure required to accommodate pipeline throughput in excess of a reasonable expectation should be regarded as Speculative Investment within the meaning of section 8.19 of the Code and for the purposes of considering Capital Expenditure in the determination of Reference Tariffs.

Draft Decision Amendment 24

Expenditure on new lateral pipelines should be excluded from the forecasts of Capital Expenditure unless such expenditure is demonstrated to satisfy conditions set out in section 8.16(b) of the Code.

Draft Decision Amendment 25

Forecast Capital Expenditure includes a “base” amount of \$250,000 per annum, relating mainly to miscellaneous capital equipment. This amount should be reduced annually by a factor that allows for increases in productivity and efficiency, and provides incentives for such productivity gains consistent with a CPI-X incentive mechanism.

4.4.4 Responses to Submissions on the Draft Decision

- Australian Pipeline Industry Association

For the purpose of the Draft Decision, the Regulator has contemplated a throughput of around 30TJ/day, consistent with existing contracts, or a maximum throughput of 60 TJ/day, allowing for some market growth” (B85). The Regulator then requires forecasts of Capital Expenditure to be revised “in accordance with reasonable expectations of increased pipeline throughput over the Access Arrangement Period” and that “Expenditure on new lateral pipelines should be excluded from the forecasts of Capital Expenditure unless such expenditure is demonstrated to satisfy conditions set out in section 8.16(b) of the Code.” This creates considerable regulatory uncertainty as to the steps the Service Provider may be able to take in order to grow markets.

Section 8.15 of the Code provides for Capital Expenditure to be added to the Capital Base of a pipeline, and section 8.16 specifies the requirements that must be satisfied by the Capital Expenditure for this to occur. These provisions of the Code clearly place the onus on Services Providers to demonstrate to the Regulator that Capital Expenditure meets these requirements before it will be added to the Capital Base.

Section 8.20 provides for Capital Expenditure that is forecast to occur over an Access Arrangement Period to be considered in the determination of Reference Tariffs for that period. Again, the onus is on the Service Provider to satisfy the Regulator that the Capital Expenditure is reasonably expected to pass the requirements of section 8.16 of the Code at the time at which the Capital Expenditure is forecast to occur.

The Regulator does not consider that this process creates Regulatory uncertainty as to the ability of a Service Provider to have Capital Expenditure added to the Capital Base, nor as to the steps that the Service Provider may be able to take in order to grow markets. For the Parmelia Pipeline there is, however, a requirement on CMS to demonstrate that forecast Capital Expenditure meets the requirements set out in section 8.16 of the Code. This was not undertaken and hence the Regulator indicated requirements in the Draft Decision for the

proposed Capital Expenditure to be revised in accordance with reasonable expectations of increased pipeline throughput over the Access Arrangement Period, and for expenditure on new lateral pipelines to be excluded from the forecasts of Capital Expenditure unless such expenditure is demonstrated to satisfy conditions set out in section 8.16(b) of the Code.

CMS has not provided further information on throughput forecasts or Capital Expenditure to the Regulator subsequent to the Draft Decision. In the absence of such information, the Regulator will require the forecast of Capital Expenditure to be reduced in accordance with the Regulators assumptions in revising Reference Tariffs for the purposes of the Draft Decision.

- CMS

The Parmelia Pipeline is subject to the full rigour of competition. It competes directly with the DBNGP in the transmission market and with AlintaGas in the distribution market.

Both competitors enjoy economies of scale which are simply not available to the Parmelia Pipeline because of the marked differences in size and geographical extent between it and its competitors.

The Parmelia pipeline therefore does not need artificial incentives to operate more efficiently. Because of the differences in cost structures arising from the difference scales of operation of the Parmelia Pipeline and its competitors (i.e. both the DBNGP and AlintaGas hold a significant *ceteris paribus* competitive advantage because of their greater economies of scale), the Parmelia Pipeline can only compete on the basis of greater efficiency of utilisation of resources.

Section 8.10(i) of the Code states that the cost structures of competing pipelines should be considered when setting the Initial Capital Base for a pipeline. Correspondingly, it is appropriate to consider such cost structures when considering tariffs.

On this basis, the value of factor X should be set to zero. Real, rather than synthetic market discipline will ensure that future Parmelia Pipeline capex and opex will reflect the most efficient utilisation of resources.

CMS has not accounted for potential efficiency gains in forecasts of Capital Expenditure over the Access Arrangement Period, hence the Regulator's stated requirement for the Access Arrangement to be amended to reflect any such efficiency gains. CMS has objected to this requirement, arguing that competition in the markets for gas transmission and distribution will provide incentives for efficiency gains in Capital Expenditure and operating expenditure, and that an additional incentive for efficiency gains through a CPI-X mechanism of price control is unnecessary.

The submission from CMS indicates, in part, a misunderstanding of the role of a CPI-X mechanism of price control. A positive value of X in a CPI-X mechanism of price control would give rise a real reduction in Reference Tariffs over the Access Arrangement Period and thereby result in a sharing of benefits of productivity gains with Users.

The Regulator has noted CMS's objection to making projections of efficiency gains in Capital Expenditure. The Regulator also notes that, in accordance with the requirements of section 8.16 of the Code, an "efficiency test" will be applied to Capital Expenditure before it is rolled into the Capital Base at the commencement of the next Access Arrangement Period. Hence any overestimate of Capital Expenditure for the purposes of setting Reference Tariffs will have only a short term effect. In view of this, the Regulator will not require amendment of the Access Arrangement to reflect potential efficiency gains in Capital Expenditure.

4.4.5 Required Amendments to the Access Arrangement

Amendment 24 (was Draft Decision Amendment 23)

The Access Arrangement and Access Arrangement Information should be amended to reflect Capital Expenditure of \$5.05 million over the Access Arrangement Period, as follows (1999 \$million):

	2000	2001	2002	2003	2004
Minor Capital Expenditure	0.25	0.25	0.25	0.25	0.25
AlintaGas Interconnection	2.25	0	0	0	0.5
SCADA Master Station Upgrade	0	0	0.3	0	0
Building Move and Ringfencing	0.75	0	0	0	0
Total	3.25	0.25	0.55	0.25	0.75

4.5 OPERATING EXPENDITURE

4.5.1 Access Code Requirements

Section 8.36 of the Code defines Non-Capital Costs as the operating, maintenance and other costs incurred in the delivery of a Reference Service.

Section 8.37 of the Code provides for a Reference Tariff to recover all Non-Capital Costs (or forecast Non-Capital Costs, as relevant) except for any such costs that would not be incurred by a prudent Service Provider, acting efficiently, in accordance with accepted and good industry practice, and to achieve the lowest sustainable cost of delivering the Reference Service.

For the purposes of this Final Decision, Non Capital Costs are referred to as Operating Expenditure.

4.5.2 Access Arrangement Proposal

Forecast Operating Expenditure over the term of the Access Arrangement is indicated in section 5 of the Access Arrangement Information. These costs are divided into categories of:

- field controllable expenditure, comprising the Operating Expenditure related to routine day to day operations;
- major expense job expenditure, comprising the Operating Expenditure related to non-routine, intermittent, and/or special one off activities; and
- marketing and overhead costs.

The projected Operating Expenditure is as follows.

Independent Gas Pipelines Access Regulator

CMS forecast Non-Capital Costs (\$million)

	Year				
	2000	2001	2002	2003	2004
Field controllable expenditure (\$million)	2.114	2.231	2.231	2.231	2.231
Major expense job expenditure (\$million)	1.313	0.998	0.788	1.523	1.313
Marketing and overhead costs (\$million)	0.429	0.429	0.429	0.429	0.429
Total Operating Expenditure (\$million)	3.856	3.658	3.448	4.183	3.973

Cost items contributing to Operating Expenditure are listed in the Access Arrangement, however no itemised breakdown of costs was provided. A further breakdown of costs was provided to the Regulator by CMS on a confidential basis.

Operating Expenditure does not include costs of System Use Gas. It is proposed under section 15 of the General Terms and Conditions that these costs are passed on directly to Users as a charge in addition to transport tariffs. This matter is further discussed in section 5.6 of this Final Decision.

4.5.3 Draft Decision

The Regulator made an assessment of the forecast Operating Expenditure on the basis of the confidential breakdown of expenditure provided by CMS. The Regulator was satisfied that the forecast Operating Costs are reasonable with the exception of some costs (related to additional administrative and operational staff and equipment overhaul) that are linked to the high throughput projection of CMS for the Access Arrangement Period. CMS has projected increases in pipeline throughput to 86 TJ/day for the entire Access Arrangement Period, an increase of approximately 187 percent over current throughput. The Regulator considered this projected throughput to be unsubstantiated.

The Regulator noted that, as with Capital Expenditure, the forecast Operating Expenditure makes no provision for improvements in productivity and efficiency over the Access Arrangement Period. The forecast Operating Expenditure includes base amounts of field controllable expenditure and major expense job expenditure. It was determined that these amounts should be reduced annually by a factor that allows for increases in productivity and efficiency, and provides incentives for such productivity gains consistent with a CPI-X incentive mechanism.

In view of the above, the Access Arrangement was considered to not meet the requirements of the Code in respect of forecasts of Operating Expenditure to be considered in determination of Reference Tariffs. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 26

Forecasts of Operating Expenditure should be revised in accordance with reasonable expectations of increased pipeline throughput over the Access Arrangement Period.

Draft Decision Amendment 27

The forecast Operating Expenditure includes base amounts of field controllable expenditure and major expense job expenditure. These amounts should be reduced annually by a factor that allows for increases in productivity and efficiency, and provides incentives for such productivity gains consistent with a CPI-X incentive mechanism.

4.5.4 Responses to Submissions on the Draft Decision

- CMS

The Parmelia Pipeline is subject to the full rigour of competition. It competes directly with the DBNGP in the transmission market and with AlintaGas in the distribution market.

Both competitors enjoy economies of scale which are simply not available to the Parmelia Pipeline because of the marked differences in size and geographical extent between it and its competitors.

The Parmelia pipeline therefore does not need artificial incentives to operate more efficiently. Because of the differences in cost structures arising from the difference scales of operation of the Parmelia Pipeline and its competitors (i.e. both the DBNGP and AlintaGas hold a significant *ceteris paribus* competitive advantage because of their greater economies of scale), the Parmelia Pipeline can only compete on the basis of greater efficiency of utilisation of resources.

Section 8.10(i) of the Code states that the cost structures of competing pipelines should be considered when setting the Initial Capital Base for a pipeline. Correspondingly, it is appropriate to consider such cost structures when considering tariffs.

On this basis, the value of factor X should be set to zero. Real, rather than synthetic market discipline will ensure that future Parmelia Pipeline capex and opex will reflect the most efficient utilisation of resources.

CMS has not accounted for potential efficiency gains in forecasts of Operating Expenditure over the Access Arrangement Period, hence the Regulator's stated requirement for the Access Arrangement to be amended to reflect any such efficiency gains. CMS has objected to this requirement, arguing that competition in the markets for gas transmission and distribution will provide incentives for efficiency gains in Capital Expenditure and operating expenditure, and that an additional incentive for efficiency gains through a CPI-X mechanism of price control is unnecessary.

As noted above in relation to Capital Expenditure, the submission from CMS indicates, in part, a misunderstanding of the role of a CPI-X mechanism of price control. A positive value of X in a CPI-X mechanism of price control would give rise a real reduction in tariffs over the Access Arrangement Period and thereby result in a sharing of benefits of productivity gains with Users. The common approach of Australian regulators in setting a price control mechanism has been to set a value of X consistent with productivity gains and cost reductions forecast by Service Providers, particularly to reflect reductions in unit costs occurring as a result of increased throughput over a regulatory period. The Regulator's revision of tariffs presented in the Draft Decision took account of increasing throughput and reductions in unit costs through use of a Net Present Value approach to setting reference tariffs. The Regulator accepts that, for the Parmelia Pipeline, additional reductions in unit costs through productivity and efficiency gains are likely to be small and will, in any case, be passed on to

Users in the next Access Arrangement Period. In view of this, the Regulator will not require amendment of the Access Arrangement to reflect potential efficiency gains in Operating Expenditure.

4.5.5 Required Amendments to the Access Arrangement

CMS has not provided further information on throughput forecasts or operating expenditure to the Regulator subsequent to the Draft Decision. In the absence of such information, the Regulator will require the forecast of Operating Expenditure to be reduced in accordance with the assumptions made by the Regulator for the purposes of the Draft Decision.

Amendment 25 (was Draft Decision Amendment 26)					
The Access Arrangement and Access Arrangement Information should be amended to reflect total Operating Expenditure, including marketing and overhead costs, of \$17.372 million over the Access Arrangement Period, as follows (1999 \$million):					
	2000	2001	2002	2003	2004
Total Operating Expenditure	3.737	3.212	2.949	3.737	3.737

4.6 RATE OF RETURN

4.6.1 Access Code Requirements

Sections 8.30 and 8.31 of the Code state the principles for establishing the Rate of Return for an existing Covered Pipeline when a Reference Tariff is first proposed for a Reference Service. These principles apply to the proposed Access Arrangement for the Parmelia Pipeline.

Section 8.30 of the Code requires that the Rate of Return used in determining a Reference Tariff should provide a return which is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the Reference Service (as reflected in the terms and conditions on which the Reference Service is offered and any other risk associated with delivering the Reference Service).

Section 8.31 states that, by way of example, the Rate of Return may be set on the basis of a weighted average of the return applicable to each source of funds (equity, debt and any other relevant source of funds). Such returns may be determined on the basis of a well accepted financial model, such as the Capital Asset Pricing Model. In general, the weighted average of the return on funds should be calculated by reference to a financing structure that reflects standard industry structures for a going concern and best practice. However, other approaches may be adopted where the Regulator is satisfied that to do so would be consistent with the objectives contained in section 8.1 of the Code, as listed in section 4.1 of this Final Decision.

Overall, the Regulator is required to ensure that the Rate of Return used in determining Reference Tariffs should be at a level that would be sufficient to motivate the Service Provider’s investment in the pipeline assets, but which is not unduly in excess of this level.

4.6.2 Access Arrangement Proposal

CMS utilised a net present value methodology for the determination of Total Revenue and Reference Tariffs and allowed for by section 8.4 of the Code and discussed in section 0 of this Final Decision. The Rate of Return enters the tariff calculation as a discount rate, set equal to the Weighted Average Cost of Capital (WACC).

CMS's calculation of the WACC is described in section 7.4 of the Access Arrangement Information.

Capital Asset Pricing Model (CAPM) theory was used to derive a WACC value for the Parmelia Pipeline. The WACC value was derived as a probabilistic estimate using the Monte Carlo simulation technique with triangular probability distributions for input variables. Parameters of the probability distributions are indicated below. The probabilistic estimate of the WACC (pre-tax, real) has a most likely value of 16 percent, within a range of approximately 10 to 23 percent. CMS did not use this probabilistic estimate of the WACC in the stochastic calculation of Reference Tariffs, but used a triangular probability distribution with a most likely value of 16 percent, a minimum value of 13.5 percent and a maximum value of 18.6 percent.

WACC Calculation Input Variable	Parameters of Triangular Probability Distributions		
	Minimum	Typical	Maximum
Risk free rate (Nominal, %)	5.5	6.5	8.0
Inflation rate (%)	0	2.5	4.0
<i>Implied</i> Real Risk Free Rate (%) ⁷	1.4	3.9	8.0
Debt premium above risk free rate (%)	0.75	1.2	1.5
Debt to equity ratio	40:60	50:50	60:40
Dividend imputation factor (gamma) (%)	0	0	60
Asset beta value	0.8	1.2	1.6
Market risk premium (%)	6.0	6.5	8.0

4.6.3 Draft Decision

In assessing the derivation of the WACC by CMS, the Regulator obtained advice from Macquarie Bank Limited (Macquarie) and the Allen Consulting Group (ACG). This advice comprised:

- a review of the methodologies employed by CMS and the reasonableness of the values adopted for specific variables, and suggestion of alternative values of variables where appropriate;

⁷ The minimum value for the real risk free rate is obtained by taking the maximum value for the nominal risk free rate with the minimum value for the inflation forecast.

- re-calculation of the cost of capital applicable to the Parmelia Pipeline based on values of input variables determined to be appropriate.

On the basis of the advice provided by Macquarie and ACG, the Regulator determined a value of 8.3 percent (pre-tax, real) to be an appropriate WACC for the Parmelia Pipeline, based on the following parameter values for the CAPM model.

WACC Calculation Input Variable	Value
Real risk free rate (%)	3.7
Nominal risk free rate (%)	6.3
Inflation forecast (%)	2.5
Cost of debt margin over the nominal risk free rate (%)	2.0
Gearing (debt to equity ratio) (%)	60
Corporate tax rate (%)	36
Dividend imputation factor (gamma)	50
Asset beta	0.6
Equity beta	1.0
Market risk premium (%)	6.0

In view of the difference between the Regulator's determination of the WACC and that determined by CMS, the Access Arrangement was considered to not meet the requirements of the Code in respect of establishing the Rate of Return. The required amendment to the Access Arrangement was as follows.

