



Economic Regulation Authority

Final Decision on the Proposed Access Arrangement for the Goldfields Gas Pipeline

Submitted by

GOLDFIELDS GAS TRANSMISSION PTY LTD

ECONOMIC REGULATION AUTHORITY

17 May 2005

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APPENDIX 1

Estimation of the Cost of Capital for the GGP using the Capital Asset Pricing Model

DECISION

1. On 15 December 1999, Goldfields Gas Transmission Pty Ltd (“**GGT**”) submitted a proposed Access Arrangement for the Goldfields Gas Pipeline (“**GGP**”) to the Western Australian Independent Gas Pipelines Access Regulator (“**Regulator**”) for approval under the *National Third Party Access Code for Natural Gas Pipeline Systems* (“**Code**”).
2. On 10 April 2001, the Regulator issued a Draft Decision on the proposed Access Arrangement for the GGP. The Draft Decision of the Regulator was to not approve the proposed Access Arrangement and the Regulator indicated 49 amendments to the proposed Access Arrangement that would have to be made before the proposed Access Arrangement would be approved.
3. On 1 January 2004, the function of approval of the proposed Access Arrangement moved to the Economic Regulation Authority (“**Authority**”). The Authority is the “Relevant Regulator”, under the *Gas Pipelines Access (Western Australia) Law* (“**Law**”), for approval of the proposed Access Arrangement for the GGP.
4. On 29 July 2004, the Authority issued an Amended Draft Decision, prepared in light of the decision of the Full Court of the Supreme Court of Western Australia in proceedings brought in respect of the Regulator’s Draft Decision on the proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline (“**Epic Decision**”).¹
5. On 19 November 2004, GGT submitted to the Authority a revised Access Arrangement, pursuant to section 2.15A of the Code.² Section 2.15A of the Code permits a Service Provider to resubmit the proposed Access Arrangement, revised so as to incorporate or substantially incorporate the amendments specified by the Relevant Regulator in its Draft Decision, or revised to otherwise address the matters the Relevant Regulator identified in its Draft Decision as being the reasons for requiring the amendments specified in its Draft Decision.
6. The effect of section 2.16A of the Code is that the Authority may approve the revised Access Arrangement only if the Authority is satisfied that the revised Access Arrangement:
 - incorporates or substantially incorporates the amendments specified by the Authority in its Amended Draft Decision; or
 - otherwise addresses to the Authority’s satisfaction the matters the Authority identified in its Amended Draft Decision as being the reasons for requiring the amendments specified in the Amended Draft Decision.
7. The Authority is not satisfied that the revised Access Arrangement meets the requirements of section 2.16A of the Code and has thus determined not to approve it.

¹ *Re Dr Ken Michael AM; Ex Parte Epic Energy (WA) Nominees Pty Ltd & Anor* (2002) 25 WAR 511.

² Goldfields Gas Transmission, 17 November 2004, Goldfields Gas Pipeline Revised Access Arrangement.

8. Under section 2.16(b)(ii) of the Code the Authority is required, when issuing a Final Decision that proposes to not approve a revised Access Arrangement submitted by a Service Provider subsequent to a Draft Decision, to state amendments that would have to be made to the revised Access Arrangement in order for the Authority to approve it. For purposes of clarity, the required amendments are stated in the reasons for this Final Decision at the point at which the relevant element of the Access Arrangement is addressed. A consolidated list of required amendments is provided at the end of the statement of reasons.
9. GGT's revised Access Arrangement also contained some revisions that were not responsive to the Amended Draft Decision. The Code does not allow a Service Provider to amend its proposed Access Arrangement once the assessment process has commenced, except as required by the Draft Decision (in this case, the Amended Draft Decision) or to address the reasons for amendments required by the Draft Decision. Accordingly, the Authority has considered the additional non-responsive revisions made by GGT in the Access Arrangement as having the status of late submissions under section 2.15 of the Code.
10. To provide interested parties with an opportunity to respond to any new material contained in the additional revisions made by GGT, the Authority published a public version of the revised Access Arrangement on 3 December 2004 (including the additional non-responsive revisions) and an Issues Paper and invited submissions on the new material.
11. In light of this public consultation, and given that the revised Access Arrangement has not been approved for reasons of non compliance with the amendments required by the Amended Draft Decision, the Authority considered whether the proposed non-responsive revisions contained in the revised Access Arrangement complied with the Code. As set out in these reasons, the Authority considers that some of the additional revisions comply with the relevant provisions of the Code, and the Authority has accepted the revisions. However, the Authority considers that a number of the additional revisions do not comply with the Code and, accordingly, does not accept them and pursuant to section 2.16(b)(ii) of the Code requires the revised Access Arrangement to be amended to remove the revisions.
12. The Authority is also required by section 2.16 of the Code to state the date by which a further revised Access Arrangement must be submitted to the Authority. In accordance with section 2.16, GGT must submit a revised Access Arrangement to the Authority by 4 pm on Tuesday 14 June 2005.
13. In reaching its Final Decision, the Authority has considered the revised Access Arrangement under the principles set out in the Code.
14. The Authority has considered and weighed the factors in section 2.24 of the Code as fundamental elements in making the overall decision whether to approve the revised Access Arrangement, recognising that at some points the Code expresses the section 2.24 factors in specific provisions dealing with particular aspects of an Access Arrangement. The Authority has also considered submissions made to it in respect of the Amended Draft Decision and submissions made on the revised Access Arrangement.

REASONS

Introduction

15. The GGP was officially opened on 4 October 1996. It comprises a gas transmission system consisting of a main pipeline which begins at Yarraloola in juxtaposition to the Dampier to Bunbury Natural Gas Pipeline (“**DBNGP**”) (but not connected to the DBNGP) and transports gas through 1,378 km of pipeline to Kalgoorlie. The construction of the GGP followed a call for “expressions of interest” by the Western Australian Government in March 1993. In mid 1993 the Government awarded the right to build the pipeline to a joint venture of Wesminco Oil Pty Ltd (Western Mining Corporation Holdings Ltd), Normandy Pipelines Pty Ltd (Normandy Poseidon Ltd) and BHP Minerals Pty Ltd.
16. The Goldfields Gas Pipeline Agreement (“**State Agreement**”) was signed between the Government and these joint venture participants in March 1994. The State Agreement includes, *inter alia*, requirements and arrangements for access to the GGP by parties other than the joint venturers.
17. The Code came into effect in Western Australia on 15 January 1999 when the *Gas Pipelines Access (Western Australia) Act 1998* was assented to. However, section 97 of this Act provided for the continuation of existing access arrangements for the GGP under the State Agreement by deeming them to be an approved Access Arrangement under the Code until 1 January 2000.
18. On 15 December 1999, GGT submitted the proposed Access Arrangement for the GGP to the Regulator for approval under the Code. The Regulator issued a Draft Decision on the proposed Access Arrangement on 10 April 2001. The Draft Decision was to not approve the proposed Access Arrangement.
19. In August 2002, the Full Court of the Supreme Court of Western Australia delivered the Epic Decision. The Epic Decision dealt with matters of construction of the Code, particularly in respect of determination of Reference Tariffs.
20. In light of the Epic Decision, on 6 November 2002 the Regulator issued a notice advising of his decision to amend the Draft Decision on the proposed Access Arrangement for the Goldfields Gas Pipeline rather than proceeding to a Final Decision.³
21. In this notice, the Regulator outlined the procedure that would be followed in amending the Draft Decision, addressing a contention of GGT that the State Agreement has the effect of limiting the application of the Code to the GGP in circumstances where application of the Code materially adversely affects the legitimate business interests of the owners of the GGP.
22. The first stage of the procedure outlined in the notice involved the Regulator applying the Code to the proposed Access Arrangement without consideration of whether

³ Notice – Proposed Access Arrangement for the Goldfields Gas Pipeline, Office of Gas Access Regulation, 6 November 2002.

clause 21(3) of the State Agreement affected the application of the Code to the GGP and issuing a “Part 1” of an amended Draft Decision. Following the issue of this Part 1 of an amended Draft Decision, the Regulator proposed to invite the current owners of the GGP to demonstrate, by way of a written submission, whether the application of the Code would materially adversely affect their legitimate business interests within the meaning of clause 21(3) of the State Agreement. The Regulator proposed to then issue a “Part 2” of the amended Draft Decision setting out his assessment of the extent to which the Code applied in light of the submission by the owners of the GGP.

23. On 10 June 2003, WMC Resources Ltd obtained an Order Nisi requiring the Regulator and the State of Western Australia to show cause before the Supreme Court of Western Australia why a Writ of Prohibition should not be issued against the Regulator preventing him from considering or determining whether, under clause 21(3) of the State Agreement, the Code shall not have effect in relation to the GGP.
24. The matter was heard by the Supreme Court on 6 and 7 October 2003 and the Court issued its Reasons for Decision on 2 December 2003 (“**WMC Decision**”).⁴
25. The Court held that while the State Agreement has been ratified and takes effect despite any other Act or law, the terms remain contractual terms binding on the parties to the contract but not on others. In relation to clauses 21(2) and (3), the Court held that the provision purports:

“directly to affect and determine the extent to which future legislation of the State will operate in its application to the pipeline. In each case that is, and could only be, a matter determined by future legislative action of the Parliament”.

... it is clear from the nature of the subject matter of cl 21(2) and (3) that the parties cannot have intended these two subclauses to have binding contractual force and effect. Further, whatever the intention of the parties, cl 21(2) and (3) cannot be enforced by the Court as binding contractual provisions. They can only be seen as expressions of comfort as between the parties to the contract as to what they each then expected or hoped would be the course of future events.⁵

26. The Court also indicated that:

Whatever the legal force and effect of clause 21(3) as between the parties to the State Agreement, [it was] not able to read its provisions as conferring, or purporting to confer, any role or function or jurisdiction on the Regulator.⁶

27. Accordingly, on 18 March 2004 the Court made a declaration in the following terms:

On the proper construction of the State Agreement ratified by the *Goldfields Gas Pipeline Agreement Act 1994* and on the proper construction of that Act, section 3 of the *Government Agreements Act 1979* and the *Gas Pipelines Access (Western Australia) Act 1998*, the Regulator is required to perform his functions under the Code without regard to clause 21(3) of the State Agreement.

28. As stated above, the function of approval of the proposed Access Arrangement was transferred to the Authority on 1 January 2004. Pursuant to the *Economic Regulation*

⁴ *Re Michael; Ex parte WMC Resources Ltd* (2003) 27 WAR 574.

⁵ WMC Decision, *ibid*, at p 586.

⁶ WMC Decision, *ibid*, at p 589.

Authority Act 2003, any decision made, or to be made, by the former Regulator is treated as having been made, or to be made, by the Authority.

29. On 6 April 2004 and subsequent to the WMC Decision of the Supreme Court, the Authority issued a notice amending the process it intended to follow in progressing assessment of the proposed Access Arrangement. The amended process involves three stages.

Stage One

- Application of the Code without consideration of whether subclause 21(3) of the State Agreement affects the applicability of the Code, but with consideration of the extent to which any other matters arising under the State Agreement are relevant to the Authority's assessment of the Code.
- Invitation by the Authority to interested parties to prepare and provide written submissions that have regard to the reasons in the Epic Decision and any effect on matters identified in the Draft Decision as being the reasons for requiring amendments to the Proposed Access Arrangement.

Stage Two

- Release by the Authority of an Amended Draft Decision and invitation of submissions on the Amended Draft Decision from interested parties within a time to be specified pursuant to section 2.14(b) of the Code.

Stage Three

- Consideration of submissions on the Amended Draft Decision and issue of a Final Decision.

30. With the issue of this Final Decision, the Authority has completed all stages of this process.

Access Arrangement Documents

31. GGT submitted its proposed Access Arrangement on 15 December 1999. Documentation submitted comprised:

- Access Arrangement, including General Terms and Conditions as Appendix 3 and Pipeline Maps as Attachment 1; and
- Access Arrangement Information.

32. The revised Access Arrangement submitted to the Authority on 17 November 2004 comprises:

- the Access Arrangement;
- "Definitions and Interpretation" as Appendix 1;
- the General Terms and Conditions as Appendix 3; and

- an “enquiry form” as Appendix 2.1.
33. Copies of the original and revised Access Arrangement documents are available from the Authority or may be downloaded from the Authority’s web site (www.era.wa.gov.au).

Requirements of the Code

34. Section 2.24 of the Code provides that:
- 2.24 The Relevant Regulator may approve a proposed Access Arrangement only if it is satisfied the proposed Access Arrangement contains the elements and satisfies the principles set out in sections 3.1 to 3.20. The Relevant Regulator must 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. In assessing a proposed Access Arrangement, the Relevant Regulator must take the following into account:
- (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;
 - (g) any other matters that the Relevant Regulator considers are relevant.
35. The “elements” of a proposed Access Arrangement, referred to in section 2.24 of the Code comprise:
- Services Policy (sections 3.1 and 3.2 of the Code);
 - Reference Tariff and Reference Tariff Policy (sections 3.3 to 3.5 of the Code);
 - Terms and Conditions (section 3.6 of the Code);
 - Capacity Management Policy (sections 3.7 and 3.8 of the Code);
 - Trading Policy (sections 3.9 to 3.11 of the Code);
 - Queuing Policy (sections 3.12 to 3.15 of the Code);
 - Extensions/Expansions Policy (section 3.16 of the Code); and
 - Review Date (sections 3.17 to 3.20 of the Code).
36. An Access Arrangement may deal with a number of matters beside those dealt with in sections 3.1 to 3.20, but an Access Arrangement must contain at least the elements dealt with in sections 3.1 to 3.20 and satisfy the principles set out in those sections.

37. In applying the Code to GGT's revised Access Arrangement, the Authority has taken into account the judicial guidance contained in the Epic Decision.
38. The remainder of these reasons examine the elements of the revised Access Arrangement; set out the Authority's considerations in respect of each element in the Amended Draft Decision and required amendments as set out in the Amended Draft Decision; and the Authority's assessment (where applicable) of the revisions made to the proposed Access Arrangement.

Preliminary Issue: Definition of Spare Capacity

39. As a preliminary issue unrelated to specific requirements of section 3.1 to 3.20 of the Code, in its Amended Draft Decision the Authority considered a matter raised by GGT in relation to the operation of an Access Arrangement.
40. In correspondence with the Authority, GGT expressed concern that the operation of the Access Arrangement should not affect existing contractual rights between the owners of the GGP and third parties with respect to the "Initial Committed Capacity"⁷ in the pipeline. Section 2.25 of the Code provides that the Regulator must not approve an Access Arrangement any provision of which would, if applied, deprive any person of a contractual right in existence prior to the date the proposed Access Arrangement was submitted (or required to be submitted). For the avoidance of any doubt, the Authority required in the Amended Draft Decision an amendment to the definition of "Spare Capacity" in the proposed Access Arrangement to the effect that Spare Capacity will only include the Initial Committed Capacity to the extent that it does not deprive any person of an existing contractual right:

The definition of "Spare Capacity" in the proposed Access Arrangement should be amended to provide that Spare Capacity will only include the "Initial Committed Capacity" (as defined under clause 8 of the State Agreement) to the extent that it does not deprive any person of an existing contractual right. (Amendment 1)

41. GGT has revised the proposed Access Arrangement to address this required amendment by altering the definition of Spare Capacity in Appendix 1 of the proposed Access Arrangement as follows.⁸

~~Spare Capacity means:~~

~~the difference between the Capacity and the Firm Service Reserved Capacity; plus the difference between the Firm Service Reserved Capacity and the Firm Service Reserved Capacity being used.~~

Spare Capacity means at any time the aggregate of:

(a) any difference between:

(1) the Capacity; and

⁷ Initial Committed Capacity is defined under clause 8 of the State Agreement and includes capacity reserved by each of the original joint venturers in the GGP and capacity reserved by foundation third-party Users of the GGP under clause 8(2)(b) of the State Agreement.

⁸ Revisions to the proposed Access Arrangement are displayed in this Final Decision with deletions indicated by a strike-through of relevant text and insertions shown in blue type and underlined.

- (2) the total of:
 - (A) the Firm Service Reserved Capacity;
 - (B) the Negotiated Service Reserved Capacity; and
 - (C) the Initial Committed Capacity; plus
- (b) any difference between:
 - (1) the Firm Service Reserved Capacity; and
 - (2) the Firm Service Reserved Capacity not then being used; plus
- (c) any difference between:
 - (1) the Negotiated Service Reserved Capacity; and
 - (2) the Negotiated Service Reserved Capacity not then being used; plus
- (d) any difference between:
 - (1) the Initial Committed Capacity; and
 - (2) the Initial Committed Capacity not then being utilised

to the extent that this does not deprive any person of a Pre-existing Contractual Right.

42. GGT has made revisions to the definition of Spare Capacity to limit the definition of Spare Capacity to not include any capacity that, if regarded as Spare Capacity, would deprive a person of a contractual right. The Authority is satisfied that this revision incorporates Amendment 1 of the Amended Draft Decision. GGT has also revised the definition of Spare Capacity to increase the scope of unused pipeline capacity that is regarded as Spare Capacity. While the latter is not required by Amendment 1, the Authority considers the extension in the scope of the definition of Spare Capacity to be consistent with the interests of Users and hence does not oppose the revision.

Services Policy

43. 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.
- 3.2 (a) The Access Arrangement must include a description of one or more Services that the Service Provider will make available to Users or Prospective Users, including:
- (i) one or more Services that are likely to be sought by a significant part of the market; and
 - (ii) any Service or Services which in the Relevant Regulator's opinion should be included in the Services Policy.
- (b) To the extent practicable and reasonable, a User or Prospective User must be able to obtain a Service which 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.
44. The Services Policy of an Access Arrangement includes descriptions of a set of Services that the Service Provider will make available.

45. A Services Policy is provided in clause 4 of the proposed Access Arrangement. As originally proposed, the Services Policy committed GGT to making available a Reference Service to a Prospective User and negotiating in good faith, subject to operational availability, for the provision of Non-Reference Services to a Prospective User.
46. A Reference Service is a Service that is specified in an Access Arrangement and for which a Reference Tariff is specified in that Access Arrangement under section 3.3 of the Code:
 - 3.3 An Access Arrangement must include a Reference Tariff for:
 - (a) at least one Service that is likely to be sought by a significant part of the market; and
 - (b) each Service that is likely to be sought by a significant part of the market and for which the Relevant Regulator considers a Reference Tariff should be included.
47. Only those Services likely to be sought by a significant part of the market and for which the Authority considers there should be a price need to have a Reference Tariff specified. For other Services, prices would be determined by negotiation between the Service Provider and the Prospective User, and section 6 of the Code provides a process of arbitration should negotiations be unsuccessful.
48. The Services Policy under the proposed Access Arrangement provides a description of a single Reference Service, described as a “Firm Service”.
49. The Services Policy does not include a description of any Service other than the single proposed Reference Service. However, the Services Policy indicates that GGT also offers “Negotiated Services” for Users who desire a Service other than the Reference Service. It is indicated that these Services are to be developed through a negotiation process to meet specific needs. Clause 4.2(a) of the proposed Access Arrangement provided an undertaking by GGT to negotiate such Services in good faith. Further, clause 4.2(b) of the proposed Access Arrangement stated that no provision of the Access Arrangement necessarily limits or circumscribes the terms or conditions which may be negotiated for the provision of one or more Negotiated Services.
50. In assessing the proposed Services Policy, the Authority is required to consider the Services that a significant part of the market is likely to seek. One or more such Services must be included in the Access Arrangement and must be described. If the Authority forms the opinion that other Services should also be included then they must also be included and described. Of these Services only one that is sought by a significant part of the market need be specified as a Reference Service, although the Authority must consider whether any of the other Services that are likely to be sought by a significant part of the market should also be included as a Reference Service.

Characteristics of the Proposed Reference Service

51. The Services Policy as originally proposed indicated that GGT will make the Reference Service available to customers for the receipt of gas at a single Inlet Point, transmission through the Pipeline and delivery to the agreed Outlet Point or Outlet Points. Gas quantities able to be received and delivered under a Service Agreement for a firm service are defined under clause 4 of the General Terms and Conditions as

upper limits in terms of Maximum Daily Quantity (“**MDQ**”) and Maximum Hourly Quantity (“**MHQ**”).

52. GGT included this Service in the Services Policy for the stated reason that the only Service sought by current Users has been a firm Service and GGT believes that such a requirement is unlikely to change in the future.
53. In the Amended Draft Decision, the Authority took the view that as a forward-haul, non-interruptible haulage Service provided on the basis of contracted capacity, the proposed Reference Service is in the nature of a Service typically provided by a gas transmission pipeline configured to transport gas from an “upstream” gas source to “downstream” delivery points, and is of the same nature as gas transmission services provided by most other transmission pipelines in Australia. The Authority therefore considered that this Service is likely to be sought by a significant part of the market and therefore complies with the requirements of the Code.
54. Notwithstanding that the Authority considered the proposed Reference Service to comply with the requirements of the Code, the Authority examined the characteristics of the proposed Reference Service, and in particular the requirement under the proposed Access Arrangement that the Reference Service being offered requires gas to be delivered into the pipeline via the existing Inlet Point and does not allow gas to be delivered into the pipeline via any additional Inlet Points which may be constructed during the Access Arrangement Period. A User wishing to access any additional Inlet Point that is added to the pipeline at a location anywhere along the pipeline, whether from a new gas source or from an interconnecting pipeline, would not have a right to do so as part of the Reference Service.
55. The Authority took the view that not allowing for additional Inlet Points obstructs the potential for enhanced competition in upstream gas markets and the benefits to Users that may flow from such competition. The Authority also took the view that it would not be onerous for GGT to accommodate in a Reference Service a facility for gas receipt into the GGP at any additional Inlet Points that are added to the pipeline. This would not place any obligation upon GGT to provide additional Inlet Points, to offer an interconnection Service with the DBNGP or to finance the construction of any additional Inlet Points, but would merely prevent GGT from refusing Users access to any additional Inlet Points in the event that they are created.
56. Taking these matters into account, the Authority took the view in the Amended Draft Decision that the Services Policy should provide for an additional Reference Service in the nature of that proposed by GGT, but without restriction in respect of Inlet Points. The following Amendment of the proposed Access Arrangement was required:

The proposed Access Arrangement should be amended to make provision for an additional Reference Service in the nature of that proposed by GGT but which is capable of accommodating alternative and multiple Inlet Points in a single Service Agreement in the event that additional Inlet Points are established on the Pipeline. (Amendment 2)
57. Concerns were also raised in submissions about whether there is a need to specify the terms and conditions that would apply in respect of any additional Inlet Points. As none of the terms and conditions set out for the proposed Reference Service are necessarily specific to the existing Inlet Point, the Authority did not consider there to

be a practical requirement to specify special terms and conditions for different Inlet Points within the terms and conditions for a gas transmission Service such as proposed by GGT as the Reference Service. As such, the Authority saw no reason why the terms and conditions for the additional Service should differ from the terms and conditions for the Reference Service proposed by GGT save in respect of removing the restriction on the Inlet Point. Moreover, given that there would be no additional costs incurred by reason of a different Inlet Point and which would need to be recovered through the respective Reference Tariff, the Authority saw no reason why the Reference Tariff for the additional Service should differ from that determined for the Reference Service proposed by GGT.

58. GGT's revised Access Arrangement does not incorporate Amendment 2 of the Amended Draft Decision. In a submission to the Authority, GGT raises the following objections to the requirement for amendment of the Services Policy to include an additional Reference Service that is the same as the proposed Reference Service but includes provision for receipt of gas into the GGP at additional Inlet Points.
59. Firstly, GGT claims that there is no demonstrated or forecast demand for such a service (i.e. a demand for receipt of gas into the GGP at an Inlet Point other than the existing Inlet Point). GGT contends that in the absence of current or forecast demand, the Code does not provide for the Authority to require that the Access Arrangement include a Reference Service to meet that demand. As a related point, GGT indicates that the Inlet Point at Yarraloola for the proposed Reference Service will allow for the receipt of gas from the DBNGP in the event that an interconnection is established.
60. Secondly, GGT claims that, without knowing the location of any new Inlet Point and associated source of gas, it would not be possible to establish relevant terms and conditions and a Reference Tariff for the Reference Service required by the Authority.
61. In making its Amended Draft Decision the Authority was concerned with the receipt of gas into the GGP from an interconnection with the DBNGP. GGT addressed the amendment required by the Authority by indicating that an interconnection with the DBNGP at Yarraloola would be regarded as the same Inlet Point as the existing Inlet Point for the purposes of the proposed Reference Service, and has revised clause 6.2 of the General Terms and Conditions to reflect this:

6.2 Inlet Point

- (a) Gas shall be delivered by the User to, and received by GGT into the Pipeline at the Inlet Point.
- (b) Inlet Facilities ~~capable of receiving~~ which receive Gas from the Harriet and East Spar Joint Ventures' pipelines at Yarraloola in the vicinity of the inlet to the Pipeline have been installed. The cost of operation and maintenance of these Inlet Facilities will be borne by GGT.
- (c) The Inlet Facilities ~~shall at all times~~ comply with the technical requirements for Inlet Facilities set out in the First Schedule.
- (d) Subject to compliance with GGT's reasonable technical and operational requirements, if new inlet facilities to the GGP are installed at the existing interconnection point between the DBNGP and the GGP at Yarraloola, those facilities may be treated as an Inlet Point under these General Terms and Conditions.

62. In indicating that an interconnection with the DBNGP would be possible at the existing Inlet Point (and hence under the proposed Reference Service), the Authority is satisfied that GGT has addressed, in large part, the reasons for Amendment 2 of the Amended Draft Decision.
63. The Authority is concerned that, despite the submission from GGT and revisions made to the terms and conditions for the Reference Service, the Services Policy makes no explicit provision for receipt of gas into the GGP at locations other than the existing Inlet Point at Yarraloola. The Authority accepts the submission from GGT that there is currently no firm evidence of demand for a Service with receipt of gas into the pipeline at another location, and hence accepts that there is limited justification at the current time for this to be possible under a Reference Service. However, the Authority notes that there is a possibility of future demand for other Inlet Points, such as an interconnection with the DBNGP via the Mid West Pipeline.
64. The Authority accepts that it may be possible to obtain a Service with an alternative Inlet Point as a Negotiated Service under the Services Policy as proposed by GGT. However, this is not certain. The Authority considers that a more explicit commitment to provide such a Service would be in the public interest and in the interests of Users and Prospective Users in promoting competition in gas markets. The Authority therefore takes the view that while such a Service cannot be justified as a Reference Service, it should be explicitly included in the Services Policy as a Non-Reference Service.

Final Decision Amendment 1

The Services Policy of the revised Access Arrangement should be amended to make explicit provision for a Non Reference Service for gas transmission with gas received into the GGP at Inlet Points other than at Yarraloola.

Inclusion of Additional Services as Reference Services

65. In the Amended Draft Decision, the Authority considered the matter of whether additional services – in particular a back-haul Service, a parking Service, an authorised imbalance Service and/or an interruptible Service – should be included in the Access Arrangement as a Reference Service.
66. In regard to a backhaul Service, the Authority took the view that it is currently unlikely that such a Service would be sought by a significant part of the market given that the Carnarvon Basin is the sole source of gas supply to the GGP.
67. In regard to parking and authorised imbalance Services, the Authority noted that these Services are not generally offered as Reference Services by other pipeline Service Providers but rather are in the nature of ancillary Services associated with a Reference Service. Further, the Supplementary Quantity Option appears to provide a facility that would allow Users to address imbalances (by contracting for additional gas receipts and/or deliveries on a short term basis), thus providing a similar facility to an authorised imbalance Service.
68. In regard to an interruptible Service, the Authority considered the submission of a party that, depending upon the terms and conditions upon which an interruptible

Service was offered, it would consider using such a Service. The Authority accepted that it may be desirable for a Service Provider to offer an interruptible Service as such a Service provides a mechanism for efficient use of pipeline capacity that is not available with sufficient reliability to be used to provide a firm (i.e. non-interruptible) Service. However, the Authority recognised that GGT has proposed an alternative mechanism for the utilisation of this capacity – the Supplementary Quantity Option. The Supplementary Quantity Option appears to be in the nature of a “spot Service” or “authorised overrun service” (i.e. selling of capacity on a daily basis) that would utilise capacity that may otherwise be offered for an interruptible Service, and which could be used to meet the demand for gas transmission that arises on an irregular basis. The Authority did not consider there to be sufficient evidence that, given the availability of the Supplementary Quantity Option, an interruptible Service would be likely to be sought by a significant part of the market.