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The WACC estimate used to specify a Rate of Return should be amended to more accurately reflect current financial-market parameters. Any variation from the Regulator's assessment of an appropriate WACC of 8.3 percent (pre-tax, real) would need to be justified to the satisfaction of the Regulator.

4.6.4 Responses to Submissions on the Draft Decision

- Office of Energy

In its first submission to the Regulator, the Office of Energy provided a specific comment on each of the WACC calculation input variables and another set of detailed comments is not considered necessary. However, the Office of Energy considers it appropriate to comment on at least two of those relevant variables adopted in the Draft Decision, namely the Cost of Debt Margin set at 2 percent and the asset beta set at 0.6 by the Regulator.

In its proposed Access Arrangement CMS chose 1.20 percent as the debt premium above the risk free rate. This is consistent with regulatory decisions on Access Arrangements made by the ACCC, the New South

Wales IPART and the Victorian Office of the Regulator General that have accepted debt margins of 1.0 to 1.2 percent. In its first submission the Office of Energy did not specifically object to the cost of debt margin chosen by CMS but rather encouraged the Regulator to undertake a review of the debt premium being proposed.

According to the Draft Decision, financial advice obtained by the Regulator from Macquarie Bank Limited suggested that an appropriate cost of debt margin over the risk free rate for the Parmelia Pipeline could be as high as 2.0 to 2.5 percent, as opposed to the 1.2 percent proposed by CMS. The Regulator considered that the lower bound of the range of values for the debt margin proposed by the adviser (2.0 percent) is reasonable for the Parmelia Pipeline.

The financial adviser to the Regulator considered that a higher premium over the risk free rate may be appropriate for the Parmelia Pipeline due to specific risk factors as identified by CMS in the Access Arrangement, including:

- the Dampier to Bunbury Natural Gas Pipeline (DBNGP) is a direct competitor in the gas transmission market;
- the AlintaGas distribution network is a direct competitor in the Perth area gas delivery market;
- the Parmelia Pipeline holds a small fraction of market share in both the gas transmission and gas delivery markets; the Parmelia Pipeline is incapable of competing with the DBNGP because of its relatively small capacity; and
- the currently producing gas fields in the Perth Basin which supply the Parmelia Pipeline are in decline.

The Office of Energy considers that the first three arguments may be immaterial in determining the risk exposure of CMS in respect of the Parmelia Pipeline, given that:

- recent evidence shows that the Perth basin producers and CMS continue to successfully compete for incremental transmission loads in the Perth market against the North West Shelf producers and the services of the DBNGP. A major competitive advantage experienced by the Perth basin producers is their lower transport costs because of the proximity of the Perth basin fields to the Perth market;
- unlike the DBNGP, on which available capacity is utilised and which would need a substantial additional capital investment to provide for spare capacity, the Parmelia Pipeline has spare capacity available;
- the Parmelia Pipeline has access to locations in the Perth metropolitan area not serviced by the DBNGP. This was also argued by the Regulator in its Draft Decision;
- CMS continues to successfully capture new distribution loads and compete for existing AlintaGas distribution loads in the Perth market. This also applies to non-contestable loads due to CMS not being covered by the restrictions that apply to third parties accessing AlintaGas' distribution system for as long as CMS distributes gas produced in the Perth basin;
- it is expected that the Parmelia Pipeline will soon be operationally interconnected with the AlintaGas distribution system and thus the market for gas transported through the Parmelia Pipeline will increase without the need for additional capital investment; and
- CMS expects full utilisation of the pipeline over the Access Arrangement Period.

Both CMS and the Regulator's financial adviser have claimed particular uncertainty over the life of gas resources in the Perth basin. Similarly to the Regulator, the Office of Energy cannot assess the validity of this argument given the lack of ability to accurately assess the gas reserves of the Perth Basin. However, the Office of Energy considers that although this may be a business risk factor specific to the Parmelia Pipeline, there are other factors that would act to mitigate commercial risk for the Parmelia Pipeline from the possible depletion of the current fields operating in the Perth basin, as follows:

- The Perth basin area remains highly prospective both in terms of the current Perth basin producers and potential new market entrants such as Empire Oil and Gas NL. In the case of Empire Oil and Gas NL, for example, further development of extraction technologies appears likely to reduce unit production costs and make the price of gas produced from fields such as Gingin competitive in the Perth market.

- The Regulator has considered it reasonable for the asset life of the Parmelia Pipeline to be its technical life. The Regulator had considered this on the basis that there is a reasonable prospect for continued use of the Parmelia Pipeline even if the Perth Basin gas reserves are depleted. This use may arise from transport of gas from the Carnarvon Basin via the DBNGP to the locations currently serviced by the Parmelia Pipeline. It should be noted that Carnarvon basin gas is already transported through the Parmelia Pipeline from the DBNGP.
- The proposed storage facility at Mondarra will provide services unique to the Perth market.
- CMS and the Gorgon gas project partner Texaco Australia are investigating the commercial viability of a second pipeline from the Carnarvon basin to Geraldton. The pipeline could duplicate 1,000km of the existing DBNGP and join the Parmelia Pipeline.

It should be noted that the debt margin chosen by the Regulator is inconsistent with the margins used for other Access Arrangements that determined debt premiums of 1.0 to 1.2 percent and with current determinations for electricity transmission/distribution in Western Australia.

A second adviser to the Regulator – the Allen Consulting Group, has used CMS' typical value for the debt margin of 1.2 percent. The Office of Energy notes the advice of the Allen Consulting Group that under the approach to 're-levering' proxy asset betas described in the Draft Decision, changes in the assumed debt margin have a minimal impact on the estimated WACC for a given proxy asset beta. However, it is also noted that the Regulator has chosen the upper limit of the range of asset betas determined by regulators across Australia and a lower asset beta may be appropriate in relation to the Parmelia Pipeline.

As evident from the above table, the ORG/ACCC decision in 1998 used 0.55, and the more recent IPART Draft Decision for the AGL gas network in NSW uses asset beta in the range of 0.4 to 0.5. Examples additional to the ones shown in the above table of asset betas for comparable listed companies and regulated infrastructure were indicated by the Regulator in his Draft Decision to be in the range of 0.4 to 0.5. As indicated in the Draft Decision the average asset beta for the Australian companies listed in the Draft Decision is about 0.5 and an asset beta of 0.6 would be at the upper end of the range of asset betas that have been adopted by regulators in Australia to date. In addition, generally worldwide asset beta values for gas transmission pipelines are in the range of 0.45 to 0.6. Given the arguments in relation to the Parmelia Pipeline risk levels outlined above lowering the asset beta from 0.6 to 0.55 would appear consistent in the case of this pipeline.

- CMS

CMS wishes to put on record that it does not feel the WACC values being espoused by the Australian regulatory community are sufficient to attract significant new investment in pipeline infrastructure, nor are they sufficient for pipelines that serve remote regions with demand dominated by large mining projects. We state this in order to put forward the view that elements of the Parmelia Pipeline Draft Decision should not constitute binding precedent for other regulatory decisions for natural gas pipelines in Western Australia and elsewhere in the country.

In assessing the proposed Rate of Return prior to issue of the Draft Decision, the Regulator took advice to the effect that commercial risk factors specific to the Parmelia Pipeline should be reflected in the cost of debt margin rather than the equity beta values. Subsequent to issue of the Draft Decision, the Regulator has reconsidered the means of accounting for risk in determination of the Rate of Return both in relation to the Parmelia Pipeline and Access Arrangements for other Western Australian transmission pipelines and distribution businesses. As a result, the Regulator considers it appropriate to adopt the more conventional approach to accommodate risk. The revised determination of the Rate of Return is described below.

Calculation Methodology and CAPM Framework for WACC Determination

The Capital Asset Pricing Model (CAPM) is widely used by regulators internationally, particularly in the UK where it is used as the principal model for estimating the regulatory WACC, and is used extensively in both corporate finance and regulatory applications in

Australia. The use by CMS of CAPM theory to derive a WACC is therefore considered consistent with guidelines provided in section 8.31 of the Code.

The typical approach by regulators to date has been to use the CAPM to derive the “target” post-tax return or WACC, and then to make adjustments to the WACC for the net cost of taxation. At its simplest level, the CAPM specifies the WACC for an asset as a Rate of Return that can be earned by a risk-free asset plus a risk premium for the asset in question. The risk premium depends upon the risk of the particular asset relative to the risk associated with a diversified asset portfolio. Analytically:

$$WACC = R_f + \mathbf{b}_a (R_m - R_f)$$

where R_f is the risk free rate, $(R_m - R_f)$ is the expected risk premium above the risk free rate for the portfolio of all assets, and \mathbf{b}_a is the measure of the particular asset’s relative risk, or its asset beta.⁸

In practice, asset betas cannot be observed or measured directly. Estimating a beta requires historical information on the economic returns to an asset (comprising the value of the returns plus the change in the market value of the asset), and on economic returns to the well-diversified portfolio of assets. As this type of information is only available on assets that are traded on the stock exchange, the CAPM is used to estimate the required return to the equity share of an asset, and stock market indices are used as a proxy for the market portfolio. Accordingly, the more common formulation of the CAPM is the following:

$$R_e = R_f + \mathbf{b}_e (R_m - R_f)$$

where R_e is the required return on that equity, R_f is still the risk free rate and \mathbf{b}_e is the measure of the particular equity’s relative risk, or its equity beta. $(R_m - R_f)$ is now the expected risk premium above the risk free rate for a well-diversified portfolio of equities. The outcome of this model, therefore, is an estimate of the required after-tax return to equity. The return required by the other source of financing – debt – can be observed directly from the market, and the average of these sources of financing (weighted by the respective shares of debt and equity in the financing of the asset) provides an estimate of the WACC for the asset. That is:

$$WACC = R_e \frac{E}{V} + R_d \frac{D}{V}$$

where $\frac{E}{V}$ and $\frac{D}{V}$ are equity and debt as shares of total assets, V , and R_d is the cost of debt.

There are, however, a number of different expressions for the WACC that can be commonly used in finance practice. The different expressions for the WACC are derived by transferring one or more particular costs or benefits from the cash-flows to the WACC. The version of after-tax nominal WACC that is consistent with the calculation of the real pre-tax WACC discussed below is the following version:

⁸ Note that, under this version of the CAPM, there is no need for assumptions about the cost of debt or capital structure for the entity to estimate its WACC.

$$WACC = R_e \cdot \frac{E}{V} \cdot \frac{1-t_c}{(1-t_c(1-g))} + R_d \cdot \frac{D}{V} \cdot (1-t_c)$$

where t_c is the corporate tax rate.

This version of WACC includes the impact of a tax shield on debt and the value of franking credits in the WACC (rather than in the cash flows), and consequently is lower than the simple version of WACC stated above.

The various elements of the CAPM model and the position taken by the Regulator on each element are discussed below.

Market (Equity) Risk Premium, ($R_m - R_f$)

The market, or equity risk, premium measures the risk associated with holding the market portfolio of investments. It is the difference between the expected return on holding the market portfolio, and the risk free rate. The risk free rate is difficult to estimate, even on an historic basis, and is highly sensitive to the set of assumptions upon which it is derived. However, practitioners have generally used the actual average excess returns from holding shares compared to long dated (10 year) Government bonds over the long term as a proxy for the expected market risk premium.

Historical evidence indicates a market risk premium of around 6 to 8 percent.⁹ However, given the recent growth rate of the equity market, it appears that investors' perceptions of risks are changing and "forward-looking" estimates of the equity premium are falling. In the UK, for example, utility regulators are currently using a range of between about 3 and 4 percent for the equity premium, as are UK equity analysts. Within Australia, many equity analysts now use an equity premium that is at the lower end of, or below, the range based upon estimates of the long-term historical average equity premium.

The use of historical returns also appears somewhat at odds with the CAPM, which is essentially "forward-looking" with respect to the equity premium. However, the use of a long-term historical average equity premium (a "backward-looking" equity premium) remains attractive, given the inherent volatility in equity markets. For example, in the case of a sudden correction in the stock market, forward-looking estimates of the equity premium would be expected to rise significantly, and equity analysts (and investors) would most likely revise upwards their perceptions of risk in the equity market.

In light of the emerging consensus that the forward-looking equity premium is lower than that implied by long-term historical averages, Australian regulators have been using an assumed equity premium that is at the lower end of, or below, the range implied by the long-term historical averages. The accepted values of market (equity) risk premiums have been in the range 5 to 6 percent, as indicated below.

⁹ IPART, The Rate of Return for Electricity Distribution Businesses: Discussion Paper, November 1998, p16.

Equity premiums adopted in recent regulatory decisions

Regulatory decision	Market (equity) risk premium
ORG Final Decision on Victorian Gas Distribution (October 1998)	6%
ACCC Final Decision on Victorian Gas Transmission (October 1998)	6%
IPART Great Southern Network Final Decision (March 1999)	5% – 6%
ACCC TransGrid Draft Decision (May 1999)	6%
ACCC Telstra’s Originating and Terminating Access Undertaking (June 1999)	6%
IPART NSW Electricity Distributors / Transmission Draft Decision (July 1999)	5% – 6%
IPART Albury Gas Company Draft Decision (August 1999)	5% – 6%
ACCC AGL Central West Pipeline Draft Decision (September 1999)	5.5%

Having regard to the range in market risk premiums adopted by Australian regulators to date, the Regulator considers that a market risk premium of 6 percent should be used to estimate the WACC for the Pipeline.

Rate of Return on Debt, R_d

The required Rate of Return on debt , R_d , is determined by the following expression:

$$R_d = R_f + \text{debt risk margin}$$

where R_f is the nominal risk free rate.

Risk Free Rate, R_f

In recent years, Australian regulators have all adopted a very similar approach to deriving the proxy real risk-free rate, based on one or other of the following methods.

- Deriving the nominal risk free rate from a recent average (20, 30 or 40 days) of the yields on Commonwealth bond rates, the real risk free rate from a recent average of the yields on Commonwealth index-linked bonds over the same period, and calculating the inflation forecast as the difference between these yields.
- Using the yield on bonds with either 5 year or a 10 year yield to maturity.

Whilst the different approaches seldom have a material effect on the proxy real risk free rate, the Regulator has decided to use the yield to maturity on 10 year Commonwealth Government Treasury Bonds as a proxy for the nominal risk free rate and the yield to maturity on the 10 year Commonwealth Government Capital Indexed Treasury Bonds as the proxy for the real risk free rate. The observed yields for the relevant bonds were taken as the average over the 20 trading days to 31 August 2000.

The difference between the two rates (calculated using the Fisher equation¹⁰) provides an inflation forecast over the relevant period. The use of Commonwealth capital indexed bonds has the advantage that it permits a market-based expectation of inflation to be taken into account. It has also been used by other regulators to provide a measure of inflation.¹¹

As at 31 August 2000, this approach gave a nominal risk free rate of 6.21 percent, a real risk free rate of 3.30 percent, and a forecast rate of inflation of 2.85 percent. These values have been used by the Regulator to revise the WACC for the Parmelia Pipeline.

Debt Risk Margin

In assessing the debt risk margin, the Regulator considered the debt margins adopted by regulators in recent regulatory decisions, indicated as follows.

Recent regulatory decisions on debt margins

Regulatory decision	Range for debt margin	Point estimate
ORG Final Decision on Victorian Gas Distribution (October 1998)	1.0% – 1.2%	1.2%
ACCC Final Decision on Victorian Gas Transmission (October 1998)	1.0% – 1.2%	1.2%
IPART Great Southern Network Final Decision (March 1999)	–	1.2%
IPART Albury Gas Company Draft Decision (August 1999)	1.0% – 1.2%	1.2%
IPART NSW Electricity Distributors / Transmission Draft Decision (July 1999)	–	1.0%
ACCC TransGrid Draft Decision (May 1999)	–	1.0%
ACCC AGL Central West Pipeline Draft Decision (September 1999)	–	1.0%
Independent Gas Pipelines Access Regulator (WA) Mid-West and South-West Distribution Systems Final Decision (June 2000)	–	1.3%
Independent Gas Pipelines Access Regulator (WA) Tubridgi Pipeline System Draft Decision (August 2000)	–	1.2%

¹⁰ Brealey, R.A. and Myers, S.C., 1996. *Principles of Corporate Finance*, fifth edition, New York McGraw-Hill, pp 642,643.

¹¹ Independent Pricing and Regulatory Commission, ACTEW's Electricity, Water and Sewerage Charges for 1999/2000 to 2003/2004, Draft Price Decision, February 1999; and IPART, Aspects of the NSW Rail Access Regime, Draft Report, February 1999.

In view of the debt margins assumed for transmission pipelines in Australia, the Regulator considers that it is reasonable to assume a debt margin of 1.2 percent for the Parmelia Pipeline.

Return on Debt, R_d

Using the above estimates of the risk free rate and the debt risk margin, the nominal return on debt, R_d , was determined by the Regulator to be 7.47 percent.