69. The Authority therefore took the view in the Amended Draft Decision that no party has provided a sufficient basis for it to conclude that there is likely to be a demand by a significant part of the market for additional Reference Services, including Services in the nature of a parking Service, a back-haul Service, an authorised imbalance Service or an interruptible Service. No submissions on this matter have been made subsequent to the Amended Draft Decision and the Authority maintains the view that there is no reason to require that the proposed Access Arrangement be amended to include additional Reference or Non-Reference Services.

Other Revisions to the Services Policy

70. GGT has made revisions to the Services Policy in its revised Access Arrangement other in response to required amendments. These revisions are indicated as follows.

4 SERVICES POLICY

4.1 Reference Service - Firm Service

- (a) ~~Since the commencement of the transportation services through the Pipeline, the only service that has been sought by the current users has been a firm Service. It is unlikely that this requirement will change in the future. On this basis t~~The Reference Service offered by GGT is a Firm Service.
- (b) Subject to there being sufficient Spare Capacity in the Pipeline GGT will make available to Prospective Users the Reference Service for the receipt of Gas at the Inlet Point, the transmission of Gas to, and the delivery of Gas at agreed Outlet Point(s) as more particularly described in clause 4 of the General Terms and Conditions.
- (c) ~~Whilst every reasonable endeavour will be made by GGT to provide a Firm Service it cannot guarantee supply.~~

4.2 Negotiated Services

- (a) Should any User or Prospective User have requirements which cannot be satisfied through a Reference Service ~~s wish to request other transportation services in the future which are different to the Reference Service, GGT is prepared to~~will consider the development of Negotiated Services to meet that person's specific requirements. Negotiated Services will be provided on the terms and conditions negotiated between GGT and the User ~~at tariffs and under terms and conditions negotiated in good faith.~~
- (b) No provision of this Access Arrangement necessarily limits or circumscribes the terms and conditions which may be negotiated for the provision of one or more of ~~these~~ Negotiated sServices.

71. GGT has submitted that the revisions made to the Services Policy have been made to improve clarity of the provisions.
72. The Authority is of the view that the revisions are not materially adverse to the interests of Users and as such the Authority does not oppose the revisions.

Reference Tariff and Reference Tariff Policy

Requirements of the Code

73. 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 Relevant Regulator considers a Reference Tariff should be included.
74. Section 3.4 of the Code cross references section 8 of the Code for the principles with which a Reference Tariff must comply:
- Unless a Reference Tariff has been determined through a competitive tender process as outlined in sections 3.21 to 3.36, an Access Arrangement and any Reference Tariff included in an Access Arrangement must, in the Relevant Regulator's opinion, comply with the Reference Tariff Principles described in section 8.
75. Section 3.5 of the Code requires that, in addition to a Reference Tariff, an Access Arrangement must include a Reference Tariff Policy:
- An Access Arrangement must also include a policy describing the principles that are to be used to determine a Reference Tariff (a **Reference Tariff Policy**). A Reference Tariff Policy must, in the Relevant Regulator's opinion, comply with the Reference Tariff Principles described in section 8.
76. As referred to in sections 3.4 and 3.5 of the Code, section 8 of the Code sets out the principles with which Reference Tariffs and a Reference Tariff Policy included in an Access Arrangement must comply.
77. Section 8.1 of the Code provides that a Reference Tariff and Reference Tariff Policy should be designed with a view to achieving the following objectives:
- (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.
78. Section 8.1 of the Code also provides guidance as to the reconciliation of these objectives:

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

79. In respect of the reconciliation of objectives of section 8.1 of the Code, “the factors in s 2.24(a) to (g) should guide the Regulator in determining, if necessary, the manner in which the objectives in s 8.1(a) to (f) can best be reconciled or which of them should prevail”.⁹
80. In addition to the objectives set out in section 8.1 of the Code, section 8.2 of the Code requires that the Authority be satisfied about a number of factors in determining whether to approve a Reference Tariff and Reference Tariff Policy:
 - (a) the revenue to be generated from the sales (or forecast sales) of all Services over the Access Arrangement Period (the Total Revenue) should be established consistently with the principles and according to one of the methodologies contained in this section 8;
 - (b) to the extent that the Covered Pipeline is used to provide a number of Services, that portion of Total Revenue that a Reference Tariff is designed to recover (which may be based on forecasts) is calculated consistently with the principles contained in this section 8;
 - (c) a Reference Tariff (which may be based upon forecasts) is designed so that the portion of Total Revenue to be recovered from a Reference Service (referred to in paragraph (b)) is recovered from the Users of that Reference Service consistently with the principles contained in section 8;
 - (d) Incentive Mechanisms are incorporated into the Reference Tariff Policy wherever the Relevant Regulator considers appropriate and such Incentive Mechanisms are consistent with the principles contained in this section 8; and
 - (e) any forecasts required in setting the Reference Tariff represent best estimates arrived at on a reasonable basis.

Proposed Access Arrangement and Amended Draft Decision

81. In the proposed Access Arrangement GGT provided a Reference Tariff Policy as clause 5, reproduced as follows.

5 REFERENCE SERVICE TARIFF POLICY

5.1 Transportation Tariff for Reference Service

GGT will make available the Reference Service at the Transportation Tariff as set out in clause 9 of the General Terms and Conditions, as varied in accordance with the provisions of this clause 5.

5.2 Reference Service Tariff Policy

The Transportation Tariff has been determined having regard to:

- (a) the Reference Tariff Principles described in section 8 of the Code where the rate of return used in setting the Transportation Tariff is commensurate with the business risks taken in development of the Pipeline in accordance with the GGP Act;
- (b) recovery of actual and forecast Pipeline costs and efficient capital and operating costs and a commercial rate of return; and

⁹ Epic Decision, *ibid*, Declaratory Order 3.

- (c) a Net Present Value tariff determination methodology.

5.3 Variation of Transportation Tariff

Except as expressly provided in the Service Agreement, the Transportation Tariff will be adjusted in accordance with clause 9 of the General Terms and Conditions.

82. The Reference Tariff Policy (at clause 5.3) cross references clause 9 of the General Terms and Conditions for the Reference Service. Clause 9 of the General Terms and Conditions defines the component charges of the Reference Tariff for the proposed Firm Service, being the Toll Charge, the Capacity Reservation Charge, the Throughput Charge, the Used Gas Charge and the Supplementary Quantity Option Charge, and makes provision for other charges: the Account Establishment Charge, Connection Charge and Annual Account Management Charge. Clause 9 of the General Terms and Conditions also makes provision for:
- Quantity Variation Charges;
 - quarterly escalation of charges in accordance with changes in the consumer price index;
 - provision for Users to pay to GGT amounts equal to any tax, duty, impost, levy or other charge (excluding income tax) imposed by the government or other regulatory authority from time to time incurred by GGT or the Owners in respect of the Service provided pursuant to the Service Agreement;
 - provision for pass through of the goods and services tax;
 - provision for charges to still apply when the flow of gas is restricted in accordance with clauses 8 (Interruption of Service) and 17 (Force Majeure) of the General Terms and Conditions; and
 - provision for GGT to demand a bond or deposit from a User.
83. The Authority took the view in the Amended Draft Decision that the Reference Tariff Policy proposed by GGT is largely declaratory of provisions and principles of the Code, in particular indicating:
- the Reference Service will be made available at a Reference Tariff set out in the General Terms and Conditions;
 - the Reference Tariff has been determined having regard to the principles of section 8 of the Code and recovery of costs (including a rate of return), and using a net-present-value methodology (consistent with the requirements of sections 8.4, 8.8 – 8.22, 8.30, 8.36 and 8.37 of the Code); and
 - the Reference Tariff is subject to adjustment over the Access Arrangement Period (consistent with sections 8.3 and 8.5A of the Code).
84. While the Authority took the view in the Amended Draft Decision that the Reference Tariff Policy complies with the requirements of the Code, the Authority determined that the application of the Reference Tariff Policy in calculation and specification of the Reference Tariff did not meet the requirements of the Code. The Authority

required amendment of the proposed Access Arrangement as follows, requiring revision of a number of elements of the Reference Tariff calculation.

The Reference Tariff should be revised to be as follows for the year 2000 in an Access Arrangement Period of 1 January 2000 to 31 December 2005:

Contract Duration	Toll (\$/GJ of Contracted MDQ)	Capacity Reservation (\$/GJ of Contracted MDQ/km)	Throughput (\$/GJ km of Throughput/km)
1 – 5 years	0.238058	0.001372	0.000402
6 – 10 years	0.218220	0.001257	0.000368
11 – 15 years	0.208301	0.001200	0.000352
16 – 20 years	0.198382	0.001143	0.000335

and reflecting the following.

- An Initial Capital Base of \$480 million as at 31 December 1999, including a value of working capital of \$1.3 million.
- A nominal pre-tax Rate of Return of 10.81 percent.
- Forecast Non Capital Costs as follows (nominal \$million).

Year ending 31 Dec	2000	2001	2002	2003	2004	2005
Total Non Capital Costs	9.37	10.56	12.14	15.19	12.56	12.88

- A present value of Total Revenue (with a discount rate equal to nominal pre-tax Rate of Return of 10.81 percent) of \$320.67 million in dollar values at 31 December 1999. (Amendment 3)

85. The Authority's determinations under the Amended Draft Decision in respect of the Reference Tariff Policy and particular elements of the derivation of the Reference Tariff are described below. For each element, GGT's proposed revisions to the Access Arrangement and Reference Tariff determination are considered and conclusions drawn as to whether the proposed revisions incorporate or substantially incorporate the Authority's required amendments to the Reference Tariff or otherwise address the reasons for these required amendments. Submissions from GGT and other parties were considered in the Authority's assessment of the proposed revisions to the Reference Tariff, as also described below.
86. The Authority notes at this point that it has determined that the Access Arrangement Period should extend to 31 December 2009. As such, the Reference Tariff, and the components in the calculation of the Reference Tariff, are discussed in this context. The matter of the Access Arrangement Period is addressed later in the Final Decision (paragraph 799 and following).

Reference Tariff Policy

87. While in its Amended Draft Decision the Authority did not require any changes to the Reference Tariff Policy, GGT has substantially revised the policy, as follows.

5 ~~REFERENCE SERVICE TARIFF POLICY~~ [TARIFFS AND REFERENCE TARIFF POLICY](#)

5.1 Transportation Tariff for Reference Service

GGT will make available the Reference Service at the Transportation Tariff as set out in clause 9 of the General Terms and Conditions, as varied in accordance with the provisions of this clause 5.

5.2 Reference Service-Tariff Policy

~~The Transportation Tariff has been determined having regard to:~~

- ~~(a) the Reference Tariff Principles described in section 8 of the Code where the rate of return used in setting the Transportation Tariff is commensurate with the business risks taken in development of the Pipeline in accordance with the GGP Act;~~
- ~~(b) recovery of actual and forecast Pipeline costs and efficient capital and operating costs and a commercial rate of return; and~~
- ~~(c) a Net Present Value tariff determination methodology.~~

(a) The following principles apply to the development of the Reference Tariff under this Access Arrangement:

- (1) the Reference Tariff is derived through a price path approach under which Reference Tariffs are determined for the whole Access Arrangement Period to follow a path forecast to deliver a Total Revenue;
- (2) the Total Revenue is calculated according to the Cost of Service methodology;
- (3) the Total Revenue is designed to permit GGT to recover the efficient costs of the Pipeline over the expected life of the assets used in the provision of Services, including recovery of a rate of return commensurate with conditions in the market for funds for development of the Pipeline and provision of Services; and
- (4) the Initial Capital Base is established in accordance with sections 8.1, 8.10 and 8.11 of the Code.
- (b) The rate of return used in setting the Reference Tariffs is commensurate with the business risks expected to be taken by the owners over the life of the Pipeline investment. The rate of return used also reflects the principles of the GGP Agreement entered into at the time of development of the Pipeline and which underpinned the development of the Pipeline.
- (c) The Initial Capital Base is set to reflect the economic depreciated value of the Pipeline at the time the Code first applied to the establishment of tariffs for the Pipeline. In particular, the Initial Capital Base reflects the capital costs incurred in the development and construction of the pipeline, the rate of return applicable under the GGP Agreement prior to the Code, and amounts reasonably regarded as having been paid by Users of the Pipeline prior to the commencement of the Code. The Initial Capital Base also includes an allowance for linepack provided by the owners and for working capital.
- (d) The Initial Capital Base is set at 1 January 2000, and is then depreciated on a straight line basis from that date over a remaining economic life of 64.5 years
- (e) An amount reflecting the reasonable costs of the ownership of the Pipeline, as well as the day to day management, operation and maintenance of the Pipeline, are included in the non-capital costs for the Pipeline.
- (f) The Reference Tariff for the Reference Service is designed to recover Total Revenue from the Users of the Reference Service and is structured in three parts:
 - Toll Charge (capacity based) as described in clause 9.4(a) of the General Terms and Conditions;

- Capacity Reservation Charge (capacity and distance based) as described in clause 9.4(b) of the General Terms and Conditions; and
- Throughput Charge (throughput and distance based) as described in clause 9.4(c) of the General Terms and Conditions.
- (g) The Reference Tariff is designed to ensure that no User pays a tariff which is more than the stand alone cost of provision of the Service and no User pays a tariff which is less than the marginal cost of the provision of the Service.
- (h) The Incentive Mechanism adopted in calculation of the Reference Tariff is as follows:
 - (1) the Reference Tariff will apply during each Year of the Access Arrangement Period regardless of whether the forecasts on which the Reference Tariff was determined are realised;
 - (2) the prospect of retaining improved returns for the period to 31 December 2009 provides an incentive to GGT to increase the volume of sales and to minimise the overall cost of providing Services; and
 - (3) in determining Reference Tariffs after 31 December 2009, Users will benefit from increased efficiencies achieved by GGT up to that date through the recovery through the subsequent Access Arrangement Period of non-capital costs reflecting the efficiencies gained during this Access Arrangement Period.
- (i) The Capital Base at the commencement of the subsequent Access Arrangement Period will be determined by application of the Cost of Service Methodology, adjusted to account for New Facilities Investment and Depreciation.
- (j) For the purposes of calculating the Capital Base at the commencement of the subsequent Access Arrangement Period, where the actual cost of New Facilities differs from the forecast new Facilities Investment on which the Capital Base was determined, such new Facilities Investment will be included at the actual cost to GGT of undertaking such New Facilities.
- (k) GGT may undertake New Facilities Investments that do not satisfy the requirements of section 8.16 of the Code and may include in the Capital Base that part of the New Facilities Investment which does satisfy section 8.16 of the Code.
- (l) An amount in respect of the balance after deducting the Recoverable Portion of New Facilities Investment may subsequently be added to the Capital Base if at any time the type and volume of Services attributable to the New Facility change such that any part of the Speculative Investment Fund would then satisfy the requirements of the Code for inclusion in the Capital Base.

5.3 ~~Variation of Transportation Tariff~~ Approved Reference Tariff Variation Method

~~Except as expressly provided in the Service Agreement, the Transportation Tariff will be adjusted in accordance with clause 9 of the General Terms and Conditions.~~

Except as expressly provided in the Service Agreement, the Transportation Tariff will be adjusted by:

- (a) CPI in accordance with clause 9.8 of the General Terms and Conditions; and
- (b) a "Specified Event" as referred to in clause 5.3(c) (being a Tax Change Event or a Regulatory Change Event).
- (c) GGT has established the Transportation Tariff for the Reference Service on the basis of Taxes and regulatory requirements applying at 30 September 2004. If:
 - (1) a Tax Change Event, being any new or increased Tax, occurs during the Term of the Agreement, GGT has a discretion to adjust the Transportation Tariff to recover the financial impact of those new or increased Tax; or

- (2) during the Term of the Agreement:
 - (A) a Tax Change Event, being a material reduction in the level of Taxes below the level assumed by GGT in deriving the Transportation Tariff occurs; or
 - (B) a Tax Change Event being a removal of Tax occurs;
 - (3) and that Tax Change Event has a significant impact on the level of GGT's costs, GGT will adjust the Transportation Tariff to recover the financial impact of those reductions or removals of the Taxes (as the case may be); or there is a Regulatory Change Event, GGT may adjust the Transportation Tariff to reflect the financial impact of that change.
 - (d) Before GGT adjusts the Transportation Tariff as provided for in clause 5.3(c) GGT must:
 - (1) provide a written notice to the Regulator specifying the new, increased, reduced or removed Taxes or Regulatory Change Event (as the case may be); the scope of the financial impact; explaining how the claim is consistent with clause 5.3(c); the proposed variations to the Transportation Tariff and an effective date for the changes (a Specified Event Notice); and
 - (2) use reasonable endeavours to provide the Regulator with documentary evidence (if available) which substantiates the financial impact set out in the Specified Event Notice.
 - (e) GGT may submit one or more Specified Event Notices each Year. This notice may incorporate a number of claims relating to the changes. For the purposes of section 8.3D(b)(i) of the Code the minimum notice period for a Specified Event Notice is 15 Business Days.
 - (f) For the avoidance of doubt, any Transportation Tariff variation relating to a Tax Change Event or Regulatory Change Event must be conducted in accordance with sections 8.3D to 8.3H of the Code.
88. The Authority notes that these revisions to the Reference Tariff Policy are not responsive to the Amended Draft Decision. Accordingly, and for the reasons set out in paragraph 9 of this Final Decision, the Authority has considered the revisions as having the status of late submissions under section 2.15 of the Code.
89. In the Amended Draft Decision, the Authority took the view that the Reference Tariff Policy was largely declaratory of provisions and principles of the Code. While the substantially expanded Reference Tariff Policy of the revised Access Arrangement still in large part does this, it also includes a number of provisions that go beyond the relevant principles and provisions of the Code and seek to incorporate into the Access Arrangement a number of matters that would add to the principles and provisions of the Code relating to particular cost parameters in determination of Total Revenue and the Reference Tariff. In particular, GGT seeks to incorporate provisions into the Access Arrangement to provide for:
- the Rate of Return to reflect principles of the State Agreement (clause 5.2(b) of the revised Access Arrangement);
 - the Initial Capital Base to reflect the economic depreciated value of the GGP at the time the Code was first applied to the establishment of tariffs for the pipeline (clause 5.2(c));

- the Non Capital Costs for the pipeline to include “reasonable costs of ownership of the pipeline” (clause 5.2(e)).
90. These additional principles and provisions are contrary, or are potentially contrary, to the requirements of the Code, in particular for:
- the Rate of Return to be determined in accordance with the requirements of sections 8.30 and 8.31 of the Code;
 - the Initial Capital Base to be determined after consideration of a range of factors in section 8.10 and as guided by sections 8.11, 8.1 and 2.24 of the Code; and
 - a forecast of Non Capital Costs to meet the requirements of section 8.37 of the Code.
91. GGT has also included provisions in the Reference Tariff Policy in relation to determination of the value of the Capital Base at the beginning of the next Access Arrangement Period, indicating that:
- the Capital Base at the commencement of the next Access Arrangement Period will be determined by the “Cost of Service Methodology” (clause 5.2(i) of the revised Access Arrangement); and
 - where actual New Facilities Investment differs from the forecast New Facilities Investment, that such New Facilities Investment will be included in the Capital Base at the actual cost to GGT (clause 5.2(j)).
92. The Authority is concerned that these additional clauses unnecessarily and inaccurately re-state provisions of the Code:
- the Cost of Service methodology for determination of Total Revenue as described in section 8.4 of the Code is not a methodology for determination of a value of the Capital Base, although section 8.9 describes how the Capital Base is valued where a Cost of Service methodology is used to determine the value of Total Revenue;
 - the provisions of clause 5.2(j) of the Reference Tariff Policy fails to indicate that the addition of New Facilities Investment to the Capital Base is contingent upon the New Facilities Investment meeting the requirements of section 8.16 of the Code.
93. For the above reasons, the Authority is of the view that the revised Access Arrangement should be amended to remove clauses 5.2(b), (c), (e), (i) and (j).

Final Decision Amendment 2

The revised Access Arrangement should be amended to remove clauses 5.2(b), (c), (e), (i) and (j) from the Reference Tariff Policy.

94. Clause 5.3 of the revised Access Arrangement incorporates into the Access Arrangement an Approved Reference Tariff Variation Method under section 8.3(A) of the Code. In its Amended Draft Decision, the Authority required GGT to amend the General Terms and Conditions of the proposed Access Arrangement to remove

provisions for the variation of the Reference Tariff or to include an Approved Reference Tariff Variation Method (Amended Draft Decision Amendment 19). The Authority is satisfied that the new clause 5.3 of the Access Arrangement addresses the latter of these options and is consistent with both the provisions of sections 8.3A to 8.3H of the Code and with clause 9 of the General Terms and Conditions.

Initial Capital Base

95. Sections 8.4 and 8.5 of the Code set out methodologies that may be used to determine the Total Revenue for a pipeline:

8.4 The Total Revenue (a portion of which will be recovered from sales of Reference Services) should be calculated according to one of the following 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 or are otherwise used to provide Services (**Capital Base**);
- (b) depreciation of the Capital Base (**Depreciation**); and
- (c) the operating, maintenance and other non capital costs incurred in providing all Services (**Non Capital Costs**).

IRR: The Total Revenue will provide a forecast Internal Rate of Return (IRR) for the Covered Pipeline that is consistent with the principles in sections 8.30 and 8.31. 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 this section 8.

NPV: The Total Revenue will provide a forecast Net Present Value (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.

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 this section 8.

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

However, the methodology used to calculate the Cost of Service, an IRR or NPV may also allow the Service Provider to retain some or all of the benefits arising from efficiency gains under an Incentive Mechanism. The amount of the benefit will be determined by the Relevant Regulator in the range of between 100% and 0% of the total efficiency gains achieved.

8.5 Other methodologies may be used provided the resulting Total Revenue can be expressed in terms of one of the methodologies described above.

96. All of the methodologies described in section 8.4 of the Code for the determination of Total Revenue require, for their application, a valuation of the capital assets that form the Covered Pipeline at the commencement of the Access Arrangement Period

(“**Capital Base**”). As such, a Capital Base is required to be established when a Reference Tariff is first proposed for a Reference Service (“**Initial Capital Base**”).

97. Section 8.10 of the Code requires that a range of factors be considered in establishing the Initial Capital Base:

8.10 When a Reference Tariff is first proposed for a Reference Service provided by a Covered Pipeline that was in existence at the commencement of the Code, the following factors should be considered in establishing the initial Capital Base for that Pipeline:

- (a) 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;
- (b) the value that would result from applying the “depreciated optimised replacement cost” methodology in valuing the Covered Pipeline;
- (c) the value that would result from applying other well recognised asset valuation methodologies in valuing the Covered Pipeline;
- (d) the advantages and disadvantages of each valuation methodology applied under paragraphs (a), (b) and (c);
- (e) international best practice of Pipelines in comparable situations and the impact on the international competitiveness of energy consuming industries;
- (f) the basis on which Tariffs have been (or appear to have been) set in the past, the economic depreciation of the Covered Pipeline, and the historical returns to the Service Provider from the Covered Pipeline;
- (g) the reasonable expectations of persons under the regulatory regime that applied to the Pipeline prior to the commencement of the Code;
- (h) the impact on the economically efficient utilisation of gas resources;
- (i) the comparability with the cost structure of new pipelines that may compete with the pipeline in question (for example, a Pipeline that may by-pass some or all of the Pipeline in question);
- (j) the price paid for any asset recently purchased by the Service Provider and the circumstances of that purchase; and
- (k) any other factors the Relevant Regulator considers relevant.

98. Section 8.10 of the Code sets out a range of matters to be considered in establishment of the Initial Capital Base “that by their nature require consideration of disparate issues which may well tend in different directions”.¹⁰ The process is “more than one of mere valuation”.¹¹ Exercise of discretion by the Authority is required in establishing the value of the Initial Capital Base, taking into account the considerations under section 8.10 and attaching weight to these considerations.¹²

¹⁰ Epic Decision, *ibid*, p 534.

¹¹ Epic Decision, *ibid*, p 534.

¹² Epic Decision, *ibid*, p 534.

99. Guidance for the Authority's discretionary evaluation is provided by other sections of the Code, notably sections 8.11, 8.1, and section 2.24.¹³
100. In the Access Arrangement Information supporting the proposed Access Arrangement, GGT proposed that the Initial Capital Base for the Goldfields Gas Pipeline should be \$452.6 million, described by GGT as a Depreciated Optimised Replacement Cost ("DORC") value and including a value ascribed to capital not valued as part of the pipeline itself (\$3.8 million less \$0.4 million depreciation) and working capital (\$2.6 million).¹⁴
101. In its Amended Draft Decision, the Authority assessed whether this value conforms to the principles of the Code, having regard to the role of the Initial Capital Base in determination of the Reference Tariff.
102. In assessing GGT's proposed value of the Initial Capital Base, the Authority considered, amongst other things, later submissions from GGT in which GGT submitted that, contrary to its original proposal for the Initial Capital Base, sections 8.10(f) and (g) of the Code provide justification for establishing the Initial Capital Base at a value determined by calculation of capital recovery.¹⁵ GGT proposed that a value thus determined is \$553.4 million at 30 June 2002 and that this value should comprise the Initial Capital Base for the GGP.¹⁶ The Authority took issue with a number of elements of the calculation used by GGT in deriving this value and decided that the value determined taking into account the factors of sections 8.10(f) and (g) of the Code is lower than put forward by GGT: between \$465 million and \$501 million depending on the valuation date.
103. The Authority took the view that the Initial Capital Base for the GGP should be determined at the date of 31 December 1999 (i.e. as an opening asset value for 1 January 2000), commensurate with the original intention of the Western Australian Government to have an Access Arrangement in place for the GGP at 1 January 2000.
104. The Authority considered all of the factors of section 8.10 of the Code, the objectives of section 8.1 and the factors of section 2.24 in making its determination on the proposed Initial Capital Base. Three matters featured particularly in the Authority's deliberations, summarised as follows.
- The consistency of values close to the DAC and DORC values estimated by the Authority (\$434 million and \$407 million, respectively) with the objectives of

¹³ The Authority notes that this process for consideration of the Initial Capital Base for a pipeline is different to the process contemplated by the Australian Competition Tribunal in its review of the decision of the ACCC to approve its own Access Arrangement for the Moomba to Sydney Pipeline (*Application by East Australian Pipeline Limited* [2004] ACompT 8). The Authority's reasons for not adopting the process contemplated by the Australian Competition Tribunal were set out in Appendix A of the Amended Draft Decision.

¹⁴ Access Arrangement Information, section 4.5. Sections 4.1 to 4.4 of the Access Arrangement Information provide information in support of this determination of the Initial Capital Base.

¹⁵ Goldfields Gas Transmission, 13 July 2001, Public Submission No. 1 on Draft Decision for the Goldfields Gas Pipeline Proposed Access Arrangement. Goldfields Gas Transmission Pty Ltd, 17 December 2002, Public Submission on Stage 1 as Required by the 6 November 2002 Notice of the Acting Gas Access Regulator.