Rate of Return on Equity, R_e

As indicated above, the Rate of Return on equity is determined using the following expression.

$$R_e = R_f + b_e (R_m - R_f)$$

Equity Beta, b_e

The application of the CAPM requires an equity beta, b_e , to be determined for the regulated business of the Parmelia Pipeline. Since this business is not a listed company, it is necessary to use a proxy beta, normally derived from estimates of betas for listed firms that are considered to have a comparable degree of systemic risk. Systematic risk relates to that portion of the variance in the return on an asset that arises from market-wide economic factors that affect returns on all assets, and which cannot be avoided by diversifying a portfolio of assets. The beta values indicate the sensitivity of the value of the particular asset to systematic risk.¹²

In deriving a proxy beta, it must be borne in mind that the level of risk faced by equity holders is affected by the level of gearing that is adopted by the firm. An increase in the level of gearing, *ceteris paribus*, increases the financial risk that is borne by equity holders, and so increases the equity beta. A common practice to permit comparison of estimated betas across firms with different capital structures is to convert the estimated equity betas into an asset beta (which is the estimate of the equity beta on the assumption that the firm was wholly equity financed). As asset betas measure only the underlying market risk of the asset, they can be compared across firms regardless of capital structure. Accordingly, practice amongst regulators has been to determine a proxy asset beta, and then to re-lever this into an equity beta that is consistent with the assumed capital structure of the entity, using the following (or similar) expression:

$$b_e = b_a + (b_a - b_d) \cdot \frac{D}{E}$$

¹² Peirson, G., Bird, R., Brown, R. and Howard, P., 1990. *Business Finance* 5th ed., New York, Sydney: McGraw-Hill, pp 96,97. Systematic risk is also referred to as non-diversifiable risk as no amount of diversification in an asset portfolio can eliminate it. The second component of the total risk of an asset is unsystematic or diversifiable risk which relates to variance in the value of the asset that arises from factors specific to that asset. In principle, this risk can be eliminated from an asset portfolio by adequate diversification of that portfolio.

where b_a is the asset beta, b_d is the debt beta (indicating the sensitivity of the of CMS's debt (risk premium) to the overall market).

The appropriateness of a proxy asset beta is dependent upon the businesses for which beta estimates are available having a similar level of systemic risk. Since there are few comparable infrastructure entities listed on the Australian Stock Exchange, regulatory practice in Australia has been to place weight upon publicly available beta estimates for firms that are operating in other countries. However, differences in the composition of equity markets between countries and differences in the regulatory regimes within which regulated businesses operate can affect the level of systemic risk that is borne by the proxy businesses. Therefore an element of judgement must be exercised as to the appropriateness of the proxy betas. The table below provides examples of recent asset betas calculated for international energy businesses.

Selected international asset betas

Source	Industry Group/Firm	Asset Beta Range
CS First Boston (1997)	8 US gas distribution companies	0.26 – 0.48 (0.36)
	6 US gas transmission companies	0.35 – 0.61 (0.50)
	3 UK electricity distributors	0.97 – 1.39 (1.14)
	Allgas	0.11
	AGL	0.56
	Average for gas distribution	0.50
	Average for gas transmission	0.45
Macquarie Risk Advisory Service (1998)	22 international electricity distribution companies	0.25 – 0.85 (0.45)
	17 international gas distribution companies	0.25 – 0.75 (0.40)
	Allgas	0.30
	AGL	0.40
	Average for distribution businesses	0.35 – 0.50
IPART (1998)	Telecommunications	0.41
	Infrastructure and Utilities	0.46
	Allgas	0.53
	AGL	0.46

There is some evidence that the asset betas for businesses operating under incentive-compatible regulation are likely to be higher than asset betas for businesses operating under

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more conventional rate-of-return regulation.¹³ The ranges for asset betas that have been accepted by regulators in Australia in recent decisions, and the asset betas adopted recently by UK regulators for comparable industries, are indicated below together with the form of regulation applied.

Asset betas adopted by Australian and UK regulators

Gas Regulatory Decisions	Asset Beta Range	Form of Regulation
ORG Final Decision on Victorian Gas Distribution (October 1998)	0.45 – 0.60 (adopted 0.55)	Price cap
ACCC Final Decision on Victorian Gas Transmission (October 1998)	0.45 – 0.60 (adopted 0.55)	Price cap
IPART Great Southern Network Final Decision (March 1999)	0.40 – 0.50	Price cap
IPART Albury Gas Company Draft Decision (August 1999)	0.40 – 0.50	Price cap
ACCC AGL Central West Pipeline Draft Decision (September 1999)	0.60	Price cap
Electricity Regulatory Decisions	Asset Beta Range	Form of Regulation
ACCC TransGrid Draft Decision (May 1999)	40 – 0.50 (adopted 0.45)	Revenue cap
IPART NSW Electricity Distributors / Transmission Draft Decision (July 1999)	0.35 – 0.50	Unsettled
UK Regulatory Decisions	Asset Beta Range	Form of Regulation
Ofgas/MMC Review of Transco (the UK transmission company) (May 1997))	0.45 – 0.6 ¹⁴	Price cap
Offer Draft Decision on UK Electricity Distributors August 1999)	0.70 ¹⁵	Price cap

Having regard to the evidence provided from observed equity betas and the ranges for the asset betas that have been adopted by Australian regulators to date, the Regulator considers

¹³ For example, Alexander, Mayer and Weeds (1996) *Regulatory Structure and Risk and Infrastructure Firms: An International Comparison*, World Bank Policy Research Working Paper No. 1698, which argues that asset betas for businesses operating under incentive-compatible regimes could be as much as 0.3 to 0.4 higher than equivalent companies operating under conventional rate-of-return regimes.

¹⁴ Monopolies and Mergers Commission, *BG plc: A Report under the Gas Act 1986 on the Restriction of Prices for Gas Transportation and Storage Services* (1997).

¹⁵ Office of Electricity Regulation (UK), *Reviews of Public Electricity Suppliers 1998 to 2000: Distribution Price Control Review Draft Proposals*, August 1999. Offer used an equity beta of 1.0 with a gearing level of 50%. The high assumed asset beta comes from it using a debt margin of 1.4% with a mid-point equity premium of 3.5%, which implies a debt beta of 0.40 (using the method for estimating the debt beta discussed earlier). A more reasonable debt beta – say, 0.20 – would give a much lower estimated asset beta (in that case, of 0.6).

that a range for the asset beta of between 0.45 and 0.60 would generally constitute a reasonable range for the asset beta of an Australian gas transmission business. However, the Regulator considers that the Parmelia Pipeline is likely to bear a higher level of risk than other gas transmission businesses by virtue of it being a small pipeline business with a limited number of potential Users and a market for services that is highly dependent upon production from a limited number of gas fields.

In light of the relatively high risk status of the Parmelia Pipeline, an asset beta marginally above the upper end of this acceptable range (0.65) has been used to estimate the WACC.

The debt beta, b_d , is not directly observable. The Regulator calculated the debt beta as the ratio of the debt premium to the market risk premium, giving a value of 0.20.

Calculation of the asset beta from equity and debt betas also requires assumption of a gearing ratio for the Parmelia Pipeline. The Regulator assumed a financing structure comprising 60 percent debt and 40 percent equity. This gearing level is consistent with reviews of gearing levels in recent decisions on regulated infrastructure in the eastern States.¹⁶ Adoption of this gearing level is consistent with the requirements of section 8.31 of the Code that requires that the weighted average return on funds should be calculated by reference to a financing structure that reflects standard industry structures. As the standard target gearing for gas companies is considered to be 60 percent by the ACCC, ORG and IPART, the Regulator considers such a level of gearing to be appropriate for the determination of the WACC for the Parmelia Pipeline.

Assuming a gearing (debt to equity) ratio of 60:40, an asset beta of 0.65 and a debt beta of 0.20 correspond to an equity beta of 1.33.

Return on Equity, R_e

Using the above estimates of the equity beta, risk free rate and market risk premium, the nominal post-tax return on equity, R_e , was determined by the Regulator to be 14.22 percent.

Taxation

There are three main taxation issues relevant to the determination of the WACC. These are the effective rate of company taxation, imputation of franking credits, and conversion of the post-tax WACC to a pre-tax WACC.

Rate of Taxation

The target revenue that is used by the Regulator for regulatory purposes is a pre-tax revenue stream.¹⁷ This target revenue includes the “cost” of a Rate of Return on assets that includes taxation liabilities. The Regulator must therefore make an assumption about the likely cost of

¹⁶ ACCC, 1998, Final Decision on the Access Arrangements by Transmission Pipelines Australia Pty Ltd and Transmission Pipelines Australia (Assets) Pty Ltd for the Principal Transmission System, Transmission Pipelines Australia Pty Ltd and Transmission Pipelines (Assets) Pty Ltd for the Western Transmission System, and by Victorian Energy Networks Corporation for the Principal Transmission System; IPART, 1999, Draft Decision Albury Gas Company Ltd.

¹⁷ That is, regardless of what a regulator might decide or intend, the revenue that the entity earns from its regulated business will be assessable for company taxation according to the relevant statutes.

taxation to that entity. It follows that the accuracy of the assumption that is made about the cost of tax will affect whether the target revenue is expected to provide the target post-tax return. If the cost of taxation is overestimated, then the target revenue would be expected to provide the regulated entity with a return that is higher than market requirements. Conversely, if the cost of taxation is underestimated, then the target revenue would be expected to provide the regulated entity with a return that is below market requirements.

A critical question facing regulators in Australia in assessing the most appropriate treatment of taxation has been whether the assumed cost of taxation should reflect the effective taxation rate or the statutory taxation rate. The effective taxation rate (actual taxation liability as a proportion of regulatory profit) may differ from the statutory taxation rate for several reasons including the divergence between the depreciation allowed under the regulatory regime and taxation depreciation, and the ability of the regulated entity to deduct the nominal cost of debt for taxation purposes.

Given the problems encountered by regulators in estimating an effective rate of taxation from a long-term estimate of the average cost of tax, there has been recent conjecture that an effective rate of tax is best estimated using a short-term estimate of the cost of tax, through either a *flow-through* or *normalisation* approach.¹⁸ The ACCC, in its statement of regulatory principles for the regulation of electricity transmission revenues, has proposed setting required revenues based on a forecast of taxation liabilities (net of the assessed value of franking credits) over the relevant regulatory period, which is consistent with either a flow-through or normalisation approach.¹⁹ In addition, whilst the ACCC estimated the taxation liability for the AGL Central West Pipeline in its Draft Decision essentially on the basis of a long-term average cost of tax, it is understood that the ACCC is considering implementing normalisation for that pipeline in its final decision.

The Regulator has given consideration to adopting an effective rate of tax, based on a short-term estimate of the cost of tax using either a pass-through or normalisation approach, in its assessment of the likely cost of tax to CMS. However, despite the theoretical advantages associated with using these techniques, the Regulator is mindful of the complexities involved in their practical application, which will require additional and specific research before implementation. In the absence of any definitive studies demonstrating the accuracy of using an effective rate of tax in the CAPM, based on a pass-through or normalisation approach, the Regulator considers that the statutory corporate tax rate is appropriate.

The Regulator is, however, mindful of the changes to corporate taxation rates that will occur over the Access Arrangement Period for the Parmelia Pipeline System: a reduction from

¹⁸ Under the flow-through approach, an explicit estimate is made of the cost of tax for the regulated entity for each year of the Access Arrangement Period and added to the pre-tax revenue requirement. Under the normalisation approach, a notional cost of taxation is included within the revenue requirement, where this cost of taxation is calculated on the assumption that the taxation system only permits regulatory depreciation rather than taxation depreciation to be deducted for taxation purposes. Both the ORG and the ACCC have discussed in detail the problems that are associated with using simple transformations or empirical estimates of the long-term average cost of taxation to set regulated revenues, and have stated that approaches like flow-through or normalisation offer advantages. These matters were discussed in ACCC, *Final Decision: Access Arrangement by Transmission Pipelines Australia Pty Ltd*, October 1998, ORG, *Final Decision: Access Arrangements for Westar, Multinet and Stratus*, October 1998, and more recently in ORG, *2001 Electricity Distribution Price Review: Cost of Capital Financing (Consultation Paper No 4)*, May 1999.

¹⁹ ACCC, *Draft Statement of Regulatory Principles of Transmission Revenues*, May 1999.

36 percent to 34 percent for 2000/01, and to 30 percent thereafter. For the purposes of determining Reference Tariffs, the Regulator has determined a Rate of Return based on the average taxation rate over the period July 2000 to June 2005, being 30.8 percent.

Valuation of Franking Credits

Franking credits are an allowance under the Australian taxation system that permit dividends paid to shareholders to be exempt from personal income tax in recognition of company tax having already been paid on profits from which the dividends are paid. The value of franking credits is incorporated into the WACC calculation to reflect the benefits that shareholders gain from franking, and the consequent lower requirement of shareholders for the Rate of Return on investment.

The approach for reflecting the value of imputation credits that has emerged as standard practice is to use a market (equity) risk premium that assumes that Australia has a classical tax system, then to adjust the WACC or cash-flows directly to reflect the non-cash benefits associated with franking credits. The mechanism used to achieve this – the gamma term – can then be interpreted as the value of each franking credit that is created by the firm, as a proportion of its face value.

The most common reference for deriving the value of gamma is the study by Professors Officer and Hathaway from the Melbourne Business School who estimated a gamma value of about 0.5.²⁰ This value, derived from aggregate taxation statistics, was based on the assumption that 60 per cent of franking credits are utilised, but only 80 per cent are paid out (suggesting a gamma value of 0.48). The value of 0.5 has been adopted by the ACCC and ORG in all of their decisions. However, there is more recent evidence available which suggests that the Officer and Hathaway study may have understated the value of franking credits once distributed, and so understate gamma.²¹

The gamma values that have been accepted by regulators in recent regulatory matters are provided in the table below.

²⁰ Hathaway and Officer (1992), *The Value of Imputation Credits*, unpublished manuscript, Finance Research Group, Graduate School of Management, University of Melbourne.

²¹ This is discussed by Professor Kevin Davis in Davis (2000), [advice to the ACCC on Sydney airports – available on the ACCC website].

Gamma Assumptions Adopted by Australian Regulators

Regulatory Decision	Gamma Assumption
ORG Final Decision on Victorian Gas Distribution (October 1998)	0.50
ACCC Final Decision on Victorian Gas Transmission (October 1998)	0.50
IPART Great Southern Network Final Decision (March 1999)	0.30 – 0.50
IPART Albury Gas Company Draft Decision (August 1999)	0.30 – 0.50
IPART NSW Electricity Distributors / Transmission Draft Decision (July 1999)	0.30 – 0.50
ACCC TransGrid Draft Decision (May 1999)	0.50
ACCC Telstra's Originating and Terminating Access Undertaking (June 1999)	0.50
ACCC AGL Central West Pipeline Draft Decision (September 1999)	0.50
Independent Gas Pipelines Access Regulator (WA) Mid-West and South-West Distribution Systems Draft Decision (March 2000)	0.50
Independent Gas Pipelines Access Regulator (WA) Tubridgi Pipeline System Draft Decision (August 2000)	0.50

Notwithstanding the more recent evidence, the Regulator has decided to use a gamma value of 0.5 in the determination of the WACC.

Conversion of Post-Tax WACC to Pre-Tax WACC

The conversion of the post-tax WACC to the pre-tax WACC is undertaken by adjusting for the corporate tax rate, including the effects of imputation of franking credits.

In the decisions by Australian regulators where an explicit estimate of the cost of tax has not been made, most have based the assumptions about the cost of tax on one (or both) of two simple transformations of a post-tax WACC to a pre-tax WACC:

- i. forward (or market) transformation, involving division of the post-tax nominal WACC by one minus the statutory taxation rate, and then deducting inflation (using the Fisher transformation²²) to derive the pre-tax real WACC; and

²² $Real\ WACC = \frac{1 + nominal\ WACC}{1 + i} - 1$, where i is the inflation rate.

- ii. reverse transformation, involving first deducting inflation from the post-tax nominal WACC, and then grossing up the post-tax real WACC by one minus the statutory taxation rate.

The recent decisions of Australian regulators in gas and electricity matters have used these methodologies in the following ways to correct for the cost of taxation.