¹⁶ Goldfields Gas Transmission Pty Ltd, 17 December 2002, Public Submission on Stage 1 as Required by the 6 November 2002 Notice of the Acting Gas Access Regulator.

section 8.1 of the Code, with the interests of Users and Prospective Users and, in part, with the public interest and the legitimate business interests of GGT.

- The legitimate business interest of GGT in retaining benefits gained by charging (in the period prior to introduction of the Code) tariffs that, while embodying a rate of return to GGT in excess of a reasonable estimate of the cost of capital for the GGP, were able to lawfully be charged to Users. The Authority considered that the value of the Initial Capital Base that would recognise this interest is that of \$495 million at 31 December 1999.
 - A substantial public interest in avoiding a possible perception of risk to investors in infrastructure assets that may arise if the Initial Capital Base were to be valued in such a manner that there is a "clawing back" of benefits gained by GGT through the legitimate implementation of tariffs under the previous tariff regime (described by the Authority as "sovereign risk"). The Authority considered that the value of the Initial Capital Base that would recognise this interest is also that of \$495 million at 31 December 1999.
105. The Authority took the view that the legitimate business interests of GGT and the public interest should be accorded substantial weight in establishing an Initial Capital Base reflecting past capital recovery by GGT. The Authority considered that the value of the Initial Capital Base originally proposed by GGT of \$452.6 million at 31 December 1999 did not give sufficient recognition to these interests and therefore did not conform to the principles of the Code. After taking into account all of the matters referred to in paragraph 104, the Authority decided the value of the Initial Capital Base should be \$480 million at 31 December 1999 (including a value of working capital of \$1.3 million).
106. GGT has not revised the proposed Access Arrangement to incorporate the required amendment that the Reference Tariff be revised to reflect an Initial Capital Base of \$480 million at 31 December 1999. Rather, GGT has presented a revised Reference Tariff that reflects an Initial Capital Base of \$672 million at 31 December 1999.
107. GGT has sought to justify the Initial Capital Base of \$672 million – and presumably to address the reasons of the Authority in requiring that Reference Tariffs reflect an Initial Capital Base of \$480 million – by giving consideration to a calculation of residual value of the GGP reflecting the setting of third-party tariffs prior to 31 December 1999 and the extent of capital recovery arising from those tariffs. As indicated above and in the Amended Draft Decision, the Authority considered that the value of the GGP assets that takes these factors into account is \$495 million at 31 December 1999. GGT submits that the Authority erred in the derivation of this value and that, properly calculated, the residual value is \$672 million at 31 December 1999. GGT further submits that as the residual value of \$495 million as derived by the Authority heavily informed the Authority in determining the value of the Initial Capital Base of \$480 million, the Authority should re-assess the value of the Initial Capital Base, and should determine that value to be no less than \$672 million.¹⁷

¹⁷ Goldfields Gas Transmission, 23 November 2004, Goldfields Gas Pipeline: Supplementary Submission Regarding Amended Draft Decision.

108. The Authority has considered GGT's submission on the residual value of the GGP and on GGT's revised value of the Initial Capital Base and is not satisfied that GGT's revised value addresses the reasons expressed in the Amended Draft Decision for the requirement to change the value of the Initial Capital Base to \$480 million at 31 December 1999. In light of submissions from GGT and from other parties, the Authority has further considered the value of the Initial Capital Base and its own reasoning as expressed in the Amended Draft Decision. This further consideration is set out as follows, and includes the reasons for the Authority not being satisfied that GGT's revised value of the Initial Capital Base addresses the reasons for the Authority's required amendment under the Amended Draft Decision.
109. Consideration is first given to the factors of section 8.10(a) of the Code, which are required to be taken into account in determining the value of the Initial Capital Base.
110. Section 8.10(a) of the Code requires that consideration be given to:
 - 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.
111. Determination of the value of depreciation under s.8.10(a) requires knowledge of:
 - the value of any explicit allowance for depreciation in past determination of tariffs for the pipeline; and/or
 - the part of revenue derived from the past sale of pipeline services that has been recorded as a depreciation allowance.
112. Either of these determinations involves obtaining information about the depreciation actually applied by the past owners of the GGP. This information has not been provided to the Authority by either GGT or the past and present owners of the GGP.
113. The objective of section 8.10(a) is the valuation of the unrecovered amount of the initial investment in the pipeline assets. In the absence of information on the value of depreciation charged or "thought to have been charged" to Users, the Authority determined in the Amended Draft Decision that this objective is best achieved by reference to a calculated excess of revenue over a relevant rate of return and operating costs, consistent with the historical capital-recovery methodology first proposed by GGT in its submission of 17 December 2002.
114. While this methodology was identified in submissions made to the Authority as inconsistent with the usual concept of a DAC value (whereby a value of depreciation may be derived from components of prices charged to Users that were actually or notionally allocated to depreciation), there are specific circumstances of the GGP that cause a capital-recovery calculation to be an appropriate methodology.
115. The Authority notes that under the Tariff Setting Principles approved for the GGP under the *Goldfields Gas Pipeline Agreement Act 1994*, there exists a requirement that tariffs be set to recover the capital cost of the GGP over time and to provide a commercial rate of return on all project capital, and that tariffs be re-determined when found to be inconsistent with these requirements. It is consistent with these

requirements that the return of capital to the pipeline owners (i.e. depreciation) be considered as the value of returns over and above a commercial rate of return.

116. The Authority therefore maintains the view that the methodology is appropriate in the absence of information on specific values of depreciation of the pipeline for regulatory or accounting purposes.
117. In the Amended Draft Decision, the Authority determined the DAC value under section 8.10(a) of the Code to be \$434 million at 31 December 1999. The calculation of the residual value of the GGP was described by the Authority in the Amended Draft Decision.¹⁸ Under this methodology, the return of capital to the pipeline owners in any period was determined as the excess of revenue over the sum of operating costs and a return on capital, where the latter is determined by multiplying a rate of return by the opening asset value for the period. The benchmark rate of return used in this determination was an estimate by the Authority of the cost of capital for the GGP project in each quarterly period since the commencement of pipeline construction.¹⁹ The return of capital thus determined may be positive (an excess of revenue over operating costs and the return on capital) or negative (a deficit of revenue below operating costs and the return on capital). The change in asset value from one period to the next is equal to the opening asset value for the period plus new capital expenditure in the period minus the return of capital in the period. Where the return on capital for a period is determined to be negative, the “loss” is capitalised into the asset value.
118. GGT submits that the Authority has erred in calculation of a DAC value by using an inappropriate methodology under section 8.10(a) of the Code. The model of capital recovery used by the Authority took into account both capital “under recovery” as well as capital recovery. GGT submits that section 8.10(a) requires consideration only of capital recovery and should properly ignore capital *under* recovery. GGT further submits that when capital recovery is calculated relative to a benchmark rate of return of 18.81 percent (pre-tax nominal, as set out by GGT in its original proposal of third-party tariffs to the Western Australian State Government), there was no capital recovery for the period to 31 December 1999. GGT thus indicates that the DAC value should therefore be calculated simply as the construction cost of the pipeline plus an allowance for interest during construction, calculated at 18.81 percent. GGT has variously indicated this value to be \$507 million,²⁰ \$500.5 million²¹ and \$522.7 million.²²
119. Other parties have also submitted that section 8.10(a) requires consideration only of capital recovery and should properly ignore capital under recovery.
120. The Authority accepts the submission from GGT and other parties that section 8.10(a) of the Code requires that consideration be given only to capital recovery and not

¹⁸ Amended Draft Decision, paragraphs 83 – 100, Appendix B.

¹⁹ The Authority’s derivation of the DAC value is described in Appendix B of the Amended Draft Decision.

²⁰ GGT Submission dated 8 October 2004.

²¹ GGT Submission dated 23 November 2004.

²² GGT Submission dated 23 November 2004, with value expressed in dollar values of 31 December 1999.

capital under-recovery. However, the Authority does not accept GGT's submission in respect of other elements of the calculation of capital recovery for the purposes of section 8.10(a), including submissions in respect of the methods and assumptions for modelling capital recovery.

121. The relevant elements of the methodology and assumptions applied by the Authority and GGT's submissions on each are considered as follows.

Calculation in real or nominal dollar values

122. In the Amended Draft Decision, the Authority distinguished between calculation of capital recovery in real and nominal terms noting that the essential difference between a real (or inflation adjusted) calculation and a nominal (historical cost) calculation is the implications of actual inflation differing from the forecast. In a real calculation, investors are insulated from this inflation risk; under a nominal calculation, they bear this risk. That is, under a real calculation the investors are compensated for inflation at the actual rate at which inflation occurs. Under a nominal calculation, investors stand to make a loss if actual inflation exceeds the rate of inflation assumed in estimating the nominal weighted average cost of capital ("WACC"), and a windfall gain if actual inflation is less than the rate of inflation assumed in estimating the nominal WACC.
123. In the Amended Draft Decision, the Authority determined that it was appropriate to calculate capital recovery on a real-value basis as the historical tariff regime for the GGP insulated the investors in the GGP from inflation risk by escalation of tariffs for realised inflation.
124. GGT contests this determination of the Authority, indicating that the escalation of tariffs for realised inflation does not have the effect of insulating investors from inflation risk and therefore a nominal approach to calculation of capital recovery is appropriate. GGT submits that the costs incurred in constructing and operating the GGP would only be recovered if realised inflation were to be equal to the rate (of 4 percent) forecast in the original tariff determination and, if realised inflation were to be less than this forecast rate, then there would be a risk of under-recovery of costs.
125. The Authority does not accept GGT's submission. Contrary to the view expressed by GGT, if realised inflation were to be less than that forecast, then both recovery of the initial capital investment and subsequent operating costs would be preserved by the escalation of tariffs with realised inflation. Moreover, GGT has not made any submission on the finding by the Authority that the pre-investment financial analysis undertaken by at least one of the original investors in the GGP implies consideration by that investor of returns in real (rather than nominal) terms. The Authority therefore does not accept that calculation of capital recovery in real rather than nominal terms constitutes an error.

Revenue

126. To calculate capital recovery, it is necessary to determine values of revenues obtained from Users of the GGP, including the original joint venturers and other third-party Users.

127. A determination of revenue obtained from the original joint venturers is problematic as the original joint venturers, at least for the period in which they maintained ownership of the pipeline, did not pay an explicit tariff. For this reason, both GGT (in its original submission to the Authority on the capital recovery calculation) and the Authority (for the purposes of the Amended Draft Decision) calculated a notional revenue obtained from the original joint venturers as if the original joint venturers had paid the tariff that would have applied to a third-party User from time to time. In taking this approach, both GGT and the Authority determined the notional prices paid for gas transmission on the premise that the capacity reserved for use by each of the joint venturers constitutes the contracted capacity that would have been paid for if the original joint venturers had been third-party Users of the pipeline. The Authority also took into account that if the original joint venturers had been third-party Users they would have been eligible to pay a discounted “foundation user” tariff.
128. GGT submits that the approach taken by GGT itself in its original submission on the capital recovery calculation and by the Authority in the Amended Draft Decision is incorrect and overstates an appropriate value of notional revenues from the original joint venturers. In particular, GGT contends that:
- the notional revenue from the joint venturers should be based on applying the relevant third-party tariffs to the actual volume of gas delivered on behalf of each of the joint venturers and an amount of notional contracted capacity calculated from this volume based on an assumed load factor of 91 percent, rather than taking a notional contracted capacity to be equal to the capacity reserved for each of the joint venturers pursuant to clause 8(1) of the State Agreement; and
 - the revenue from each of the original joint venturers should be calculated as a notional revenue only for the period until the original joint venturers sold their shares in ownership of the GGP and thereafter the revenue should be the actual revenue paid by the original joint venturers to the new pipeline owners.
129. The Authority does not accept the first of these contentions of GGT. The Authority is not satisfied that observation of actual volumes delivered and calculation of a notional contracted capacity is an appropriate basis for calculating notional revenue from the original joint venturers. Rather, the Authority is of the view that as capacity reserved to each of the original joint venturers under the State Agreement was unavailable for use by any other party it is practically equivalent to contracted capacity of a third-party User and therefore should be treated as contracted capacity for the purpose of calculation of notional revenue.
130. The Authority accepts GGT’s second contention that notional revenues should only be used for the original joint venturers only for the period prior to sale by each of the original joint venturers of their interest in the pipeline. However, the Authority only accepts this contention for the purposes of a capital recovery calculation for determination of a value under section 8.10(a) of the Code for which regard is had to actual capital recovery rather than, necessarily, reflecting past determination of tariffs. For a value reflecting considerations under sections 8.10(f) and 8.10(g) of the Code, the Authority maintains the view that consideration of historical tariffs must be assessed in the context of the Tariff Setting Principles established under the State

Agreement.²³ Principle 2 of the Tariff Setting Principles requires that in consideration of the recovery of pipeline costs, the “Owners” will be ascribed a notional tariff based on third-party tariffs. The “Owners” means the joint venture participants.

Rate of Return

131. In the calculation of historical capital recovery, capital recovery in any period is calculated relative to a benchmark rate of return on capital. In the Amended Draft Decision, the Authority determined that, for the purposes of section 8.10(a) the benchmark rate of return should be an estimate of the cost of capital for the GGP project in each quarterly period since the commencement of construction.
132. GGT submits that the Authority erred in this view of the appropriate WACC to use as the benchmark rate of return in the calculation of capital recovery. GGT contends that the appropriate WACC value is 18.81 percent (pre-tax nominal) reflecting:
 - a value proposed to the Western Australian State Government prior to commencement of construction of the GGP ; and
 - the rate of return on investment expected by the joint venturers over the entire project life of the GGP.

GGT submits that this WACC value was one of a set of economic parameters used to derive the A1 Tariff that were proposed to, and approved by, the Government.
133. In light of GGT’s submission, the Authority has given further consideration to the appropriate rate of return to take into account in calculation of a value under section 8.10(a) of the Code. In this regard, the Authority notes that section 8.10(a) requires depreciation to be considered in terms of “accumulated depreciation ... charged to Users or thought to have been charged to Users prior to the commencement of the Code”. Contrary to the position taken in the Amended Draft Decision, the Authority considers that as section 8.10(a) refers specifically to depreciation “charged to Users”, section 8.10(a) could require depreciation to be interpreted as revenue in excess of rates of return used to derive, or implied by, third-party tariffs established under the State Agreement.
134. The appropriate assumption as to the rate of return (or WACC) that reflects past setting of tariffs requires an assessment of the basis for setting tariffs and for recovery of capital under the State Agreement. This in turn requires a view to be taken on the meaning of relevant provisions of the State Agreement, in particular:
 - whether GGT and the Government agreed that tariffs established at the commencement of the project would persist indefinitely, or tariffs would be reviewed periodically;
 - whether the WACC assumed for the purposes of the initial tariff determination was to be maintained at the rate established at the commencement of the pipeline

²³ The Tariff Setting Principles are reproduced in Appendix C of the Amended Draft Decision.

project, or was to be re-estimated from time to time to comply with the Tariff Setting Principles; and

- whether the Government actually had the power to require tariffs to be reset to incorporate a WACC that reflects a market cost of capital, and changes in the market cost of capital.
135. In the Amended Draft Decision (and in relation to section 8.10(f) of the Code), the Authority took the following view on the WACC value that reflects the past determination of tariffs.
- For the period from commencement of construction of the pipeline (1994) to 31 December 1997, it is appropriate to assume a WACC value corresponding to the rate of return that GGT assumed in its A1 Tariff model as the appropriate WACC for that period. This WACC value reflects GGT's actual expectations, as evidenced by the financial model used to determine tariffs.
 - For the period 1 January 1998 to 31 December 1999, it is appropriate to assume a WACC value corresponding to the return implied by GGT's financial model used to determine tariff discounts. Again, this WACC value reflects GGT's actual expectations as evidenced by the financial model used to determine the A2 Tariff. The Government had advice that the WACC estimates were excessive, but did not pursue a lower value and a correspondingly lower tariff.
 - For any period after 31 December 1999, it is appropriate to assume a WACC based on GGT's expectations for this period being the continued use of either the WACC that GGT assumed in its financial model used to determine tariff discounts (for the period to December 2001), or in the financial model used to determine the A1 Tariff (for the period after December 2001).
136. GGT submits that the Authority erred in this view of the appropriate WACC to use as the benchmark rate of return in the calculation of capital recovery taking into account the past setting of tariffs for the reasons set out in paragraph 132 above.
137. Contrary to the submissions of GGT set out in paragraph 132 above, the Authority has not sighted any information which supports the assertion that the nominal pre-tax WACC of 18.81 percent was used to derive the A1 Tariff, nor which indicates that this rate of return was a target rate of return for the project. To the contrary, the financial model relating to the derivation of the A1 Tariff implies an expected rate of return over the full project life of less than the value of 18.81 percent cited by GGT, and the financial model relating to the derivation of the discounted tariff introduced in 1998 implies a still lower expected rate of return over the entire project life. There has been no information provided to the Authority that serves as evidence that the owners of the GGP expected rates of return over the life of the GGP project other than as implied by these models. The Authority therefore does not accept GGT's submission that the Authority erred in its determination of the appropriate benchmark rate of return to use in calculation of capital recovery taking into account the past setting of tariffs, and considers that the rates of return implied by GGT's actual tariff models are the appropriate rates of return to use for this purpose.

Capital Costs

138. In the calculation of historical capital recovery for the Amended Draft Decision, the Authority took into account the capital costs incurred in the initial construction of the GGP and in development subsequent to initial construction. Information on capital costs was obtained from GGT through the powers under section 41 of Schedule 1 to the *Gas Pipelines Access (Western Australia) Act 1998*.
139. GGT submits that the capital costs taken into account by itself and by the Authority in calculation of capital recovery omitted the cost of pipeline linepack gas. GGT submits that the calculation of capital recovery should take into account the cost of linepack gas and submits that the cost of linepack gas was, in total, about \$1.1 million by 31 December 1999. No information was provided to the Authority in support of this statement of cost.
140. The Authority accepts that it is appropriate to take into account the cost of linepack gas in calculation of capital recovery. The nature of information provided by GGT on this cost suggests that the cost data are not historical records of actual cost but rather comprise an assumed or notional cost. Despite this, the Authority accepts that the cost of linepack was a cost of a capital nature that was incurred by GGT in commencing operations of the GGP and hence that the submitted cost should be included in the calculation of capital recovery.

Operating Costs

141. In the calculation of historical capital recovery for the Amended Draft Decision, the Authority took into account the operating costs incurred during construction and subsequent operation of the GGP. Information on operating costs was obtained from GGT through the powers under section 41 of Schedule 1 to the *Gas Pipelines Access (Western Australia) Act 1998*.
142. GGT submits that the operating costs taken into account by itself and by the Authority in calculation of capital recovery omitted any allowance for costs in the nature of “corporate overhead” costs incurred by the joint venture participants in managing their interests in the GGP. GGT submits that an estimate of such costs should be included in the operating costs for the purposes of calculation of capital recovery and submits a total cost of \$3.9 million to 31 December 1999. The Authority has considered the inclusion of corporate overhead costs in the operating costs for the GGP as part of the consideration in this Final Decision of Non Capital Costs (paragraph 322 and following). The Authority has accepted the inclusion of corporate overhead costs as a component of the Non Capital Costs taken into account in determination of the Reference Tariff and accordingly accepts that it is appropriate to include such costs as a component of operating costs in consideration of past capital recovery.

Working Capital

143. In the calculation of historical capital recovery for the Amended Draft Decision, the Authority took into account a value of working capital of the GGT business. Information on the value of working capital was obtained from GGT through the

powers under section 41 of Schedule 1 to the *Gas Pipelines Access (Western Australia) Act 1998*.

144. GGT submits that it has reviewed the value of working capital previously indicated to the Authority and has provided revised values of working capital that it submits should be taken into account for the purposes of calculation of capital recovery. For quarterly periods from the fourth quarter of 1996 to the fourth quarter of 1999, the revised values of working capital are between \$100,000 and \$540,000 greater than the values previously submitted to the Authority. No information was provided to the Authority to indicate the reason for the revisions to the values of working capital.
145. The Authority accepts that it is appropriate to take account of a value of working capital in the calculation of capital recovery and the Authority did so in its calculation of capital recovery for the purposes of the Amended Draft Decision. The Authority also accepts that ascribing a value to a working capital requirement is typically undertaken as a “rule of thumb” rather than as a value evident from historical accounting records or able to be estimated by a standard methodology. As such, there is no uniquely correct value of working capital for a business such as GGT. GGT has determined a value of working capital as a proportion of operating and capital costs and, hence, the assumed value of working capital has changed with changes in these cost values. The Authority accepts this as appropriate in the determination of historical capital recovery.²⁴
146. Having regard to GGT’s submission and the matters raised in respect of each of the elements of a capital-recovery calculation, as examined above, the Authority does not accept that it erred in the calculations of capital recovery undertaken for the Amended Draft Decision, for the reasons claimed by GGT. While the Authority accepts that more appropriate assumptions may be made in respect the value of linepack gas, the value of operating costs and the value of working capital, changes in these assumptions rely on information provided by GGT to the Authority only subsequent to the Amended Draft Decision.
147. On reconsidering the value of the GGP under section 8.10(a) of the Code, the Authority accepts that three changes in determination of this valuation using a capital recovery calculation may be appropriate:
 - consideration only of capital recovery and not capital under-recovery;
 - calculation of capital recovery relative to a rate of return that was used to determine tariffs, or was implied by tariffs; and
 - accounting for revenue from the original owners of the pipeline as the actual revenue, rather than notional revenue, received from these parties in the period subsequent to the sale by each of the original owners of interests in the GGP.

²⁴ The Authority has given further consideration to the value of working capital for the purposes of calculation of the Reference Tariff for the Access Arrangement Period. This is described in paragraph and following of this Final Decision.

148. In respect of the last of these changes, GGT has not provided the Authority with sufficient information to enable the Authority to make a correction to the value under section 8.10(a) to take into account this difference in determination of revenue. With the other changes made to the methodology and assumptions, and considering only actual capital recovery in the period after commencement of operation of the pipeline,²⁵ the value derived under section 8.10(a) is \$484 million at 31 December 1999, as compared with the value of \$434 million indicated in the Amended Draft Decision at the same valuation date.
149. Section 8.10(b) of the Code requires that consideration be given to:
- the value that would result from applying the Depreciated Optimised Replacement Cost methodology in valuing the Covered Pipeline.
150. In the Amended Draft Decision, the Authority determined the DORC value under section 8.10(b) of the Code to be \$407 million at 31 December 1999. This value was determined on the basis of an estimated Optimised Replacement Cost of \$432 million estimated on the basis of the hypothetical optimised pipeline meeting the service levels implied by clause 9(5) of the State Agreement and depreciation by a straight-line methodology over an assumed asset life of 65 years.
151. GGT submits that the Authority erred in its derivation of a DORC value for reasons that the Authority:
- failed to take into account the design constraints imposed on the pipeline by clause 9(5) of the State Agreement;
 - did not include a cost of interest during construction; and
 - did not take into account a DORC value estimated by a “net present value” methodology.
152. GGT submits that the DORC value for the pipeline as it existed at 31 December 1999 should be estimated at \$540.3 million, based on an Optimised Replacement Cost value of \$586.3 million (in dollar values of 1999) and depreciation of this value by the straight-line methodology over an assumed asset life of 70 years. In support of this value, GGT has submitted to the Authority a separate report on the estimation of the DORC value.²⁶
153. The Authority does not accept GGT’s submission that the Authority erred in failing to take into account the design constraints imposed on the pipeline by clause 9(5) of the State Agreement. While the Authority accepts that design constraints were imposed by the State Agreement on construction of the GGP, it is not appropriate to recognise these constraints in determination of a DORC value, which is a hypothetical value determined for the purpose of taking into account the efficient cost of building a new asset of a given level of service potential. To the extent that the design constraints on

²⁵ Capital “under-recovery” prior to the commencement of operation of the pipeline is still considered in determination of this revised value as a means of accommodating a value of interest during construction.

²⁶ Venton & Associates Pty. Ltd., 21 October 2004, Goldfields Gas Transmission Joint Venture: Goldfields Gas Pipeline Estimated Replacement Cost.

pipeline design are a relevant matter to consider in determining the Initial Capital Base for the GGP, they may be considered under other factors of section 8.10 of the Code.

154. The Authority also does not accept GGT's submission that the Authority erred in not taking into account the cost of interest during construction in determining the DORC value. The DORC value determined by the Authority included a cost of interest during construction calculated at an annual equivalent rate of 8 percent of construction costs.
155. The Authority has considered the reasons why the estimate of a DORC value at 31 December 1999 provided by GGT subsequent to the Amended Draft Decision (\$540.3 million) differs from the Authority's determination as indicated in the Amended Draft Decision (\$407 million). In this regard, the Authority notes that the differences may be due to the following factors.
 - The DORC value submitted by GGT did not take into account any possible optimisation of the pipeline design, and therefore is in the nature of a depreciated replacement cost rather than DORC, and therefore a higher value.
 - The DORC value submitted by GGT was derived from actual construction data and costs and therefore potentially includes higher costs associated with particular construction difficulties, such as difficult ground conditions, which were not taken into account in the desk top study undertaken for the Authority. The Authority notes in this regard that the unit costs of construction implied by the DORC value stated in the Amended Draft Decision (\$742 / mm.km in dollar values of 2000) are less than the reported cost unit cost of construction (\$924 / mm.km in dollar values of 1999).²⁷
 - The DORC value submitted by GGT was determined based on unit costs of materials and labour for 2004 which, even allowing for escalation for inflation, are indicated to be greater than unit costs of 1999/2000. The report provided by GGT relating to the submitted DORC value indicates that costs of pipeline construction have increased at a rate in excess of the rate of inflation (as measured by the Consumer Price Index) between 1997 and 2004.²⁸
 - The DORC value submitted by GGT included an "interest during construction" cost based on an annual interest rate of 9 percent, rather than 8 percent for the DORC value stated by the Authority in the Amended Draft Decision.
 - The DORC value submitted by GGT was determined based on depreciation over an asset life of 70 years, rather than 65 years for the DORC value stated by the Authority in the Amended Draft Decision.

²⁷ Venton, P., 1998. *Australian Transmission Pipeline Costs 1976 – 1998*, paper presented at the APIA 1998 International Convention.

²⁸ Venton & Associates Pty. Ltd., 21 October 2004, Goldfields Gas Transmission Joint Venture: Goldfields Gas Pipeline Estimated Replacement Cost

156. The Authority accepts the value submitted by GGT as a rigorous estimate of a Depreciated Replacement Cost, but not as a DORC value. Nevertheless, the Authority accepts that the range of reasonable estimates of a DORC value for the GGP, when estimated using unit costs of 2004, may extend to values in the order of \$500 million in dollar values of 1999, and notes that the difference between this value and the Authority's earlier estimate of DORC is close to a margin of error of 20 percent previously indicated by the Authority as potentially applying to DORC estimates.²⁹
157. The Authority accepts that a DORC value may properly be calculated using a methodology that is able to be referred to as a "net present value" methodology. The Authority is of the view that such a value would be calculated according to the following formula that takes into account differences in the service potential and operating costs of a new asset and an existing asset:

$$DORC_0 = ORC_0 - \sum_{t=1} \frac{Serv_{New,t} - Serv_{Existing,t}}{(1+r)^t} - \sum_{t=1} \frac{Cost_{Existing,t} - Cost_{New,t}}{(1+r)^t}$$

where $DORC_0$ is the DORC value at the current time, ORC_0 is the optimised replacement cost at the current time, $Serv_t$ is the value of the service potential of the relevant asset in time period t , $Cost_t$ is the forward looking cost of operating and maintaining the asset in time period t , and r is the discount rate.³⁰

158. While GGT has submitted to the Authority an estimate of a DORC value derived by a net present value methodology (\$580 million at 31 December 1999), GGT has not provided details of the derivation of this value. The Authority has therefore been unable to satisfy itself that this value has been determined appropriately.
159. Section 8.10(c) of the Code requires that consideration be given to:
- the value that would result from applying other well recognised asset valuation methodologies in valuing the Covered Pipeline.
160. In the Amended Draft Decision, the Authority gave attention under section 8.10(c) of the Code to Replacement Cost and Depreciated Replacement Cost valuations of \$450 million and \$425 million at 31 December 1999.
161. As indicated above in relation to a DORC value determined under section 8.10(b) of the Code, GGT has made a submission that a value in the nature of a Depreciated Replacement Cost, estimated at 2004 for the GGP as it existed at 31 December 1999, may be in the order of \$540 million (in dollar values of 1999). The Authority accepts that this value is a reasonable estimate of a Depreciated Replacement Cost.
162. The Authority also considered in its Amended Draft Decision and under section 8.10(c), a value as revealed by sales in shares of ownership of the GGP and the prices

²⁹ Economic Regulation Authority, 23 May 2003, Final Decision on the Proposed Access Arrangement for the DBNGP, paragraph 121.