Approaches of Australian regulators to the derivation of pre-tax WACC

Regulatory decision	Approach	Forward transformation pre-tax WACC	Adopted pre-tax WACC
ORG Final Decision on Victorian Gas Distribution (October 1998)	Used the forward and reverse transformations to generate a range for the WACC, and chose a value towards the upper end of this range.	8.0%	7.75%
ACCC Final Decision on Victorian Gas Transmission (October 1998)	Used the forward and reverse transformations to generate a range for the WACC, and chose a value towards the upper end of this range.	8.0%	7.75%
IPART Great Southern Network Final Decision (March 1999)	Used the forward and reverse transformations, together with ranges for the other inputs, to generate a range for the WACC, and chose a value within this range.	6.8% – 8.4%	7.75%
IPART NSW Electricity Distributors / Transmission Draft Decision (July 1999)	Used the forward and reverse transformations, together with ranges for the other inputs, to generate a range for the WACC, and chose a value within this range.	6.6% – 8.6%	7.5% (Urban) 7.75% (Rural)
IPART Albury Gas Company Final Decision (December 1999)	Used the forward and reverse transformations, together with ranges for the other inputs, to generate a range for the WACC, and chose a value within this range.	5.1% – 8.6%	7.75%
ACCC AGL Central West Pipeline Draft Decision (September 1999)	Calculated a pre-tax WACC based on a long term effective tax rate. The pre-tax WACC was calculated empirically (i.e. based on forecast cash flows over the long term). It is understood that the ACCC is contemplating including a normalisation mechanism for the Central West Pipeline in its final decision.	8.4%	7.5%
Independent Gas Pipelines Access Regulator (WA) Parmelia Pipeline Draft Decision (October 1999)	Used the forward transformation and single values of other inputs to generate a point estimate for the WACC.	8.3%	8.3%

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Approaches of Australian regulators to the derivation of pre-tax WACC

Regulatory decision	Approach	Forward transformation pre-tax WACC	Adopted pre-tax WACC
Independent Gas Pipelines Access Regulator (WA) Mid West and South-West Distribution Systems Final Decision (June 2000)	Used the forward transformation together with single values of other inputs to generate a single value for the WACC.	7.5%	7.5%
Independent Gas Pipelines Access Regulator (WA) Tubridgi Pipeline System Draft Decision (August 2000)	Used the forward transformation together with single values of other inputs to generate a single value for the WACC.	8.2%	8.2%

The Regulator has adopted the forward transformation methodology in this Final Decision. The Regulator's use of the forward transformation reflects a view that the announced changes to the company taxation regime in Australia are likely to narrow the gap between the statutory and effective tax rates for infrastructure firms in Australia. It is noted, however, that there is no consistent approach to the issue amongst the other Australian regulators, and that an after-tax WACC has been adopted in a number of recent decisions in Australia, with an allowance for taxation included explicitly in the revenue benchmark.

WACC Determination

A comparison of values of input variables to the WACC calculation used by CMS for the Parmelia Pipeline with values considered reasonable by the Regulator is provided as follows.

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Estimation of the Rate of Return

Parameter	Parameter symbol	Typical value used by CMS	Value proposed by the Regulator
Risk free rate (nominal)	R_f	6.5%	6.21%
Risk free rate (real)	R_f	3.9%	3.30%
Market risk premium	–	6.5%	6.0%
Asset beta	b_a	1.2	0.65
Equity beta	b_e		1.33
Debt beta	b_d		0.20
Cost of debt margin		1.2%	1.20%
Corporate tax rate	T	36%	30.8%
Franking credit value	g	0	50%
Debt to total assets ratio	D/V	50%	60%
Equity to total assets ratio	E/V	50%	40%
Expected inflation	p_e	2.5%	2.85%

The revised WACC estimates for the Parmelia Pipeline are as follows.

Revised WACC for the Parmelia Pipeline

Estimated WACC	Nominal	Real
Post-Tax (Officer)	7.7%	4.8%
Pre-tax (forward transformation of Officer WACC)	11.2%	8.1%
Pre-tax (reverse transformation of Officer WACC)	9.9%	6.8%

As stated above, the Regulator has used the forward transformation to derive the implied allowance for corporate taxation. Accordingly, on the basis of financial advice, the Regulator has adopted a real pre-tax WACC of 8.1 percent for the purposes of assessing the proposed Reference Tariffs for the Parmelia Pipeline. The implied nominal pre-tax WACC is 11.2 percent.

The returns to equity that are implied by this WACC estimate are as follows.

Returns on equity implicit in the revised pre-tax WACC

Nominal post-tax return on equity	14.2 percent
Real post-tax return on equity	11.1 percent
Nominal pre-tax return on equity	16.8 percent
Real pre-tax return on equity	13.6 percent

4.6.5 Required Amendments to the Access Arrangement

Amendment 26 (was Draft Decision Amendment 28)

The Access Arrangement and Access Arrangement Information should be amended to reflect a pre-tax real Rate of Return of 8.1 percent.

4.7 DEPRECIATION SCHEDULE

4.7.1 Access Code Requirements

Sections 8.32 to 8.34 of the Code specify rules for depreciation of assets that form part of the Capital Base, for the purposes of determining a Reference Tariff.

Section 8.32 defines a Depreciation Schedule as the set of depreciation schedules (one of which may correspond to each asset or group of assets that form part of the covered pipeline) that is the basis upon which the assets that form part of the Capital Base are to be depreciated for the purposes of determining a Reference Tariff (the Depreciation Schedule).

Section 8.33 requires that the Depreciation Schedule be designed:

- (a) so as to result in the Reference Tariff changing over time in a manner that is consistent with the efficient growth of the market for the Services provided by the pipeline (and which may involve a substantial portion of the depreciation taking place in future periods, particularly where the calculation of the Reference Tariffs has assumed significant market growth and the pipeline has been sized accordingly);
- (b) so that each asset or group of assets that form part of the covered pipeline is depreciated over the economic life of that asset or group of assets;
- (c) so that, to the maximum extent that is reasonable, the depreciation schedule for each asset or group of assets that form part of the covered pipeline is adjusted over the life of that asset or group of assets to reflect changes in the expected economic life of that asset or group of assets; and
- (d) subject to provisions for capital redundancy in section 8.27 of the Code, so that an asset is depreciated only once (that is, so that the sum of the Depreciation that is attributable to any asset or group of assets over the life of those assets is equivalent to the value of that

asset or group of assets at the time at which the value of that asset or group of assets was first included in the Capital Base).

Section 8.34 provides for the application of depreciation principles in the determination of Total Revenue using IRR or NPV methodologies. If the IRR or NPV methodology is used, then the notional depreciation over the Access Arrangement Period for each asset or group of assets that form part of the covered pipeline is:

- (a) for an asset that was in existence at the commencement of the Access Arrangement Period, the difference between the value of that asset in the Capital Base at the commencement of the Access Arrangement Period and the value of that asset that is reflected in the Residual Value; and
- (b) for a New Facility installed during the Access Arrangement Period, the difference between the actual cost or forecast cost of the Facility (whichever is relevant) and the value of that asset that is reflected in the Residual Value,

and, to comply with section 8.33:

- (c) the Residual Value of the covered pipeline should reflect notional depreciation that meets the principles of section 8.33; and
- (d) the Reference Tariff should change over the Access Arrangement Period in a manner that is consistent with the efficient growth of the market for the Services provided by the pipeline (and which may involve a substantial portion of the depreciation taking place towards the end of the Access Arrangement Period, particularly where the calculation of the Reference Tariffs has assumed significant market growth and the pipeline has been sized accordingly).

4.7.2 Access Arrangement Proposal

CMS proposed a Depreciation Schedule based on straight line depreciation of the Initial Capital Base and Capital Expenditure forecast to occur during the Access Arrangement Period. For the purposes of depreciation, CMS assumed a single triangular probability distribution for the economic life for all assets making up the pipeline. This did not reflect a weighted average asset life across asset classes, but rather was an “approximate” value selected by CMS.

As the Initial Capital Base and asset life were both specified by CMS as probabilistic estimates, the residual Capital Base at the end of the Access Arrangement Period was also determined as a probabilistic estimate.

4.7.3 Draft Decision

In assessing the proposed methodology for depreciation of the Capital Base, the Regulator considered two matters:

- the proposal by CMS to depreciate assets by the straight line method; and
- the proposal by CMS to depreciate assets based on an assumption of a single value for the remaining life of all assets making up the pipeline.

The proposal of CMS to depreciate the Capital Base by the straight line method was considered to be consistent with depreciation methodologies proposed for other Access Arrangements in Australia.²³ However, for the Parmelia Pipeline the methodology was considered to be potentially inconsistent with section 8.33(a) of the Code that requires a depreciation schedule to be designed so as to result in the Reference Tariff changing over time in a manner that is consistent with the efficient growth of the market for the Services provided by the Pipeline.

Furthermore, CMS propose to depreciate the Capital Base under the assumption of a single value for the economic life and remaining life for all assets making up the pipeline. This is inconsistent with the requirement of section 8.33(b) of the Code that requires each asset or group of assets that form part of the pipeline to be depreciated over the economic life of that asset or group of assets. In considering valuation of the Initial Capital Base (section 4.3 of this Final Decision), the Regulator concluded that valuation should be based upon reasonable expectations of CMS of the economic value of the pipeline assets at the time the assets were purchased, rather than a cost figure such as a DORC value. With an economic-value methodology for valuing the Initial Capital Base, the value is not associated with particular assets but rather with the value of contracts for gas transportation. Consequently, the Regulator considers that an Initial Capital Base valued in this way should be depreciated over the remaining life of the principal pipeline assets rather than the economic lives of individual assets or groups of assets. Notwithstanding this, however, new Capital Expenditure should be depreciated according to the economic lives of the new assets.

In view of the above matters, the Access Arrangement was considered to not meet the requirements of the Code in respect of the Depreciation Schedule. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 29

The Depreciation Schedule should be altered such that the part of the value of the Initial Capital Base that is in excess of the value attributable to existing contracts is depreciated only as the expectations of market growth are realised.

Draft Decision Amendment 30

The methodology for depreciation of new Capital Expenditure should be altered to give greater recognition to different economic lives for the various assets or groups of assets.

4.7.4 Responses to Submissions on the Draft Decision

No submissions were made on the Draft Decision in respect of the required amendments relating to the Depreciation Schedule.

²³ ACCC, 1998, Final Decision on the Access Arrangements by Transmission Pipelines Australia Pty Ltd and Transmission Pipelines Australia (Assets) Pty Ltd for the Principal Transmission System, Transmission Pipelines Australia Pty Ltd and Transmission Pipelines Australia (Assets) Pty Ltd for the Western Transmission System, and by Victorian Energy Networks Corporation for the Principal Transmission System. Office of the Regulator General, Victoria, October 1998. Access Arrangements – Multinet Energy Pty Ltd & Multinet (Assets) Pty Ltd, Westar (Gas) Pty Ltd & Westar (Assets) Pty Ltd, Stratus (Gas) Pty Ltd & Stratus Networks (Assets) Pty Ltd.

4.7.5 Required Amendments to the Access Arrangement

The Regulator’s Draft Decision required CMS to alter the Access Arrangement to allow for the value of the Initial Capital Base that is in excess of the value attributable to existing contracts is depreciated only as the expectations of market growth are realised, and the methodology for depreciation of new Capital Expenditure to be altered to give greater recognition to different economic lives for the various assets or groups of assets.

CMS has not made submissions to the Regulator in regard to either of these requirements. The Regulator therefore maintains that it is appropriate for depreciation to be determined by a method consistent with the part of the value of the Initial Capital Base that is in excess of the value attributable to existing contracts being depreciated only as the expectations of market growth are realised.

The Regulator has therefore revised the Depreciation Schedule to reflect calculation of depreciation of the Initial Capital Base on a unit-of-production basis, assuming average throughput of 40 TJ/day in 2000, increasing to 60 TJ/day over five years and being maintained at 60 TJ/day thereafter, and a residual life of assets of 42 years. Depreciation of Capital Expenditure has been calculated on a straight line basis over assumed technical lives of particular asset classes. Calculation of depreciation also took into account the revised values of the Initial Capital Base and Capital Expenditure.

Amendment 27 (was Draft Decision Amendments 29 and 30)							
The Access Arrangement and Access Arrangement Information should be amended to reflect depreciation costs over the Access Arrangement Period as follows (1999 \$million):							
Asset Group	Economic		Depreciation				
	life	Remaining life	2000	2001	2002	2003	2004
Existing Assets	70	42	1.004	1.130	1.255	1.381	1.506
Capital Expenditure							
Minor Capex	20	20	0.013	0.025	0.038	0.050	0.063
Interconnection	70	70	0.032	0.032	0.032	0.032	0.039
SCADA	10	10	0	0	0.030	0.030	0.030
Building	70	70	0.011	0.011	0.011	0.011	0.011
Total			1.059	1.197	1.365	1.503	1.649

4.8 TOTAL REVENUE, COST/REVENUE ALLOCATION AND REFERENCE TARIFFS

4.8.1 Access Code Requirements

The Code addresses the determination of Reference Tariffs in terms of two principal steps:

- determination of an amount of Total Revenue required to cover all costs associated with providing gas transportation services, including depreciation and a return on capital;

- allocation of the Total Revenue across services, including both Reference and Non Reference Services, and determination of the Reference Tariffs that will return the share of Total Revenue allocated to Reference Services.

CMS did not document each of these steps separately. Instead, the steps were subsumed in a stochastic model used to determine Reference Tariffs. In view of this approach, the steps are considered jointly in this section of the Final Decision.

The requirements of the Code in respect of each step in the determination of Reference Tariffs are described below.

Total Revenue

Sections 8.4 and 8.5 of the Code require that the revenue to be generated from the sales (or forecast sales) of all Services over the Access Arrangement Period (the Total Revenue) be determined, or be able to be expressed in terms of, one of three methodologies.

- **Cost of Service:** the Total Revenue is equal to the cost of providing all Services (some of which may be the forecast of such costs), and with this cost to be calculated on the basis of:
 - (a) a return (Rate of Return) on the value of the capital assets that form the Covered Pipeline (Capital Base);
 - (b) depreciation of the Capital Base (Depreciation); and
 - (c) the operating, maintenance and other non-capital costs incurred in providing all Services provided by the Covered Pipeline (Non-Capital Costs).
- **Internal Rate of Return (IRR):** the Total Revenue will provide a forecast IRR for the Covered Pipeline that is consistent with the principles in sections 8.30 and 8.31 of the Code. The IRR should be calculated on the basis of a forecast of all costs to be incurred in providing such Services (including capital costs) during the Access Arrangement Period. The initial value of the Covered Pipeline in the IRR calculation is to be given by the Capital Base at the commencement of the Access Arrangement Period and the assumed residual value of the Covered Pipeline at the end of the Access Arrangement Period (Residual Value) should be calculated consistently with the principles in section 8 of the Code.
- **Net Present Value (NPV):** the Total Revenue will provide a forecast NPV for the Covered Pipeline equal to zero. The NPV should be calculated on the basis of a forecast of all costs to be incurred in providing such Services (including capital costs) during the Access Arrangement Period, and using a discount rate that would provide the Service Provider with a return consistent with the principles in sections 8.30 and 8.31 of the Code.

The initial value of the Covered Pipeline in the NPV calculation is to be given by the Capital Base at the commencement of the Access Arrangement Period and the assumed Residual Value at the end of the Access Arrangement Period should be calculated consistently with the principles in section 8 of the Code.

The methodology used to calculate the Cost of Service, an IRR or NPV should be in accordance with generally accepted industry practice.

Section 8.6 of the Code recognises that, in view of the manner in which the Rate of Return, Capital Base, Depreciation Schedule and Non Capital Costs may be determined (in each case involving various discretions), it is possible that a range of values may be attributed to the Total Revenue determined using the above methodologies. In order to determine an appropriate value within this range the Regulator may 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 of the Code that is most consistent with the objectives contained in section 8.1 of the Code. Section 8.7 of the Code requires that, if the Regulator has considered financial and operational performance indicators for the purposes of section 8.6 of the Code, it must identify the indicators and provide an explanation of how they have been taken into account.

Cost/Revenue Allocation

In determining Reference Tariffs, a Service Provider must determine (explicitly or implicitly) the costs or share of costs of pipeline operation that will be recovered from revenues from Reference Services and other services. Rules for the allocation of costs/revenues between services are provided in sections 8.38 to 8.43 of the Code.

Section 8.38 of the Code requires that Reference Tariffs should be designed to only recover that portion of Total Revenue which includes:

- (a) all of the Total Revenue that reflects costs incurred (including capital costs) that are directly attributable to the Reference Service; and
- (b) a share of the Total Revenue that reflects costs incurred (including capital costs) that are attributable to providing the Reference Service jointly with other Services, with this share to be determined in accordance with a methodology that meets the objectives in section 8.1 of the Code and is otherwise fair and reasonable.

Section 8.39 of the Code provides for the Regulator to require a different methodology to be used for cost/revenue allocation than may have been proposed by a Service Provider in an Access Arrangement pursuant to section 8.38 of the Code, however if such a requirement is proposed, the Regulator must provide a detailed explanation of the methodology that is required to be used.

Section 8.40 of the Code addresses the allocation of Costs/Revenue between reference Services and Rebatable Services, defined in the Code as a Service where:

- (a) there is substantial uncertainty regarding expected future revenue from sales of that Service due to the nature of the Service and/or the market for that Service; and
- (b) the nature of the Service and the market for that Service is substantially different to any Reference Service and the market for that Reference Service.

If a Reference Service is provided jointly with a Rebatable Service, then all or part of the Total Revenue that would have been recovered from the Rebatable Service under section 8.38 of the Code (if that Service was a Reference Service) may be recovered from the Reference Service provided that an appropriate portion of any revenue realised from sales of any such Rebatable Service is rebated to Users of the Reference Service (either through a reduction in

the Reference Tariff or through a direct rebate to the relevant User or Users). The structure of such a rebate mechanism should be determined having regard to the following objectives:

- (a) providing the Service Provider with an incentive to promote the efficient use of Capacity, including through the sale of Rebatable Services; and
- (b) Users of the Reference Service sharing in the gains from additional sales of Services, including from sales of Rebatable Services.

Section 8.41 provides a Service Provider with discretion to adopt alternative approaches to cost/revenue allocation subject to any approach adopted having substantially the same effect as the approach outlined in section 8.38 and 8.40 of the Code.

Section 8.42 relates to the allocation of costs/revenue between Users and requires that, subject to provisions for prudent discounts in section 8.43 of the Code, Reference Tariffs be designed such that the proportion of Total Revenue recovered from a actual or forecast sales of a reference Service to a particular User of that Service is consistent with the principles described in section 8.38 of the Code.

Section 8.43 of the Code provides for a Service Provider to give prudent discounts on Reference Tariffs or Equivalent Tariffs for Non Reference Services in particular circumstances. A User receiving a discount would be paying a proportion of Total Revenue that is less than proportional to that which would be paid by the User under the principles of sections 8.38 and 8.40 of the Code. Section 8.43 of the Code provides for such a discount to be given to a User if:

- (a) the nature of the market in which a User or Prospective User of a Reference Service or some other Service operates, or the price of alternative fuels available to such a User or Prospective User, is such that the Service, if priced at the nearest Reference Tariff (or, if the Service is not a Reference Service, at the Equivalent Tariff) would not be used by that User or Prospective User; and
- (b) a Reference Tariff (or Equivalent Tariff) calculated without regard to revenues from that User or Prospective User would be greater than the Reference Tariff (or Equivalent Tariff) if calculated having regard to revenues received from that User or Prospective User on the basis that it is served at a price less than the Reference Tariff (or Equivalent Tariff).

The proportion of Total Revenue that comprises the Discount may be recovered from other users of the Reference Service or some other Service or Services in a manner that the Regulator is satisfied is fair and reasonable.

4.8.2 Access Arrangement Proposal

CMS utilised a net present value methodology for the determination of Total Revenue (Access Arrangement Information, section 7.2). The determination of Total Revenue was not described or stated in the Access Arrangement or Access Arrangement Information, but rather was subsumed into the calculation of Reference Tariffs that return a net present value equal to zero.

The allocation of costs/revenue across Services and Users was not explicitly described by CMS in documentation relating to the determination of Reference Tariffs. Nevertheless, an allocation of costs/revenue across services is implicit in the tariff determination. In assessing CMS's tariff determination, the Regulator interpreted the general procedure for allocating Total revenue and determining Reference Tariffs to be as follows.

- An estimate was made of total pipeline capacity and a division of this capacity into capacity available for the provision of firm services (firm capacity) and capacity available for the provision of interruptible services (interruptible capacity). CMS used a probabilistic estimate of total pipeline capacity as a triangular probability distribution with a minimum value of 80 TJ/day, a typical value of 86 TJ/day and a maximum capacity of 91 TJ/day. This was assumed to be divided into firm and interruptible capacity in proportions of 74 percent and 26 percent respectively.
- An assumption was made that all services provided under existing capacity utilise firm capacity with a load factor of 100 percent. The projected annual throughputs for services under existing contracts over the Access Arrangement Period were subtracted from the firm capacity of the pipeline to derive a residual firm capacity able to be utilised for additional services. Projected annual throughputs for existing contracts are indicated in section 6.2.2 of the Access Arrangement Information as 29.0 TJ/day in 1999, 29.6 TJ/day in 2000, and 30.2 TJ/day in 2001 to 2003.
- An assumption was made that all residual firm capacity and interruptible capacity would be utilised for the provision of the Firm Extended Service and the Interruptible Extended Service, respectively, with a load factor of 90 percent.
- As the load factor for the Firm Extended Service and Interruptible Extended Service is less than 100 percent, there is residual capacity available for provision of Spot Services. An assumption was made of Reference Spot Services being provided with a probabilistic estimate of throughput as a triangular distribution with a minimum value of 0 TJ/day, a typical value of 5 TJ/day and a maximum value of 15 TJ/day.
- The Total Revenue for the pipeline was specified as being returned through:
 - revenue from services provided under existing contracts, as specified in section 7.5.4.5 of the Access Arrangement Information;
 - revenue from Spot Reference Services determined as the throughput of Spot Services multiplied by a tariff specified as an exogenous random variable with a triangular probability distribution with minimum value \$0.15/GJ, typical value of \$0.25/GJ and maximum value of \$0.50/GJ;
 - revenue from a reservation component of Reference Tariffs for Firm Extended Service and Interruptible Extended Service, levied against all residual firm capacity and all interruptible capacity of the pipeline; and
 - revenue from a commodity component of Reference Tariffs for Firm Extended Service and Interruptible Extended Service, levied against throughput for these services assuming the 90 percent load factor.

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- The relativities of Reference Tariffs for Firm Extended Service and Interruptible Extended Service, and the reservation and commodity components of these tariffs, were specified as –

	Reservation Charge	Commodity Charge	Total Tariff
Firm Extended Service	$(0.8)x$	$(0.2)x$	x
Interruptible Extended Service	$(0.8)(0.9)x$	$(0.2)(0.9)x$	$(0.9)x$

- A “goal seeking” algorithm was used to determine a value for the Reference Tariff for the Firm Extended Service (x in the table above), and hence for other Reference Tariffs for extended Reference Services, that for a given set of input variable values determines a Total Revenue that returns a net present value of the Pipeline over the Access Arrangement Period of zero with a discount rate equal to the WACC. This was undertaken as a Monte Carlo simulation with the probabilistic estimates of input variables specified in section 7.5.4.10 of the Access Arrangement Information and summarised as follows.

Input Variable	Parameters of Triangular Probability Distributions		
	Minimum Value	Typical Value	Maximum Value
Total pipeline capacity (TJ/day)	80	86	91
Total firm pipeline capacity (TJ/day)	60	64	68
Spot services throughput (TJ/day)	0	5	15
Spot services tariff (\$/GJ)	0.15	0.25	0.50
Capital expenditure (percent of projected)	75	100	125
Operating expenditure (percent of projected)	75	100	125
Pipeline optimised replacement cost (\$m)	170	210	253
Life of all assets (years)	42	60	80
Weighted average cost of capital (percent)	13.5	16.0	18.6
Inflation rate (percent)	0	2.5	4

- The Monte Carlo simulation methodology returned a probabilistic estimate of the Reference Tariff for the Firm Extended Service (and hence the Reference Tariff for the Interruptible Extended Service and the reservation and commodity components of these tariffs) that will return a net present value of the pipeline equal to zero. The probabilistic estimate of the Reference Tariff for the Firm Extended Service was characterised by a mean of \$0.83/GJ with a range of approximately \$0.50/GJ to \$1.30/GJ. CMS selected the mean value as the Reference Tariff for the Firm Extended Service, and hence set the Reference Tariffs and commodity and reservation components of these tariffs as follows.

	Reservation Charge	Commodity Charge	Total Tariff
Firm Extended Service	\$0.664/GJ	\$0.166/GJ	\$0.83/GJ
Interruptible Extended Service	\$0.5976/GJ	\$0.1494/GJ	\$0.747/GJ

CMS propose that the Reference Tariffs be inflated quarterly by a CPI Escalator calculated from the formula:

$$CPI_N = \frac{(CPI_{N-2} - CPI_0)}{CPI_0}$$

where: CPI_N is the CPI for the quarter commencing six months prior to the commencement of quarter N ;

CPI_0 is the number 119.8, being the CPI for the quarter commencing on 1 January 1999; and

quarter N is the quarter for which the CPI escalator is being applied.

The CPI proposed to be used by CMS in calculation of the CPI escalator is the all groups CPI for Perth, Western Australia as published for each quarter by the Australian Bureau of Statistics.

4.8.3 Draft Decision

In assessing the tariff determination proposed in the Access Arrangement, the Regulator re-calculated the Reference Tariffs based on changes to the calculation methodology and the values of input variables discussed in this chapter of the Final Decision. Insufficient information was provided by CMS for the Regulator to be fully satisfied as to values assigned to the input variables and various aspects of the tariff calculation methodology. The Regulator's re-calculation of tariffs provided an indication of the tariffs that could be considered reasonable on the basis of the information currently made available by CMS in the Access Arrangement and on a confidential basis to the Regulator.

In the re-calculation of reference tariffs the Regulator contemplated two scenarios of throughput and valuation of the Initial Capital Base:

- i. an Initial Capital Base of \$36.6 million and a constant throughput over the Access Arrangement Period of around 30 TJ/day; and
- ii. an Initial Capital Base of \$62.5 million (i.e. the upper bound on the Initial Capital Base as set equal to a DORC value for a 60 TJ/day pipeline) and an increasing throughput over the Access Arrangement Period from 40TJ/day in 2000 to 60 TJ/day in 2004.

An Initial Capital Base of \$36.6 million, based on projections of future throughput of around 30 TJ/day, resulted in an indicative tariff of \$0.58/GJ. The tariff calculation for the Initial

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Capital base of \$62.5 million and throughput increasing to 60 TJ/day over the Access Arrangement Period returned a tariff of \$0.57/GJ.

The Regulator considered that CMS should be provided with the opportunity to expand the market for services on the Parmelia Pipeline and have this reflected in the Capital Base, subject to, *inter alia*, the higher value of the Initial Capital Base not giving rise to Reference Tariffs above the current average tariff for the Parmelia Pipeline. On the basis of the Initial Capital Base of \$62.5 million and the increase in throughput to 60 TJ/d, the Regulator calculated a Reference Tariff of \$0.55/GJ over the Access Arrangement Period.

The Regulator therefore considered a reasonable indicative Reference Tariff for the Parmelia Pipeline to be \$0.55 /GJ. The breakdown of this indicative tariff into reservation and commodity charges for the Firm Extended Service and Interruptible Extended Service is as follows.

Regulator's Estimated Tariff: Initial Capital Base of \$62.5 million

	Reservation Charge	Commodity Charge	Total Tariff
Firm Extended Service	\$0.44/GJ	\$0.11/GJ	\$0.55/GJ
Interruptible Extended Service	\$0.40/GJ	\$0.10/GJ	\$0.50/GJ

This tariff of \$0.55/GJ was considered to represent a reasonable balance of interests between the Service Provider and Users for the following reasons.

- The tariff is close to that which would have been derived from a DORC valuation of the pipeline, and therefore consistent with approaches of other Australian regulators to the setting of tariffs. The Initial Capital Base of \$62.5 million determined by the Regulator to be acceptable for the Parmelia Pipeline is equal to 95 percent of the estimated DORC value of a 60 TJ/day pipeline.
- A tariff of marginally less than \$0.55/GJ is consistent with the reasonable expectations of Users that the advent of regulation will provide for an overall reduction in tariffs.

In view of the difference in the tariffs proposed by CMS and those considered reasonable by the Regulator, the Access Arrangement was considered to not meet the requirements of the Code in respect of the Reference Tariffs. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 31

Assumptions of pipeline throughput should be amended to provide for a maximum throughput of 60 TJ/day by the end of the Access Arrangement Period.

Draft Decision Amendment 32

Costs/revenue should be allocated across all services in proportion to forecasts of pipeline capacity to be used for the provision of each type of service. For the purposes of determining Reference Tariffs, this allocation of costs/revenue is equivalent to an assumption that all Users, including Users under existing contracts, are paying the Reference Tariffs.

Draft Decision Amendment 33

The proposed 10 percent lower tariff for the Interruptible Extended Service should be justified by either lower costs attributable to the Interruptible Extended Service than for the Firm Extended Service, or by the lower tariff constituting a prudent discount within the meaning of section 8.43 of the Code.

Draft Decision Amendment 34

The tariff calculation should be revised to ensure consistent treatment of inflation. In particular, the value of the Capital Base should be treated in real terms consistent with the treatment of other input variables to the tariff calculation.

Draft Decision Amendment 35

Inflation adjustments of tariffs should be based on the eight capital city, all-groups CPI measure as published by the Australian Bureau of Statistics.

4.8.4 Responses to Submissions on the Draft Decision

Throughput Forecast

- Australian Pipeline Industry Association

In the Draft Decision, the Regulator has required assumptions of pipeline throughput to be amended to provide for a maximum throughput of 60TJ/day by the end of the Access Arrangement period (A19). Elsewhere in the decision, the Regulator has advised “The Regulator will require CMS to provide further justification for throughput projections prior to approving the Access Arrangement.”

The tariff calculation is based a load forecast made by the Regulator and *OffGAR* should clearly state for the public record (and for the purpose of discussions with the Service Provider) the basis on which it has reached this conclusion for the purpose of the Draft Decision.

For the purposes of determining a Reference Tariff, CMS utilised a throughput forecast of 86 TJ/day (typical value) over the entire Access Arrangement Period. The Regulator considers this forecast to be both unsubstantiated and improbable. In the absence of additional information and for the purposes of the Draft Decision, the Regulator utilised a more conservative throughput forecast based on a gradual increase in throughput over the Access Arrangement Period to a level of 60 TJ/day, approximately equivalent to 200 percent of current throughput. This was an arbitrary assumption, although considered to reasonably recognise the interests of CMS in allowing for some growth in the transmission market over the Access Arrangement Period.

CMS has provided no additional information to the Regulator in regard to the throughput forecast since issue of the Draft Decision. The Regulator has therefore maintained the assumptions as to throughput for the purposes of the Final Decision.

Interruptible Service Tariff

- Western Power

While there is little basis to dispute OffGAR's findings in respect of the apportionment of costs between Reference Services, it is important to distinguish the real cost of providing Firm service as against interruptible service. Unfortunately this would appear to be difficult in the current circumstances of substantial excess capacity on the Parmelia pipeline. While it may be postulated that there may be some lower maintenance costs and even some reduction in compressor costs, the sum of these is not expected to result in a significant cost differential. For Western Power, this is likely to mean little advantage in accepting Interruptible Services.

The Regulator notes that it would be difficult to support an argument for differences in Reference Tariffs between Firm and Interruptible Services based on differences in costs in providing these services. As most costs are fixed with respect to small changes in throughput, any allocation of costs across services would be largely arbitrary.

Notwithstanding this, a lower Reference Tariff for the Interruptible Service may be justified on the basis of it being a prudent discount that serves to promote the efficient use of pipeline capacity. In the Draft Decision, the Regulator requested CMS to provide additional justification. However, after giving this matter further consideration, the Regulator is of the view that the proposed differential between Firm and Interruptible tariffs cannot be rejected as "inefficient" and has approved the differential.

Differences between Reference Tariffs and Existing Tariffs

- CMS

CMS does not share the opinion that the regulatory process must result in reduced tariffs, but rather considers that the process should always strive to achieve tariffs which are just and reasonable.

- Western Power

Western Power notes that OffGAR has determined a Reference Tariff (\$0.55/GJ), which confirms the existing CMS benchmark tariff structure. As Western Power indicated to OffGAR in its previous submission, lower tariffs are required on the Parmelia pipeline to ensure a competitive alternative to the DBNGP, for equivalent distance.

The regulatory process seeks to take into account a wide range of matters including a reasonable expectation of Users that the advent of regulation would not lead to an increase in tariffs. With the Parmelia Pipeline, the Regulator needed to make a decision on the value of assets that have, in all probability, been fully depreciated and which may include a large redundant component, but which nevertheless were purchased by the current Service Provider with an expectation of a certain revenue stream. The Regulator determined an asset value (and corresponding Reference Tariffs) that was considered to constitute a reasonable balance of interests between these competing expectations. This approach was deemed to be appropriate in the specific circumstances of the Parmelia Pipeline.

If tariffs lower than established by this Final Decision are necessary for CMS to be able to compete effectively against the DBNGP, this remains a matter of commercial discretion for CMS and the Regulator does not consider it appropriate or necessary to give attention to this matter in this Final Decision.

4.8.5 Required Amendments to the Access Arrangement

Amendments to the Access Arrangement are required in respect of the Reference Tariffs to reflect revisions to the Initial Capital Base, Capital Expenditure, Operating Expenditure, the Rate of Return, depreciation, and forecasts of pipeline throughput.

The Regulator has also taken into account the impact of the goods and services tax in making adjustments to the Reference Tariff. The Regulator is of the view that it is appropriate to accommodate the pass through of the goods and services tax in the Reference Tariffs as they will be set out in the revised Access Arrangement. CMS has proposed to the Regulator that the goods and services tax be passed through to Reference Tariffs at a rate of 10 percent of the goods-and-services-tax exclusive tariff and the Regulator has assessed the Reference Tariff on this basis. However, prior to the final approval of a Reference Tariff, the Regulator will require CMS to submit an independent accounting opinion on the appropriateness of the methodology used in determining its proposed GST pass-through proportion for Reference Tariff purposes taking into account the tax savings available.

The revised Reference Tariffs are as follows.