³⁰ This formula is taken from "The Allen Consulting Group, August 2003, *Methodology for Updating the Regulatory Value of Electricity Transmission Assets*, report to the Australian Competition and Consumer Commission. It is assumed for simplicity that all costs and revenues are incurred at the end of each time period.

paid for those shares. In doing so, the Authority took into account changes in ownership of the GGP in the period December 1998 to March 1999, when shares in ownership were sold by the original joint venture partners.

163. GGT provided information to the Authority indicating that WMC Resources sold its 63 percent share for approximately \$402 million and Normandy Pipelines sold its 25 percent share for approximately \$147 million.³¹ While the sale of the remaining share by BHP Minerals was conducted in conjunction with the sale of other assets and the sale price of the pipeline assets could not be separately determined, GGT estimated the full sale price of the Goldfields Gas Pipeline to be approximately \$624 million, on the basis of the proportionate values of the shares sold by WMC and Normandy.
164. The Authority took the view that there is some margin of error in attributing an implied sale price to the GGP assets in total from a number of transactions. However, the Authority accepted for the purposes of the Amended Draft Decision that the total purchase price for the GGP when sold by the original joint venturers was implied to be in the order of \$620 million.
165. WMC Resources Ltd has submitted to the Authority that the value of \$620 million overstates the “fair market value” of the GGP as it does not clearly and transparently take into account, *inter alia*, the value of unregulated assets that were included in the transactions and value arising from the particular contractual arrangements between the new pipeline owners and the original owners in respect of gas transportation for the original owners. WMC Resources submits that when these factors are taken into account the value of the GGP assets that is revealed by the prices paid would be at or below \$500 million.
166. WMC Resources also cites in its submission the purchase by the Australian Pipeline Trust of a greater interest in the GGP in August 2004 and indicates that the price paid in this purchase implies a value of \$493 million.
167. Even regardless of the difficulties of establishing a market value for the GGP from the evidence of past sales of shares of ownership, the Authority considers that there are a number of difficulties in using a market value to establish an appropriate value for the Initial Capital Base.
168. Firstly, the Authority accepts WMC’s submission that the prices paid at different times for shares in ownership of the GGP may have been affected by matters such as contractual arrangements between the new owners and the original joint venture participants and hence the prices paid do necessarily indicate a unique market value for the assets. Where the pipeline purchase takes place as part of a purchase of a shareholding or joint venture interest, there would be taxation and other issues associated with the particular purchasing entity that would need to be bought to account in deriving an implied market value from a purchase price.
169. Secondly, observed purchase prices are not necessarily indicative of a fair or reasonable market value or what would have been a fair price to pay in the

³¹ Access Arrangement Information, section 4.1.2.

circumstances at the time of the purchase. In the Epic Decision, the Court found that consideration of the price paid for pipeline assets, as a consideration in respect of the Initial Capital Base, should include consideration of whether the purchase price represented a reasonable commercial judgement as to the value of the pipeline. This matter was raised by the Authority in its Amended Draft Decision³² and neither GGT nor the owners of the GGP have provided the Authority with information to enable consideration of the circumstances and reasonableness as an exercise of commercial judgement of the purchases of shares of ownership in the GGP.

170. Thirdly, there is not a one to one relationship between the market value of a regulated asset and the regulatory value of the asset. One of the matters affecting the market value of a regulated asset is the regulatory asset value applied to, or expected to be applied to, the asset. Moreover, purchase prices and market values of regulated pipeline assets in Australia and overseas generally comprise multiples of known or expected regulatory values.³³
171. Taking into account the above, the Authority does not consider that it has sufficient information to draw conclusions on a value of the GGP that may be revealed by purchase prices in sales of shares in ownership. The Authority thus also considers that the available information on prices paid for shares of ownership of the GGP provides limited assistance in the process of establishing an appropriate Initial Capital Base.
172. Section 8.10(d) of the Code requires that consideration be given to:

the advantages and disadvantages of each valuation methodology applied under paragraphs (a), (b) and (c).
173. Neither section 8.10(d) nor the remainder of section 8.10 provides guidance as to the assessment of advantages and disadvantages of different valuation methodologies, although the valuation methodologies may be considered and evaluated on their merits.³⁴ The Authority considers that “merits” in this context refers to their suitability as methodologies for establishing the Initial Capital Base for the GGP, as opposed to pipelines generally.
174. In the Amended Draft Decision, the Authority considered an advantage of a DAC valuation to be that it provides for recovery by the owner of an asset of the actual investment undertaken in construction of the asset and, to the extent that capitalised losses are taken into account, any further explicit or implied investment by the pipeline owners in developing the pipeline business.
175. The Authority recognised in the Amended Draft Decision that, in the context of the determination of the DAC value by the Authority under section 8.10(a) of the Code, using an estimate of past capital recovery over and above a benchmark rate of return, would provide assurance to GGT that it would have an Initial Capital Base

³² Amended Draft Decision, paragraph 132.

³³ The Allen Consulting Group, August 2003, *Review of the Gas Code: Commentary on Economic issues*, Chapter 5 (report appended to BHP Billiton Initial Submission to the Productivity Commission Review of the Gas Code, September 2003, www.pc.gov.au/inquiry/gas/subs/sublist.html).

³⁴ Epic Decision, *ibid*, p 534.

determined consistent with recovery over time of the value of investment in the GGP and a rate of return on investment equal to the estimated cost of capital for the project. However, the reduction of risk would not extend to ensuring that GGT is able to retain the benefits that have been legitimately gained to the date of valuation through a past tariff regime that embodied a rate of return higher than GGT's cost of capital. This issue now has less significance in the context of the Authority's revised estimate of a value under section 8.10(a) which is consistent with capital recovery over and above rates of return implied in the past setting of tariffs.

176. The Authority maintains the views expressed in the Amended Draft Decision that, in respect of the DAC value calculated for the GGP, the methodology applied has the disadvantage of being highly sensitive to these methodological approaches and assumptions. The Authority also maintains that a DAC valuation methodology has the disadvantage that asset redundancy and technological obsolescence are not reflected in the asset value, although the Authority notes that this is unlikely to be a significant issue with the GGP which is a relatively new asset with a growing market for services.
177. The Authority maintains the views expressed in the Amended Draft Decision as to the advantages and disadvantages of a DORC valuation of assets.
178. A DORC valuation methodology has the advantage that tariffs based on that valuation should, in principle, replicate the tariff outcomes of a competitive market. Service Providers in a competitive market would be forced by competitive pressures to value assets on an optimised replacement cost basis and to depreciate those assets at the lowest rate consistent with recovering sufficient revenue for investment in replacement or maintenance of the assets as or when the need arises. Consequently, Service Providers in a competitive market would be setting prices on a similar basis of capital costs. By the same argument, tariffs corresponding to an asset value that is different to the DORC value may return the Service Provider a revenue stream that is greater than or less than that sufficient to maintain provision of Services over the long-term.
179. The principal disadvantage of a DORC valuation methodology is that the actual value of historical investment in pipeline assets is disregarded and, as such, may create risk to the asset owner in the regulatory valuation of assets. This risk may favour the pipeline owner if there is an upwards re-valuation of the asset relative to depreciated historical cost, or may be contrary to the interests of the pipeline owner if there is a downwards re-valuation of the assets relative to depreciated historical cost.
180. With the Authority's re-consideration of DAC and DORC values as described above, it should be noted that there may be little difference between them, with the value determined under section 8.10(a) of the Code being \$484 million at 31 December 1999 and the Authority accepting that estimates of a DORC value may extend to \$500 million at the same date.
181. As indicated in the Amended Draft Decision, the advantages and disadvantages of a Depreciated Replacement Cost methodology for asset valuation contain elements of the advantages and disadvantages of the DAC and DORC methodologies. As a replacement cost is determined on the basis of the as-constructed design of the pipeline, the prospect of a regulatory value determined on this basis presents less risk

to the investors in the pipeline than, for example, a DORC value, as the resultant regulatory asset value would tend to more closely reflect costs incurred by investors in actual construction of the pipeline. Such a reduction in risk may have particular significance for the GGP where the as-constructed design of the pipeline was constrained by statutory requirements under the State Agreement. However, there may still be subjectivity in the estimation of replacement costs as well as risks of windfall gains or losses if the asset valuation differs from the depreciated historical cost of the pipeline.

182. In the Amended Draft Decision, the Authority considered the advantages and disadvantages of a value evident from the sale of pipeline assets, noting that such values may be influenced by a range of factors that are not of relevance to a regulatory value such as, for example, taxation advantages to be gained through an asset purchase and regulatory rates of return being in excess of the purchaser's cost of capital. Consequently, the Authority is of the view that there are considerable disadvantages with adopting a "market value" approach to determining a value for the Initial Capital Base. On reconsideration of values evident from sale prices for the purposes of this Final Decision, the Authority is of the view that available information on prices paid for shares of ownership of the GGP should be given little weight in the process of establishing an appropriate Initial Capital Base.
183. Section 8.10(e) of the Code requires that in establishing the Initial Capital Base for a Pipeline, consideration be given to:

international best practice of Pipelines in comparable situations and the impact on the international competitiveness of energy consuming industries.
184. In the Amended Draft Decision, the Authority took the view that there is not any established or generally accepted "international best practice" in asset valuation. The Authority noted, however, that valuation of the Initial Capital Base of the GGP at a DORC value would be consistent with regulatory precedent in the UK, and a value calculated on the basis of historical cost and past capital recovery consistent with regulatory precedent in the USA.
185. The Authority also indicated in the Amended Draft Decision that as a new regulatory regime in Australia, the Code has not been implemented retrospectively. That is, there has not been any explicit attempt by regulators to determine tariffs (and Initial Capital Base values) in such a manner as to "claw back" past returns to Service Providers above those that might be established under the Code going forward.
186. The Authority maintains these views.
187. The international competitiveness of energy consuming businesses in determination of the Initial Capital Base would generally require giving consideration to lower values, which would correspond to lower tariffs for gas transmission and lower energy costs for gas-consuming industries. This has relevance to the GGP for which the principal market for Services is to businesses involved mining and mineral processing with sale of products in international markets.
188. Section 8.10(f) of the Code requires that in establishing the Initial Capital Base for a Pipeline consideration be given to:

the basis on which tariffs have been (or appear to have been) set in the past, the economic depreciation of the Covered Pipeline, and the historical returns to the Service Provider from the Covered Pipeline.

189. In the Amended Draft Decision, the Authority determined an asset value for the GGP under section 8.10(f) of the Code using the methodology of capital recovery described in the Amended Draft Decision,³⁵ and above in relation to section 8.10(a) of the Code. In doing so, the Authority considered the rates of return implied by the third-party tariffs determined under the State Agreement, and assessed capital recovery taking into account under-recovery and recovery relative to these benchmark rates of return. The value thus derived was \$495 million at 31 December 1999.
190. GGT submits that the Authority erred in calculation of this value and that, properly calculated relative to a benchmark rate of return of 18.81 percent (pre-tax nominal, as set out by GGT in its original proposal of third-party tariffs to the Western Australian State Government), the residual value is \$672 million at 31 December 1999.
191. As described above in relation to use of the capital recovery methodology to determine a value under section 8.10(a) of the Code, GGT submits that the Authority erred in respect of the methodology and assumptions employed in calculation of capital recovery, in particular in regard to calculation in real rather than nominal terms, the assumptions made as to notional revenues from the original owners of the pipeline, capital costs, operating costs and working capital.
192. As already described in relation to section 8.10(a) of the Code, the Authority does not, accept GGT's submission of error in respect of other elements of calculation of capital recovery. The Authority does, however, accept changes to assumptions made in the calculation in respect of capital costs (for linepack gas), operating costs, and working capital in light of further information provided by GGT.
193. With these changes in methodology and assumptions, the value determined under section 8.10(f), and considering only actual capital recovery in the period after commencement of operation of the pipeline, is \$501.5 million at 31 December 1999, which compares with the value of \$495 million indicated in the Amended Draft Decision for the same valuation date.
194. Section 8.10(g) requires that, in establishing the Initial Capital Base for a Pipeline, consideration be given to:

the reasonable expectations of persons under the regulatory regime that applied to the Pipeline prior to the commencement of the Code.
195. In the Amended Draft Decision, the Authority considered section 8.10(g) of the Code from a perspective that the tariff setting provisions in the State Agreement are a "regulatory regime" for the purposes of section 8.10(g). The Authority considered the expectations that persons (including both GGT and Users of the GGP³⁶) may reasonably hold as to the value of pipeline assets in light of the provisions applying to the GGP and, in this context, the Authority examined clause 9 and sub-clause 22(1) of

³⁵ Amended Draft Decision, paragraphs 88 – 99, 137 – 150, Appendix B and Appendix D.

³⁶ Epic Decision, *ibid*, pp559 - 560.

the State Agreement relating to the establishment of the Tariff Setting Principles for the GGP.