Proposed and revised Reference Tariff (1999 dollar values)

	MDQ Charge (\$/GJ of MDQ/day)	Commodity Charge (\$/GJ throughput)	Indicative Average Tariff at 100% load factor (\$/GJ throughput)
<i>Firm Extended Service</i>			
Proposed Tariff	0.664	0.166	0.830
Revised Tariff (excl. goods and services tax)	0.440	0.110	0.550
Revised Tariff (incl. goods and services tax)	0.484	0.121	0.605
<i>Interruptible Extended Service</i>			
Proposed Tariff	0.598	0.149	0.747
Revised Tariff (excl. goods and services tax)	0.396	0.099	0.495
Revised Tariff (incl. goods and services tax)	0.436	0.109	0.545

Consideration of the impact of the goods and services tax is also important in the escalation of the Reference Tariff to account for inflation. The Regulator is of the opinion that the CPI measure used for the inflation escalation of Reference Tariffs should be exclusive of the effects of the goods and service tax. The Regulator's preferred method for adjusting for the inflationary effects of the goods and services tax is to correct the CPI measure, as published by the Australian Bureau of Statistics, by the forecast inflationary effect of the goods and

services tax as determined by the Commonwealth Treasury, being 2.75 percentage points.²⁴ The Access Arrangement is required to be amended to this effect.

Amendment 28 (was Draft Decision Amendment 31)

The Access Arrangement and Access Arrangement Information should be amended to reflect a forecast of pipeline throughput as follows.

	2000	2001	2002	2003	2004
Throughput (TJ/day)	40	45	50	55	60

Amendment 29 (was Draft Decision Amendment 32)

The Access Arrangement and Access Arrangement Information should be amended to reflect an allocation of costs/revenue as if all Users, including Users under existing contracts, are paying the Reference Tariffs.

Amendment 30 (was Draft Decision Amendment 34)

The Access Arrangement and Access Arrangement Information should be amended such that the tariff calculation is undertaken with a consistent treatment of inflation. In particular, the value of the Capital Base should be treated in real terms consistent with the treatment of other input variables to the tariff calculation.

Amendment 31

The Access Arrangement and Access Arrangement Information should be amended to provide for the following Reference Tariffs, inclusive of the goods and services tax.

Firm Extended Service Reservation Charge:	\$0.484/GJ of MDQ/day
Firm Extended Service Capacity Charge:	\$0.121/GJ
Interruptible Extended Service Reservation Charge:	\$0.436/GJ of MDQ/day
Interruptible Extended Service Capacity Charge:	\$0.109/GJ

Amendment 32 (was Draft Decision Amendment 35)

The Access Arrangement and Access Arrangement Information should be amended such that inflation adjustments of tariffs are based on the eight capital city, all-groups CPI measure as published by the Australian Bureau of Statistics. For the purposes of setting the Reference Tariffs for 2001/02, the CPI measure for 2000/01 should be reduced by 2.75 percent to account for the impact of the goods and services tax.

²⁴ Peter Costello, M.P., Treasurer of the Commonwealth of Australia, and John Fahey, M.P., Minister for Finance and Administration, May 2000. *2000-01 Budget Paper No. 1 Budget Strategy and Outlook 2000-01*, Statement 3 Part V: The Timing of Price Changes.

4.9 INCENTIVE MECHANISM

4.9.1 Access Code Requirements

Sections 8.44 to 8.46 of the Code state the principles for establishing an Incentive Mechanism within the Reference Tariff Policy and the objectives which the Incentive Mechanism should seek to meet.

Section 8.44 of the Code requires that the Reference Tariff Policy should, wherever the Regulator considers appropriate, contain a mechanism that permits the Service Provider to retain all, or a share of, any returns to the Service Provider from the sale of a Reference Service during an Access Arrangement Period that exceeds the level of returns expected at the beginning of the Access Arrangement Period (an Incentive Mechanism), particularly where the additional returns are attributable (at least in part) to the efforts of the Service Provider. Such additional returns may result, amongst other things, from lower Non-Capital Costs or greater sales of Services than forecast.

Section 8.45 states that an Incentive Mechanism may include (but is not limited to) the following:

- (a) specifying the Reference Tariff that will apply during each year of the Access Arrangement Period based on forecasts of all relevant variables (and which may assume that the Service Provider can achieve defined efficiency gains) regardless of the realised values for those variables;
- (b) specifying a target for revenue from the sale of all Services provided by means of the covered pipeline, and specifying that a certain proportion of any revenue received in excess of that target shall be retained by the Service Provider and that the remainder must be used to reduce the Tariffs for all Services provided by means of the covered pipeline (or to provide a rebate to Users of the covered pipeline); and
- (c) a rebate mechanism for Rebatable Services pursuant to section 8.40 that provides for less than a full rebate of revenues from the Rebatable Services to the Users of the Reference Service.

Section 8.46 states that an Incentive Mechanism should be designed with a view to achieving the following objectives:

- (a) to provide the Service Provider with an incentive to increase the volume of sales of all Services, but to avoid providing an artificial incentive to favour the sale of one Service over another;
- (b) to provide the Service Provider with an incentive to minimise the overall costs attributable to providing those Services, consistent with the safe and reliable provision of such Services;
- (c) to provide the Service Provider with an incentive to develop new Services in response to the needs of the market for Services;
- (d) to provide the Service Provider with an incentive to undertake only prudent New Facilities Investment and to incur only prudent Non-Capital Costs, and for this

incentive to be taken into account when determining the prudence of New Facilities Investment and Non-Capital Costs for the purposes of sections 8.16 and 8.37; and

- (e) to ensure that Users and Prospective Users gain from increased efficiency, innovation and volume of sales (but not necessarily in the Access Arrangement Period during which such increased efficiency, innovation or volume of sales occur).

4.9.2 Access Arrangement Proposal

CMS addressed Incentive Mechanisms in section 7.6 of the Access Arrangement Information. CMS proposed that the price path approach adopted in the determination of Total Revenue provides an incentive to seek efficiency improvements and reduce costs through allowing CMS to maintain Reference Tariffs at the predetermined level and capture any benefits from the cost reductions. CMS does not propose any sharing of benefits with Users during the Access Arrangement Period.

4.9.3 Draft Decision

The Regulator considered that CMS should include an Incentive Mechanism in the Reference Tariff Policy that addresses the objectives set out in section 8.46 of the Code. The Incentive Mechanism may provide for sharing the benefits of efficiency gains and cost savings with users either within the Access Arrangement Period or in Access Arrangement Periods subsequent to the Period in which the efficiency gains were made, or both.

The Access Arrangement was considered to not meet the requirements of the Code in respect of an Incentive Mechanism. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 36

The Incentive Mechanism should be amended to provide for sharing the benefits of efficiency gains and cost savings with Users either within the Access Arrangement Period or in Access Arrangement Periods subsequent to the Period in which the efficiency gains were made, or both. In specifying the Incentive Mechanism, CMS should outline an acceptable CPI-X framework for accommodating inflation and efficiency gains in the determination of Reference Tariffs.

4.9.4 Responses to Submissions on the Draft Decision

CPI-X Incentive Mechanism

- Australian Pipeline Industry Association

The Regulator has determined that a reasonable indicative Reference Tariff is \$0.55 per GJ (Page A18). Beyond this the Regulator has determined that a so-called CPI-X incentive mechanism should also apply “With incorporation of a CPI-X incentive mechanism into the Access Arrangement, tariffs would be lower than would otherwise be the case” and “...consistent with the reasonable expectations of Users that regulation will provide for an overall reduction in tariffs.” (A19).

This requirement, rather than representing an incentive mechanism, has been designed and imposed to ensure further tariff reductions over the life of the Access Arrangement. The main purpose appears to be to justify the role of the Regulator as the champion of lower tariffs. “X” is not defined in the Draft Decision, so the outcome adds to regulatory uncertainty for the pipeline owner.

As a matter of principle, APIA cannot accept the CPI-X methodology because it is not reflective of the cost structure faced by pipeline owners and operators. The formula bears no relationship to the Service Provider's ability to reduce costs. It is well recognised that pipeline operations are capital intensive, with most of the costs (typically 80 per cent or more) relating to capital expenses. Operating and maintenance costs represent a very small proportion of the overall costs.

Given these demonstrated cost drivers for commercial pipeline operation, the adoption of a CPI-X formula in relation to the Parmelia Pipeline is inappropriate because the major drivers for pipeline operation are capital related, and are not linked to the CPI.

However, APIA believes that there is a strong case for a genuine incentive mechanism enabling the fixed costs to be shared with a greater number of gas customers. The most efficient means of achieving this outcome is to provide a market growth incentive, allowing the Service Provider to increase its throughput between Access Arrangement Review Periods and to retain a proportion of additional revenues between Access Arrangement review periods.

The requirement that a CPI-X mechanism must apply is unduly restrictive and Offgar should make provision for the Service Provider to negotiate alternative incentive mechanisms.

- Western Power

It remains unclear whether CPI adjustments may be made quarterly or annually. Although OffGAR has allowed the option of including efficiency savings directly in the costs or indirectly in the X adjustment to the CPI, Western Power would prefer to see this explicit in the CPI adjustment.

- CMS

The Parmelia Pipeline is subject to the full rigour of competition. It competes directly with the DBNGP in the transmission market and with AlintaGas in the distribution market.

Both competitors enjoy economies of scale which are simply not available to the Parmelia Pipeline because of the marked differences in size and geographical extent between it and its competitors.

The Parmelia pipeline therefore does not need artificial incentives to operate more efficiently. Because of the differences in cost structures arising from the difference scales of operation of the Parmelia Pipeline and its competitors (i.e. both the DBNGP and AlintaGas hold a significant *ceteris paribus* competitive advantage because of their greater economies of scale), the Parmelia Pipeline can only compete on the basis of greater efficiency of utilisation of resources.

Section 8.10(i) of the Code states that the cost structures of competing pipelines should be considered when setting the Initial Capital Base for a pipeline. Correspondingly, it is appropriate to consider such cost structures when considering tariffs.

On this basis, the value of factor X should be set to zero. Real, rather than synthetic market discipline will ensure that future Parmelia Pipeline capex and opex will reflect the most efficient utilisation of resources.

The Regulator has given further consideration to the requirement for a CPI-X form of price control to be used for the Parmelia Pipeline. Regulatory practice in other Australian jurisdictions has generally been to use a CPI-X mechanism as a tariff "smoothing" process such that tariffs change over the Access Arrangement Period to reflect reductions in unit costs arising from both efficiency gains in operating expenditure and increases in gas throughput.²⁵ For the Parmelia Pipeline, reductions in unit costs arising from increases in gas throughput have already been taken into account in the determination of the Reference Tariffs through a Net Present Value methodology. Given this, and that benefits of efficiency gains in operating and capital costs will be passed on to Users in the next Access Arrangement Period, the

²⁵ For example, IPART, December 1999, Final Decision for the Albury Gas Company Ltd; Independent Gas Pipelines Access Regulator Western Australia, June 2000, Final Decision for the Mid West and South West Distribution Systems.

Regulator does not require implementation of a CPI-X tariff variation mechanism to be included in the Access Arrangement. However, the escalation of tariffs for the Parmelia Pipeline will continue to be subject to the adjustment for the goods and services tax, as per Amendment 32 of this Final Decision.

4.9.5 Required Amendments to the Access Arrangement.

The Regulator does not require any amendments to the Access Arrangement in respect of an Incentive Mechanism.

5. FEES AND CHARGES

5.1 INTRODUCTION

The Access Arrangement provides for CMS to levy a range of fees and charges on Users and Prospective Users of services provided in respect of the Parmelia Pipeline. These fees and charges comprise:

- a Service Request Administration Fee levied on Prospective Users for lodgement of an Access Request;
- charges levied on Users to recoup costs arising from Statutory Charges incurred by CMS.
- Quantity Variation Charges, levied on Users in certain circumstances where quantities of gas received at a Receipt Point and delivered to a Delivery Point differ for the quantities specified in the relevant Service Agreement and/or nominations by the User; and
- charges levied on Users to recoup costs incurred by CMS for unaccounted for gas and system use gas.

These fees and charges comprise a pecuniary impost on Users and Prospective Users in addition to service tariffs. For this reason, the Regulator considered that an assessment of fees and charges was necessary in evaluating the Access Arrangement. Furthermore, matters relating to fees and charges were raised in several public submissions on the Access Arrangement and the Regulator is obliged to consider these submissions.

5.2 ACCESS CODE REQUIREMENTS

The Code does not address the levying of fees and charges by a Service Provider on Users or Prospective Users other than through Reference Tariffs. Sections 3.1 to 3.20 of the Code, that outline the required scope of an Access Arrangement, do not explicitly require fees and charges to be specified. However, to the extent that fees and charges comprise part of the Terms and Conditions for provision of Reference Services, such matters fall within the scope of Section 3.6 of the Code that requires an Access Arrangement to include the terms and conditions on which the Service Provider will supply each Reference Service.

In considering the fees and charges arising in respect of a Service Agreement for a Reference Service, the Regulator gave attention to the requirements of section 3.6 of the Code that requires that the terms and conditions for provision of Reference Services must, in the Regulator's opinion, be reasonable. In respect of any fees and charges levied otherwise than under a Service Agreement for a Reference Service, the Regulator considered matters set out in section 2.24 of the Code:

- (a) the Service Provider's legitimate business interests and investment in the Covered Pipeline;
- (b) firm and binding contractual obligations of the Service Provider or other persons (or both) already using the Covered Pipeline;

- (c) the operational and technical requirements necessary for the safe and reliable operation of the Covered Pipeline;
- (d) the economically efficient operation of the Covered Pipeline;
- (e) the public interest, including the public interest in having competition in markets (whether or not in Australia);
- (f) the interests of Users and Prospective Users; and
- (g) any other matters that the Regulator considers are relevant.

5.3 SERVICE REQUEST ADMINISTRATION FEE

5.3.1 Access Arrangement Proposal

Sections 6.1 and 6.16 of the Access Arrangement provide for CMS to charge a fee of \$10,000 for lodgement of an Access Request by a Prospective User with CMS. This Service Request Administration Fee is non-refundable except for (i) at the discretion of CMS; or (ii) where the Prospective User is notified that no queue exists for the service requested and CMS and the Prospective User do not enter into a Service Agreement. The justification provided by CMS for the fee is (i) to indicate a Prospective User's bona fides in lodging an Access Request; and (ii) to defray CMS's costs and expenses in receiving, reviewing, processing and administering the Access Request. No justification is provided by CMS for the value of the fee.

5.3.2 Draft Decision

In assessing whether the charging of the Service Request Administration Fee is a reasonable practice on the part of CMS, the Regulator considered two matters.

- i. Whether the fee reflects, or is likely to reflect, costs reasonably incurred by CMS in processing an Access Request.
- ii. The practice of other Service Providers in respect of similar fees.

The charging of a Service Request Administration Fee was found to be inconsistent with both the recovery of reasonable costs and common industry practice. Furthermore, where costs are incurred by CMS in processing an Access Request, the Code provides for the recovery of these costs from the Prospective User without the necessity of an up-front fee. The Access Arrangement was therefore considered to not be reasonable in respect of this fee, and thus to not meet the requirements of the Code. The required amendment to the Access Arrangement was as follows.

Draft Decision Amendment 37

Sections 6.1 and 6.16 of the Access Arrangement should be deleted to remove provision for lodgement of an Access Request to be conditional on payment of a Service Request Administration Fee.

5.3.3 Responses to Submissions on the Draft Decision

No submissions were received in respect of Draft Decision Amendment 37.

5.3.4 Required Amendments to the Access Arrangement

Notwithstanding the absence of public submissions on the requirement of the Draft Decision to remove provision for a Service Request Administration Fee from the Access Arrangement, the Regulator has reconsidered the matter.

CMS has informally put forward a view to the Regulator that the a service request fee is desirable for the purposes of covering administration costs associated with processing an Access Request and discouraging vexatious Access Requests. The Regulator accepts that while a Service Request Administration Fee is not common practice within the pipeline industry, recovery of costs incurred in processing an Access Request is consistent with the intent of section 5.5 of the Code and not unduly contrary to the interests of Users. Moreover, a fixed charge to recover administrative costs that would occur for any Access Request may be a more effective means of cost recovery than making allowance for such costs in the overall operating cost budget for the pipeline, or than establishing costs for each individual Access Request. However, the Regulator does not consider that a fee of \$10,000 is substantiated on the basis of cost recovery. The Regulator will therefore require the Access Arrangement to be amended to provide for a Service Request Administration Fee of not more than \$1000.

Amendment 33 (was Draft Decision 37)

Sections 6.1 and 6.16 of the Access Arrangement should be amended to provide for a maximum Service Request Administration Fee of no more than \$1000.

5.4 STATUTORY CHARGES

5.4.1 Access Arrangement Proposal

Section 14.2(c) of the General Terms and Conditions requires Users to pay to CMS an amount equal to statutory charges such as financial institutions duty which CMS is liable to pay.

5.4.2 Draft Decision

In the Draft Decision, the Regulator took the view that statutory charges such as financial institutions duty should be regarded as a normal business cost and incorporated into estimates of Operating Expenditure for the purposes of determining tariffs and, in general, there is no commercial justification for passing these costs on to Users as a charge in addition to service tariffs. However, the Regulator accepted representation from CMS that the separate recovery of statutory charges is an established practice in their current business. Consequently the Regulator did not require amendments to the Access Arrangement on this matter.

5.4.3 Responses to Submissions on the Draft Decision

No submissions were received in respect of provisions for CMS to recover imposts from Users as charges in addition to Reference Tariffs.

5.4.4 Required Amendments to the Access Arrangement

Subsequent to issuing the Draft Decision, the Regulator has obtained advice on the ability of a Service Provider to levy unspecified charges for a Reference Service that are additional to the Reference Tariff.

The Regulator is of the view that the Code does not provide for unspecified charges to be levied on Users that are in addition to Reference Tariffs other than by a review of the Access Arrangement. The Code does not provide for a User to be charged any amount other than the Reference Tariff for a Reference Service. Nor does the Code appear to accommodate a change in a Reference Tariff to pass through a tax or other impost without a review of the Access Arrangement in accordance with provisions of section 2 of the Code. Consequently, the Regulator requires the Access Arrangement to be amended to remove the provision for CMS to recover from Users any costs incurred by CMS as a result of the introduction of new statutory charges.

Amendment 34

Section 21 of the General Terms and Conditions should be amended to remove the provision for charges to be levied on Users, in addition to the Reference Tariff, to recover any impost imposed on or paid or payable by CMS in relation to the provision of Reference Services.

5.5 QUANTITY VARIATION CHARGES

5.5.1 Access Arrangement Proposal

Section 10 of the General Terms and Conditions provides for CMS to levy charges (Quantity Variation Charges) on Users in certain circumstances where Users do not manage the receipt of gas into the pipeline and/or the delivery of gas from the pipeline in accordance with relevant conditions of Service Agreements and/or Users' daily nominations of intended gas transportation. CMS states that the purpose of Quantity Variation Charges is to provide an incentive to Users to utilise the Parmelia Pipeline only in the manner intended, and thereby avoid operational disturbances and disadvantage to other pipeline Users.

Section 10 of the General Terms and Conditions provides for CMS to levy Quantity Variation Charges in respect of several circumstances. The circumstances and the formulae for calculation of Quantity Variation Charges are defined in schedule 2 of the General Terms and Conditions, and summarised as follows.

- Cumulative Gas Imbalance – an arithmetic sum of daily gas imbalances which are calculated as the difference in the quantity of gas received into the pipeline and the quantity of gas delivered from the pipeline for individual Gas Days. A Cumulative Gas

Imbalance Charge may be levied if the Cumulative Gas Imbalance falls outside of a specified tolerance. The Cumulative Gas Imbalance Charge is determined as a multiple of the tariff for the service under which gas transportation occurs, in accordance with a formula that takes into account the magnitude of the Cumulative Gas Imbalance relative to the MDQ of the User. The Cumulative Gas Imbalance Charge per unit of the Cumulative Gas Imbalance is an increasing function of the Cumulative Gas Imbalance.

- Daily Overrun – an excess of the quantity of gas received or delivered into or from the pipeline for a particular Gas Day over the quantity nominated to be received or delivered on that Gas Day. A Daily Overrun Charge may be levied if the Daily Overrun exceeds a specified tolerance. The Daily Overrun Charge is determined as a multiple of the tariff for the service under which gas transportation occurs, in accordance with a formula that takes into account the magnitude of the Daily Overrun relative to the receipt or delivery quantity nominated by the User. The Daily Overrun Charge per unit of the Daily Overrun is an increasing function of the Daily Overrun.
- Daily Underrun – a deficit of the quantity of gas received or delivered into or from the pipeline for a particular Gas Day under the quantity nominated to be received or delivered on that Gas Day. A Daily Underrun Charge is determined on the same basis as the Daily Overrun Charge.
- Hourly Overrun – an excess of the maximum quantity of gas received or delivered into or from the pipeline for any hour of a Gas Day over the maximum hourly quantity permitted for particular Receipt Points or Delivery Points in accordance with a User’s nomination for that Gas Day. An Hourly Overrun Charge may be levied if the Hourly Overrun exceeds a specified tolerance. The Hourly Overrun Charge is determined as a multiple of the tariff for the service under which gas transportation occurs, in accordance with a formula that takes into account the magnitude of the Hourly Overrun relative to the maximum hourly quantity determined for a the relevant User and the relevant Receipt Point or Delivery Point. The Hourly Overrun Charge per unit of the Hourly Overrun is an increasing function of the Hourly Overrun.
- Maximum Flow Rate Overrun – an excess of the peak flow rate of gas at a Receipt Point or Delivery Point for a particular hour over the specified maximum flow rate for the Receipt Point or Delivery Point. A Maximum Flow Rate Overrun Charge may be levied for any Maximum Flow Rate Overrun. The Maximum Flow Rate Overrun Charge is determined as a multiple of the tariff for the service under which gas transportation occurs, in accordance with a formula that takes into account the magnitude of the Maximum Flow Rate Overrun relative to the maximum flow rate for the relevant User and the relevant Receipt Point or Delivery Point. The Maximum Flow Rate Overrun Charge per unit of the Maximum Flow Rate Overrun is an increasing function of the Maximum Flow Rate Overrun.

5.5.2 Draft Decision

In assessing the reasonableness of the Quantity Variation Charges proposed by CMS, the Regulator gave consideration to common practice of the gas transportation industry in respect of such charges. The schedule of Quantity Variation Charges proposed by CMS for the Parmelia Pipeline differ substantially from the charges provided for in other pipeline Access Arrangements in several respects, as follows.

- Quantity Variation Charges apply in a greater range of circumstances than is common practice in the industry.
- No explicit provision for grace periods in which a User may correct gas imbalances before the Cumulative Gas Imbalance Charge will apply.
- The Quantity Variation Charges of CMS are substantially higher than would be applied by other Service Providers where the magnitude of a quantity imbalance is more than about 20 percent of the benchmark quantity from which the imbalance is calculated. The charges applicable under other Access Arrangements examined for the purposes of the Draft Decision are in the range of 100 to 350 percent of the relevant service tariff. The proposed charges of CMS may be substantially in excess of these rates for large quantity imbalances.

The Access Arrangement was considered to not meet the requirements of the Code in respect of the proposed Quantity Variation Charges. Required amendments to the Access Arrangement were as follows.

Draft Decision Amendment 38

Section 10 and schedule 2 of the General Terms and Conditions should be amended to remove provision for CMS to apply Quantity Variation Charges in respect of Hourly Overruns and Maximum Flow Rate Overruns.

Draft Decision Amendment 39

Section 10 and schedule 2 of the General Terms and Conditions should be amended to provide Users with a grace period to correct gas imbalances before Quantity Variation Charges may be applied in respect of the imbalances.

Draft Decision Amendment 40

Section 10 and schedule 2 of the General Terms and Conditions should be amended to provide for maximum rates of Quantity Variation Charges to be 350 percent of the service tariff for the relevant service per GJ of the quantity variation.

5.5.3 Responses to Submissions on the Draft Decision

- Office of Energy

The Office of Energy notes and supports the Regulator's determination that the Quantity Variation Charges proposed by CMS are unreasonable. The Office of Energy agrees that review and consideration of common practices in the gas transportation industry in respect of such charges assists in assessing their reasonableness. However, an analysis of the costs (opportunity or actual) and benefits addressed by such penalties in light of the capacity and operation specific to this pipeline, together with potential customer usage, would establish a more rational and potentially more reasonable basis for the charges. Such analysis would also help in identifying other related cost-reflective services that the pipeline could offer in light of its particular circumstances.

For instance, such analysis may be able to determine whether, in light of the under-utilised capacity of the pipeline and the desire for inlet and outlet flexibility, penalties for hourly and maximum flow rate overrun are more suitable than penalties for a daily overrun. It may also be able to determine whether a parking service is feasible and is a service sought by a significant part of the market.

Related to the above issues, though it is recognised that an Access Arrangement for the DBNGP is yet to be submitted to the Regulator, the Regulator may wish to also consider the DBNGP's current arrangements as

outlined in its access manual, in particular Sub-chapter 3.5 – Overrun Capacity and Sub-chapter 7.4 – Balancing and Peaking.

The Office of Energy also requests that the Regulator re-consider the issue raised by AlintaGas, in its submission to the Regulator, related to nominations being the basis for the overrun penalties. In respect of the daily, hourly and maximum flow rates overruns, it would appear that the MDQ or the nomination, whichever is the larger quantity, would be a more reasonable basis for the overrun penalties. It is also noted that the MDQ is the basis for the overrun penalties in the case of other pipelines cited by the Regulator (as presented in the Quantity Variation Charges table on page 141, Part B of the Draft Decision).

- Western Power

Western Power remains concerned that OffGAR has accepted the tolerances proposed by CMS, specifically the provision for Quantity Variation Charges to be levied on imbalances over 1 TJ rather than consistently applying an 8percent tolerance. As a potential significant user of the Parmelia pipeline, Western Power again seeks to have this varied.

OffGAR is referred to the example (paragraph 2.3) provided in Western Power’s submission of the 11 June 1999, which illustrates how a large user may be effectively limited to an imbalance approaching 4 percent. In Western Power’s opinion, an 8 percent intolerance should be applied “across the board”, particularly, as the number of Users increases and as the total throughput in the Parmelia pipeline approaches capacity.

In view of the submissions on the Quantity Variation Charges, the Regulator gave further consideration to these matters, particularly the potential impacts of quantity variations on pipeline operation and hence the justification for, and appropriate structure of, penalty provisions and charges. Specific charges are discussed as follows.

Imbalance Charge

CMS has proposed a cumulative gas imbalance charge that is an increasing function of a Cumulative Gas Imbalance in excess of a gas imbalance tolerance, as follows (charge in dollars and gas quantities in TJ).

$$\text{Cumulative Gas Imbalance Charge} = \left(\left(\frac{\text{Cumulative Gas Imbalance}}{\text{Gas Imbalance Tolerance}} - 1 \right)^2 \right) \times 1000 \times 40 \times \frac{1}{\text{MDQ}} \times \left(\frac{\text{Reservation Tariff}}{\text{Tariff}} + \frac{\text{Commodity Tariff}}{\text{Tariff}} \right)$$

In the Draft Decision, the Regulator indicated a requirement (Draft Decision Amendment 39) for the Access Arrangement to be amended to provide Users with a grace period to correct gas imbalances before Quantity Variation Charges may be applied in respect of the imbalances. Further to clarification provided by CMS, the Regulator notes that a cumulative imbalance charge would not be levied on a User until the termination of a service agreement, and hence there is no requirement for a grace period for a User to remedy an imbalance prior the charge being imposed. The Regulator will therefore not require the Access Arrangement to be amended to make provision for a grace period before the cumulative imbalance charge applies.

The Regulator does however have other concerns with the cumulative imbalance charge.

As noted in the Draft Decision, the Regulator regards the very high gas imbalance charges that may arise from gas imbalances to be overly punitive and unjustified. For this reason, the

Regulator indicated a required amendment in the Draft Decision for the unit charge to be limited to 350 percent of the total service tariff for the relevant service (Draft Decision Amendment 40). The Regulator will maintain the requirement for this amendment.

Upon further consideration the Regulator has an additional concern with the proposed determination of the gas imbalance tolerance. CMS has proposed that the tolerance be the *lesser* of eight percent of MDQ or one terajoule. Determination of the threshold in this manner would result in “large” Users of pipeline capacity being subject to a the cumulative gas imbalance charge at a lower percentage of gas imbalance than “small” Users of pipeline capacity. The Regulator considers this to be inequitable, and will require the tolerance to be altered to be determined as a flat rate of eight percent of MDQ.

Daily Overrun and Underrun Charges

CMS has proposed daily overrun/underrun charges that would apply to an excess/deficit in the quantity of gas received or delivered into or from the pipeline for a particular Gas Day over/under the quantity nominated to be received or delivered on that Gas Day. Charges may be levied if the overrun/underrun exceeds a specified tolerance, and determined as a multiple of the tariff for the service under which gas transportation occurs and as an increasing function of the overrun/underrun, as follows (charge in dollars and gas quantities in TJ).

$$\text{Daily Overrun Charge} = \left(\frac{\text{Daily Overrun} - \text{Daily Tolerance}}{\text{Quantity}} \right)^2 \times 1000 \times 40 \times \frac{1}{\text{Nominated Quantity}} \times \left(\frac{\text{Reservation Tariff} + \text{Commodity Tariff}}{\text{Tariff}} \right)$$

The daily overrun tolerance is the lesser of eight percent of the nominated gas quantity for the day or one terajoule.

On further consideration of the proposed daily overrun and underrun charges, the Regulator has several concerns as to the reasonableness of these charges.

Firstly, the application of daily overrun and daily underrun charges to both Receipt Points and Delivery Points may result in a User being penalised twice for the same action as gas receipt and gas delivery are linked by balancing requirements. As such, the Regulator considers that imposing overrun/underrun charges in respect of gas quantities received at Receipt Points is neither reasonable nor justified. The Regulator will therefore require the Access Arrangement to be revised to remove provision for application of daily overrun and underrun charges to Receipt Points.

Secondly, an underrun at a Delivery Point does not reduce a Service Provider’s ability to operate a pipeline or provide services to other Users. Consequently, the Regulator considers that that the imposition of a penalty in respect of daily underruns is not justified.

Thirdly, as noted in the Draft Decision, the Regulator considers the very high overrun/underrun charges that may arise from large overruns/underruns to be overly punitive and unjustified. For this reason, the Regulator indicated a required amendment in the Draft Decision for the unit penalty charge to be limited to 350 percent of the total service tariff for

the relevant service (Draft Decision Amendment 40). The Regulator will maintain the requirement for this amendment.

Fourthly, the Regulator has concerns with the proposed determination of the daily overrun tolerance. The Regulator has noted the concerns expressed in public submissions in regard to the tolerance being based on nominated gas quantity for the day rather than the contracted MDQ. “Standard” industry practice in gas transmission is for overrun charges to be based on contracted MDQ rather than nominated gas quantity, and either a contractual requirement for nominations to be made in good faith²⁶ or variations between nominated and actual gas deliveries to be penalised through a separate variation charge.²⁷ In view of this, the Regulator considers that the daily overrun charge proposed by CMS is unduly punitive and the Access Arrangement should be amended such that the daily overrun is determined on the basis of an excess of gas delivery over the maximum daily quantity. The Regulator notes that, in conjunction with this amendment, CMS may wish to include a Daily Variation Charge on differences between nominated and delivered quantities of gas, subject to the satisfaction of the Regulator as to the design of the charge.

Finally, CMS has proposed that the daily overrun tolerance be the *lesser* of eight percent of the nominated gas quantity for the day or one terajoule. Determination of the tolerance in this manner would result in “large” Users of pipeline capacity being subject to a daily overrun charge at a lower percentage of MDQ than “small” Users of pipeline capacity. The Regulator considers this to be inequitable, and will require the tolerance to be altered to be determined as a flat rate of eight percent of MDQ.

Hourly Overrun Charge

CMS has proposed an hourly overrun charge that would apply to an excess in the quantity of gas received into or delivered from the pipeline in any hour of a Gas Day over an hourly overrun tolerance. The hourly overrun tolerance is the lesser of 0.05 TJ or eight percent a User’s maximum hourly quantity (MHQ), determined as 110 percent of one twenty-fourth of the Users daily nomination for the Receipt Point or Delivery Point. The charge is determined as follows (charge in dollars and gas quantities in TJ).

$$\text{Hourly Overrun Charge} = \left(\frac{\text{Hourly Overrun Quantity} - \text{Hourly Overrun Tolerance}}{\text{Hourly Overrun Tolerance}} \right)^2 \times 1000 \times 40 \times \frac{1}{\text{MHQ}} \times \left(\frac{\text{Reservation Tariff}}{\text{Commodity Tariff}} + \text{Commodity Tariff} \right)$$

The Regulator indicated in the Draft Decision that the Access Arrangement should be amended to remove provision for this charge, on the basis that the levying of such a charge is

²⁶ East Australian Pipeline Limited, Proposed Access Arrangement for the Moomba to Sydney Pipeline System, 5 May 1999.

Envestra Limited, Proposed Access Arrangement for the Riverland Pipeline, 11 November 1999.
Tubridgi Parties, Proposed Access Arrangement for the Tubridgi Pipeline System, 21 October 1999.

²⁷ AGL Pipelines, Proposed Access Arrangement for the A madeus Basin to Darwin Pipeline, 28 June 1999.
AGL Pipelines (NSW) Pty Ltd, Access Arrangement for the Central West Pipeline.
Epic Energy, Proposed Access Arrangement Dampier to Bunbury Natural Gas Pipeline, 15 December 1999.

not common industry practice. The Regulator notes, however, that Access Arrangements for other gas transmission pipelines typically provide for the Service Provider to restrict gas deliveries in excess of a User's maximum hourly quantity, but that such a provision is not included in the General Terms and Conditions for the Parmelia Pipeline. In view of this, the Regulator considers that provision in the Access Arrangement for an hourly overrun charge is reasonable, subject to the Access Arrangement being amended to address concerns as outlined below.

The Regulator had several concerns with the proposed hourly overrun charge, similar to those concerns outlined above in relation to daily overrun and underrun charges.

Firstly, the application of hourly overrun charges to Receipt Points appears redundant given the ability of CMS, under section 5.2 of the General Terms and Conditions, to control gas receipt into the Parmelia Pipeline for transportation. The Regulator will therefore require the Access Arrangement to be revised to remove provision for application of hourly overrun charges to Receipt Points.

Secondly, as noted in the Draft Decision, the Regulator considers the very high hourly overrun charges that may arise from large overruns to be overly punitive, unjustified and not reasonable. For this reason, the Regulator indicated a required amendment in the Draft Decision for the unit penalty charge to be limited to 350 percent of the total service tariff for the relevant service (Draft Decision Amendment 40). The Regulator will maintain the requirement for this amendment.

Thirdly, the Regulator has concerns with the proposed determination of the maximum hourly quantity. This quantity is based on the nominated gas quantity for the day rather than the contracted MDQ. "Standard" industry practice in gas transmission is for overrun charges to be based on contracted MDQ rather than nominated gas quantity. In view of this, the Regulator considers that the hourly overrun charge proposed by CMS is unduly punitive and the Access Arrangement should be amended to base the maximum hourly quantity on a Users MDQ.

Finally, the Regulator has concerns with the proposed determination of the hourly overrun tolerance. CMS has proposed that the hourly overrun tolerance be the *lesser* of eight percent of the nominated gas quantity for the day or one terajoule. Determination of the tolerance in this manner would result in "large" Users of pipeline capacity being subject to a daily overrun charge at a lower percentage of MHQ than "small" Users of pipeline capacity. The Regulator considers this to be inequitable, and will require the tolerance to be altered to be determined as a flat rate of eight percent of MHQ.

Maximum Flow Rate Overrun Charge

CMS has proposed a maximum flow rate overrun charge that may be levied against a User if the peak flow rate at a Receipt Point or Delivery Point for that User is greater than the maximum flow rate at the Receipt Point or Delivery Point. The peak flow rate for a particular hour is defined as the highest instantaneous gas flow rate during that hour (in TJ/day). The maximum flow rate for a particular hour is defined as the User's MDQ multiplied by 1.2. The charge is determined as follows (charge in dollars and gas quantities in TJ).

$$\frac{\text{Maximum FlowRate}}{\text{OverrunCharge}} = \left(\frac{\text{Maximum FlowRate}}{\text{Overrun}} \right)^2 \times 1000 \times 40 \times \frac{1}{\text{MaximumFlowRate}} \times \left(\frac{\text{Reservation Tariff}}{\text{Commodity Tariff}} \right)$$

The Regulator indicated in the Draft Decision that the Access Arrangement should be amended to remove provision for this charge, on the basis that the levying of such a charge is not common industry practice. Furthermore, the application of a maximum flow rate overrun charge in respect of a Receipt Point is made redundant by the ability of CMS, under section 5.2 of the General Terms and Conditions, to control gas receipt into the Parmelia Pipeline. The Regulator therefore maintains the position that the charge is not reasonable and requires that the Access Arrangement be amended to remove provision for the charge.

Penalty Revenue

The Regulator has noted the actual or proposed practice of several other Australian transmission pipelines for revenues gained by imbalance and/or overrun penalties to be rebatable to non-offending Users.²⁸ The Regulator considers that is a reasonable practice where the forecast revenue from the penalties is not considered in the determination of Reference Tariffs, as is the case for the Parmelia Pipeline, and therefore requires that the Access Arrangement be amended to provide for revenue from overrun charges and imbalance charges to be rebatable revenue as if overruns and imbalances were rebatable services within the meaning of the Code.

5.5.4 Required Amendments to the Access Arrangement

Amendment 35

Section 10 and schedule 2 of the General Terms and Conditions should be amended to remove provision for CMS to apply Quantity Variation Charges in respect of Maximum Flow Rate Overruns.

Amendment 36

The General Terms and Conditions should be amended to remove provision for imposition of daily overrun charges in respect of overruns at Receipt Points.

Amendment 37

General Terms and Conditions should be amended to remove provision for penalty charges to be imposed on Users in respect of daily underruns.

²⁸ East Australian Pipeline Limited, Proposed Access Arrangement for the Moomba to Sydney Pipeline System, 5 May 1999.

Epic Energy, Proposed Access Arrangement for the Moomba to Adelaide Pipeline, 1 April 1999.

Envestra Limited, Proposed Access Arrangement for the Riverland Pipeline, 11 November 1999.

Epic Energy, Proposed Access Arrangement Dampier to Bunbury Natural Gas Pipeline, 15 December 1999.

Amendment 38

The General Terms and Conditions should be amended to remove provision for imposition of hourly overrun charges in respect of overruns at Receipt Points.

Amendment 39

Section 10 and schedule 2 of the General Terms and Conditions should be amended to provide for maximum rates of Quantity Variation Charges to be 350 percent of the service tariff for the relevant service per GJ of the quantity variation.

Amendment 40

Section 1.1(d) of schedule 2 of the General Terms and Conditions should be amended to provide for the gas imbalance tolerance to be eight percent of MDQ.

Amendment 41

The General Terms and Conditions should be amended such that the daily overrun is determined on the basis of an excess of gas delivery over the maximum daily quantity.

Amendment 42

The General Terms and Conditions should be amended such that the daily overrun tolerance is eight percent of MDQ.

Amendment 43

The General Terms and Conditions should be amended such that the maximum hourly quantity is determined on the basis of MDQ rather than the nominated daily delivery, and the hourly overrun tolerance is eight percent of the maximum hourly quantity.

Amendment 44

The General Terms and Conditions should be amended to provide for revenue from overrun charges and imbalance charges to be rebatable revenue as if overruns and imbalances were rebatable services within the meaning of the Code.

5.6 CHARGES FOR UNACCOUNTED FOR GAS AND SYSTEM USE GAS

5.6.1 Access Arrangement Proposal

Section 15 of the General Terms and Conditions provides for CMS to charge Users for System Use Gas as an additional charge to transport tariffs. Section 15.3 of the General Terms and Conditions provides for the System Use Gas Charge to be determined on the basis of gas prices reasonably nominated by CMS, which may vary from time to time.

5.6.2 Draft Decision

In considering the reasonableness of CMS's proposal to charge Users for System Use Gas, the Regulator examined relevant practices in other gas transmission pipelines. The proposal by CMS to purchase System Use Gas and pass the cost on to users as a System Use Gas Charge is consistent with common industry practice and is therefore considered reasonable. Notwithstanding this, the Regulator considers that a cost reference or benchmark for System Use Gas Charges should be provided rather than having these charges determined fully at the discretion of CMS.

The Access Arrangement was considered to not meet the requirements of the Code in respect of the proposed System Use Gas Charges. The required amendment to the Access Arrangement was as follows.

Draft Decision Amendment 41

Section 15 of the General Terms and Conditions should be amended to establish a reasonable benchmark for determining costs passed on to Users as a System Use Gas Charge.

5.6.3 Responses to Submissions on the Draft Decision

- Western Power

Western Power believes that there should, at least, be a maximum level provided for recovery of unaccounted gas that may be charged to users. For so long as CMS may recover these costs from users, there seems to be an opportunity for inadequate maintenance, etc, particularly in the light of *Off*GAR setting acceptable operating and Capital Expenditure costs to be included in the Reference Tariff calculation.

The Regulator has considered the submission from Western Power and is of the view that for a high-pressure transmission pipeline, unlike a distribution system, there are unlikely to be significant quantities of unaccounted for gas occurring without associated operational problems for the pipeline that will require the loss to be remedied. Consequently, the Regulator will not require the Access Arrangement to be amended to include a maximum on charges for system use gas and unaccounted for gas.

5.6.4 Required Amendments to the Access Arrangement

Amendment 45

Section 15 of the General Terms and Conditions should be amended to establish a reasonable benchmark for determining costs passed on to Users as a System Use Gas Charge.

6. OTHER ISSUES RAISED IN PUBLIC SUBMISSIONS

6.1 SAFETY

The following submissions relating to safety in operation of the pipeline were received on the Draft Decision.

- Combustion Air

Section 9 of Part B “Supporting Information” for the decision deals, in part, with this company’s submission dated June 9, 1999. We note that OffGAR sought independent expert advice on the levels of capital and operating expenditure and investment and activities necessary to meet safety standards, and on the basis of this advice, is satisfied that the elements of the decision adequately account for safety matters. These criteria must be a matter for public record. We submit that OffGAR’s assurance falls short of the Code’s requirement for a tariff design to ensure the safe and reliable operation of the pipeline.

With respect, the language of the Code at section 8.1(c) would preclude any self-certification, deemed to comply on declaration of the first party; or an adoption of an opinion of any second party. Pipeline safety and a gas suppliers’ safety obligations can only be ensured by demonstration of compliance with the legislation and appropriate safety standards; detailing obligations in the “Service” and funding safety in the “Tariff”. Again we refer to the decisions of the Victorian Office of the Regulator General (ORG) and the transparency of the independent experts reports, the systems the final decision put in place for reliability targets, pipeline asset management policies and the need for ongoing auditing by ORG of key performance indicators to ensure gas safety. These elements are lacking in OffGAR’s consideration of the Access Arrangement and Access Arrangement Information, and in the Draft Decision.

Gas safety in the context of industrial consumers is a prime legislative obligation upon gas suppliers; such a core service must be apparent in any Access Arrangement or Access Arrangement Information in Western Australia; in respect to gas supplied from the Parmelia pipeline we continue to note:

- Gas continues to be supplied by CMS from the Parmelia pipeline to industrial installations which do not meet the requirements.
- The continued lack of available documentation from the applicant such as “Approval Requirements for Type B Appliances” which assist industry to comply with a gas suppliers safety obligations under Section 13 of the Gas Standards Act, 1972 as amended (the Act).
- A lack of gas supplier Type B (industrial) appliance approval labels as detailed in Australian Standard AS 3814 - 1998 (AG 501) “Procedures for the Approval of Industrial and Commercial Appliances”, Appendix B-1.
- A general lack of knowledge amongst CMS gas users of the requirements of a consumers gas installation and the role played by the gas supplier in Western Australia.
- Concerns from some of these consumers as to risks associated with the safe installation, certification, approval and operation of industrial appliances.

The cost of maintaining gas safety is of interest and concern to industry and Government. Certainly our company as a significant manufacturer of industrial gas appliances supports the application of the existing system including mandatory inspections and in situ certification and approvals sponsored by gas supplier obligations under the Act.

Regulatory oversight by Government must enforce the mandatory safety obligations of gas suppliers stipulated in legislation, such obligations must also be detailed in the “Service” (Code section 3) and funded by the “Tariff” (Code section 8) in any decisions on Access Arrangements. Prudence and legislative compliance cannot be replaced by opaque “commercial-in-confidence” independent reports, Ministerial exemptions from safety requirements or adoption of a “duty of care - deemed to comply by self declaration” substituted basis for gas safety.

- Combustion Air

We take this opportunity to augment concerns raised in our letter dated November 5, 1999 (Draft Decision - Submission 1) with information published since that date.

Our concerns regarding the decision focused on Section 9 of Part B “Supporting Information” for the decision. We note that OffGAR sought independent expert advice on the levels of capital and operating expenditure and investment and activities necessary to meet safety standards, and on the basis of this advice, is satisfied that the elements of the decision adequately account for safety matters. Our contention is that these criteria must be a matter for public record. We submit that OffGAR’s assurance falls short of the Code’s requirement for a tariff design to ensure the safe and reliable operation of the pipeline.

We note the recent tabling in Parliament of the 45th Report of the Joint Standing Committee on Delegated Legislation, the report dated November 9, 1999 into the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations (WA) 1999 recommends that the Minister for Energy should take steps to amend the Act and Regulations to better serve the interests of gas safety. It appears that the Joint House Committee holds similar views to this company in regard to the need for transparency and public scrutiny of gas supplier safety inspection obligations. Quoting from Section 5 “The Committee’s Concerns” ...

“5.37 The Committee is of the view that in order to support the safety regime set up by the Regulations, consideration should be given to amending the Act to provide for the publication in the Government Gazette of the approved inspection plan and policy statement of all entities granted a section 13 (2) exemption. Publication will result in the documents being exposed to public scrutiny and independent assessment, ensure that there is transparency of the Minister’s action in granting an exemption and improve public confidence in the safety practices of gas suppliers.”

We contend that the Code at section 8.1(c) would preclude any self-certification, deemed to comply on declaration of the first party; or an adoption of an opinion of any second party. Pipeline safety and a gas suppliers’ safety obligations to consumers can only be ensured by demonstration of compliance with the legislation and appropriate safety standards; detailing obligations in the “Service” and funding safety in the “Tariff” under the Code. Transparency in the final decision and public confidence in the safety practices of the applicant would be ensured by amending the AA to include:

- Publication of the Parmelia Pipeline safety systems criteria in the AAI.
- Accounting for and quarantining the funding commitment to the pipeline safety management system, the safety case and specific consumer inspection obligations in the final decision of the AA.
- Implementing a system similar to the Victorian Office of the Regulator General (ORG), in the final decision, to put in place reliability targets, pipeline asset management policies and a system for the ongoing auditing by ORG of expenditure related to key performance indicators to ensure gas safety.

The cost of maintaining gas safety is of interest and concern to the public, industry and Government. We note the recent trend toward the use of safety management systems and safety cases to demonstrate the capacity of a pipeline operator/gas supplier to manage risk. As a prudent Service Provider, acting efficiently in accordance with accepted and good industry practice, the Parmelia Pipeline AA should demonstrate that the commitment to safety has been properly discharged and recovered in the Reference Tariff as provided by Section 8.37 of the Code.

Gas safety as it relates to the construction and operation of transmission pipelines is regulated under the licensing provisions of the *Petroleum Pipelines Act 1969*. Gas safety as it relates to consumers’ installations is regulated under the *Gas Standards Act 1972*, as referred to by Combustion Air Pty Ltd in its submission. Both Acts have primacy over the *Gas Pipelines Access (WA) Act 1998* in regard to safety matters.

In view of regulation of gas safety matters under the *Petroleum Pipelines Act 1969* and *Gas Standards Act 1972* (and not the *Gas Pipelines Access (WA) Act 1998*) the Regulator cannot specifically require a pipeline operator to make commitments under the Access Arrangement for compliance with these two Acts. Nor does the Regulator consider that there is any need to do so.

Section 8.1(c) of the Code states that a Reference Tariff and Reference Tariff Policy should be designed with a view to ensuring the safe and reliable operation of the pipeline. The Regulator has interpreted this section of the Code as requiring that the Reference Tariffs make adequate provision for Capital Expenditure, Non-Capital Costs and Incentive Mechanisms that are consistent with management of the distribution systems in a manner that meets appropriate safety standards. In assessing the Reference Tariffs proposed by CMS for the Parmelia Pipeline, the Regulator sought independent technical advice on levels of Capital Expenditure and Non-Capital Costs that could reasonably be regarded as necessary to meet safety standards. On the basis of the advice obtained, the Regulator is satisfied that the elements of this Final Decision in respect of Reference Tariffs adequately account for safety matters.

6.2 RING FENCING

The following submission relating to ring fencing was received on the Draft Decision.

- AlintaGas Trading

AlintaGas appreciates that ring fencing, whilst part of the National Access Code, is not required to be addressed in the Access Arrangement.

AlintaGas, however, notes that Section 4.1 of the National Third Party Access Code for Natural Gas Pipeline Systems (the “Code”) requires CMS to comply with various minimum ring fencing obligations. Section 4.3 of the Code also permits the Regulator to impose additional ring fencing obligations on CMS.

Ring fencing of CMS’s activities is an important issue for AlintaGas Trading. AlintaGas Trading considers that it would be appropriate for CMS’s ring fencing obligations to be considered as part of the Access Arrangement. Ring fencing obligations were incorporated under Division 2.2 of the *Gas Transmission Regulations 1994* and are included as Part 2 of the *Dampier to Bunbury Pipeline Regulations 1998*.

AlintaGas Trading is of the opinion that the Regulator should ensure a complete separation between CMS’s gas transportation and marketing activities by requiring CMS to comply with additional ring fencing obligations. Without a complete separation of activities, participants in the Western Australian gas industry will not be competing on a level playing field.

CMS is subject to the ring fencing provisions of section 4 of the Code in respect of the Parmelia Pipeline. An application for waiver from certain ring fencing obligations was submitted to the Regulator by CMS on 31 March 2000, although this application was subsequently withdrawn. Nevertheless, the Regulator was obliged to issue a Final Decision, and this decision was not to issue a notice granting a waiver of ring fencing obligations. As part of this decision the Regulator placed an obligation on CMS to comply with the ring fencing obligations by 31 March 2001.

The Regulator may not impose ring fencing requirements on a Service Provider through an Access Arrangement. Ring fencing is not a matter required by section 3 of the Code to be addressed in an Access Arrangement, and the Regulator may not refuse to approve an Access Arrangement for the reason that the Access Arrangement does not address a matter outside of the requirements of section 3.