196. The Authority took the view that, to the extent that the administration of the State Agreement had effect as a regulatory regime, it could have created expectations that the past approach to the setting of tariffs under that regime would continue. In this respect, any matters relevant under section 8.10(g) point in the same direction as matters under section 8.10(f).
197. The Authority maintains this view and accordingly is of the view that the asset value of \$501.5 million determined by the Authority from a calculation of capital recovery under assumptions reflecting the past determination of tariffs (as set out above in respect of section 8.10(f) of the Code) reflects the reasonable expectations of persons under the State Agreement.
198. Section 8.10(h) of the Code requires that in establishing the Initial Capital Base for a Pipeline consideration be given to:

the impact on the economically efficient use of gas resources.
199. In the Amended Draft Decision, the Authority took the view that section 8.10(h) requires that valuation of the Initial Capital Base be consistent with providing signals to investors that motivate a longer-term efficient level of investment in gas transmission assets, with a consequent effect of engendering efficient development and utilisation of gas resources. The Authority recognised that there is a potential disincentive upon investment of adjusting regulatory values away from values reflecting the historical cost of the pipeline assets. Avoiding this disincentive may necessitate a treatment of past investment in a similar manner as for new capital investment, that is, valuation of the Initial Capital Base on the basis of historical costs.
200. The Authority also recognised that pipeline Services should be priced to reflect the efficient costs of providing the Services, including the cost of capital. The Authority took the view that calculation of historical capital recovery with reference to a rate of return that is in excess of the cost of capital for the pipeline business would result in an asset valuation that does not reflect efficient costs of providing the pipeline Services. This was noted to have occurred with GGT's original calculation of capital recovery, as set out in its submission of 17 December 2002.
201. The Authority took the view in the Amended Draft Decision, and maintains this view, that the rate of return assumed by GGT is a substantial over-estimate of the true cost of capital for the GGP business. Taking the WACC estimated by the Authority for the purposes of this Final Decision (paragraph 255 and following) as a guide, and varying this estimate according to corporate taxation rates and market interest rates in each period from 1994 to 2002, indicates that the cost of capital assumed by GGT for the purposes of modelling capital recovery overestimated the true cost of capital in each year by between four and nine percentage points.
202. A DORC value might be consistent with efficient use of gas resources. A value of the Initial Capital Base substantially in excess of a DORC value may lead to economically inefficient utilisation of gas resources by increasing the delivered cost of gas to economically inefficient levels, and inefficient use of energy sources

generally, due to inefficient fuel mixes being used for electricity generation and other energy requirements of industry.

203. In relation to section 8.10(h) of the Code, GGT has referred to the offering by GGT in September 1999 of the “Economic Development Tariff”, comprising a discounted tariff intended to promote use of the pipeline. From a lack of response to the offered discounted tariff, GGT concluded that the gas transport markets served by the GGP are comparatively price inelastic to the price of gas transmission. GGT appears to suggest that by virtue of this relative price inelasticity, the effect on utilisation of gas resources is not an important consideration in establishing the value of the Initial Capital Base. The Authority did not accept this contention in the Amended Draft Decision, and maintains this view. While the Authority accepts that for a limited range in price of gas transmission, demand for gas transmission and for gas may not be sensitive to changes in prices, the Authority is also of the view that there would be a range in price for gas transmission over which the price may affect the choice of natural gas over alternative fuel types, and affect the efficient utilisation of gas resources. Moreover, demand for transmission at any point in time will be dependent on many factors in addition to the price of gas transmission, including for example, the timing of gas-consuming projects and the existence of sunk investment in utilising other energy sources. The absence of additional demand in any particular period is not seen as evidence that the efficient use of gas resources would be unaffected by prices of gas transmission in excess of the forward-looking efficient costs of Service provision.
204. Section 8.10(i) of the Code requires that in establishing the Initial Capital Base for a Pipeline, consideration be given to the comparability of the cost structure of new Pipelines that may compete with the Pipeline in question (for example, a Pipeline that may by-pass some or all of the Pipeline in question).
205. The Authority is not aware of any evidence to suggest that there may be new pipelines constructed that would compete in full or in part with the GGP.
206. Section 8.10(j) of the Code requires that in establishing the Initial Capital Base for a Pipeline, consideration be given to the price paid for any asset recently purchased by the Service Provider and the circumstances of that purchase.
207. The Authority accepts that it would be appropriate to consider under this section an imputed price paid for the GGP by the current owners, as has already been considered as an alternative valuation methodology under section 8.10(c) of the Code (paragraphs 162 to 171).
208. Section 8.10(k) of the Code requires that in establishing the Initial Capital Base for a Pipeline, consideration be given to any other factors that the Relevant Regulator considers relevant.
209. The Authority maintains the view expressed in the Amended Draft Decision that a further factor that may be relevant to establishing the Initial Capital Base for the GGP is the value of capital recovery by GGT that has occurred since 31 December 1999. Using the same capital recovery methodology as used to examine possible asset values for the GGP under sections 8.10(a) and 8.10(f) of the Code, the Authority has

determined that there has been a substantial amount of capital recovery subsequent to 31 December 1999 to 31 December 2004.

210. The Authority's re-consideration of the factors of section 8.10 of the Code identifies the following valuations of the GGP assets as relevant and needing to be given weight in determination of the Initial Capital Base.

Asset values considered by the Authority in relation to the factors of section 8.10 of the Code

Valuation Methodology	Valuation Date	Valuation
Depreciated Actual Cost (DAC) determined in accordance with the requirements of section 8.10(a) of the Code.	31 Dec 1999	\$484 million
Depreciated Optimised Replacement Cost (DORC) determined in accordance with the requirements of section 8.10(b) of the Code.	31 Dec 1999	Up to approximately \$500 million
Depreciated Replacement Cost determined in accordance with the requirements of section 8.10(c) of the Code.	31 Dec 1999	\$540 million
Value reflecting the basis on which tariffs have been set in the past and the historical returns to the Service Provider, determined in accordance with the requirements of sections 8.10(f) and 8.10(g) of the Code.	31 Dec 1999	\$502 million

211. Section 8.11 of the Code provides 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 of values determined under paragraphs (a) and (b) of section 8.10.
212. Determination of whether there are any circumstances in valuation of the Initial Capital Base for a pipeline that are "abnormal" in the sense that they may justify valuation outside of the range contemplated by section 8.11 is a matter requiring the exercise of judgement and discretion by the Authority.³⁷
213. In the Amended Draft Decision the Authority considered that a matter of particular relevance in determination of the Initial Capital Base for the GGP is the past administration of the State Agreement in respect of the determination of third-party tariffs. The Authority determined that, while the third-party tariffs established for the GGP have embodied a rate or return that is substantially in excess of the likely cost of capital for the GGP, a number of factors examined in respect of section 8.10 of the Code point to reasons why these benefits should not be "taken away" in valuation of the Initial Capital Base. In the Amended Draft Decision, the Authority determined that the value of unrecovered investment in the pipeline of \$495 million at

³⁷ Epic Decision, *ibid.*, p534.

31 December 1999 and calculated under section 8.10(f) of the Code, and in recognition of the past setting of tariffs and the Tariff Setting Principles established under the State Agreement, is greater than the values of DAC and DORC (\$434 million and \$407 million respectively). Accordingly, the Authority was of the view that valuation of the Initial Capital Base in the range of DAC and DORC (as determined for the purposes of the Amended Draft Decision) would create a risk to the owners of the GGP that they would be deprived of benefits legitimately and lawfully gained under the previous regulatory regime, and that a public interest in avoidance of this risk is cause to consider the circumstances of the GGP to be abnormal in the context of section 8.11.

214. In its reconsideration of the factors of section 8.10 of the Code for the purposes of this Final Decision, the Authority has determined different values of the GGP in respect of a DAC value, DORC value and a value of unrecovered investment under sections 8.10(a), (b) and (f) of the Code, respectively (paragraph 210, above). The revised value of unrecovered investment determined in recognition of matters under section 8.10(f), and taking into account additional information submitted by GGT subsequent to the Amended Draft Decision, is close to the value of approximately \$500 million that the Authority accepts as a reasonable estimate of a DORC value.
215. Section 8.1 of the Code sets out the objectives for a Reference Tariff and Reference Tariff Policy in an Access Arrangement. The Authority must seek to achieve these objectives in the establishment of the Initial Capital Base for a pipeline. Consequently, the objectives of section 8.1 guide the Authority in the exercise of its discretion in balancing the factors considered under section 8.10.³⁸ Where the objectives of section 8.1 conflict in their application, the factors set out in section 2.24(a) to (g) of the Code guide the Authority in determining “the manner in which they can best be reconciled or which of them should prevail”.³⁹
216. The Authority maintains the view expressed in the Amended Draft Decision that, in setting a value for the Initial Capital Base, some of the objectives of section 8.1 of the Code would be best met by a value close to DAC and others by a value close to DORC, with these objectives implying a range of possible values for the Initial Capital Base from \$484 million to up to about \$500 million (at 31 December 1999).
217. The Authority also maintains the view expressed in the Amended Draft Decision that substantial weight should be given to a value determined in recognition of past regulation of tariffs under the State Agreement. This view arises from a consideration of the factors of section 2.24 of the Code, in particular the legitimate business interests of the Service Provider (under section 2.24(a)) and elements of the public interest (under section 2.24(e)).
218. There are two matters of relevance to a consideration of the legitimate business interests of GGT in the context of the Initial Capital Base for the GGP.
219. Firstly, and as already noted above, the as-constructed design of the GGP was constrained under the State Agreement and, thus, possibly limited the ability of the

³⁸ Epic Decision, *ibid*, pp 534, 536.

³⁹ Epic Decision, *ibid*, pp 536 – 537.

original owners to build the pipeline to a design appropriate for the market for gas as it then existed, and to minimise the cost of pipeline construction. GGT submits that both the previous and current owners of the GGP accepted the risk of building an “oversized” pipeline because of the perception that this risk was minimised by the provisions of the State Agreement that provided for capital recovery. Consideration of the legitimate business interests of GGT in this context would tend to support a value of the Initial Capital Base that is consistent with providing GGT with the opportunity to recover the value of capital investment in the pipeline. This consideration supports a value of the Initial Capital Base close to the value of \$484 million determined under section 8.10(a) of the Code at 31 December 1999.

220. The second principal matter of relevance in relation to the legitimate business interests of GGT is the past history of tariff setting for the GGP under the State Agreement, and the past administration of that regime, which has provided for tariffs that imply a rate of return to GGT substantially in excess of a reasonable estimate of the cost of capital for the GGP. GGT has legitimately – in the sense of lawfully – been able to charge those tariffs to third-party Users of the GGP. Consideration of legitimate business interests of GGT in this respect is cause for weight to be given to a value of the Initial Capital Base that is consistent with GGT retaining the benefits gained by the charging of those tariffs. The value of the Initial Capital Base that would fully reflect this interest is that of \$502 million at 31 December 1999.
221. Under sections 2.24(e) of the Code, the Authority is required to take into account the public interest, including the public interest in having competition in markets.
222. The concept of the public interest in section 2.24(e) of the Code reflects the objective of the promotion of a competitive market but also has regard to wider considerations which may include “the protection of the interests of the owners of pipelines and the assurance of fair and reasonable conditions being provided where their private rights are overborne by the statutory scheme ...”.⁴⁰
223. The Authority maintains the view taken in the Amended Draft Decision that there are two elements of the public interest that have relevance to consideration of the Initial Capital Base for the GGP. The first is the public interest in having prices for gas – which include a component that is the price of gas transmission – that reflect the efficient provision of gas transmission Services and the recovery of only efficient costs. This element of the public interest would cause the Authority to give weight to possible values of the Initial Capital Base that are closer to the DORC value, or lower values that would reflect estimates of past capital recovery based on reasonable estimates of the cost of capital for the GGP, that is, values in the range \$484 million to about \$500 million at 31 December 1999.
224. A second element of the public interest is one of avoiding a perception of risk in the introduction and implementation of new regulatory regimes, that a regime (in this case the Code) may be applied in such a manner as to take away from the owners of the regulated business the benefits lawfully gained under a previous regulatory regime (in this case the third-party access provisions of the State Agreement), contrary to the legitimate business interests of the owners. In the Amended Draft Decision, the

⁴⁰ Epic Decision, *ibid*, p 551.

Authority referred to this risk as “sovereign risk”. A number of submissions made to the Authority subsequent to the Amended Draft Decision have taken issue with this concept of sovereign risk, arguing that it is inconsistent with concepts of sovereign risk applied elsewhere. The Authority accepts the view that the term sovereign risk is open to a range of interpretations, but stresses that the meaning given to the term in the Amended Draft Decision⁴¹ is that of a risk that may occur where a government supplants one regulatory regime with another, and a regulator making a decision under the new regulatory regime in such a manner as to “claw back” benefits lawfully gained under the prior regime.

225. In this regard, the Authority recognises that the administration of third-party access regulation for the GGP established under the State Agreement has resulted in gas transmission tariffs that are in excess of levels necessary for the recovery of costs. However, the Authority also considers that there is a public interest in not seeking to “undo” the past determination of tariffs under the State Agreement as this could potentially create a perception of sovereign risk (within the meaning given to this term in paragraphs 104 and 224) in dealings with the Government of Western Australia, and adversely affect future business activity and investment. Consideration of the public interest in this respect would coincide with the legitimate business interests of GGT, and the interests of GGT’s owners, in retaining the past benefits gained by charging of the tariffs determined under the State Agreement and which remain in place until the commencement of an Access Arrangement. As noted above, after further consideration for the purposes of this Final Decision the Authority is of the view that the value of the Initial Capital Base that would fully reflect this interest is \$502 million at 31 December 1999.
226. These considerations of the legitimate business interests of the owners of the GGP and the public interest, as factors under section 2.24(a) and 2.24(e) respectively, weigh against the considerations under section 2.24(f) of the Code that requires that the Authority take into account the interests of Users and Prospective Users. The interests of Users and Prospective Users align with meeting the objectives of section 8.1 in valuing the Initial Capital Base at close to the values determined under sections 8.10(a) or 8.10(b) of the Code.
227. The value of the Initial Capital Base of the GGP that would recognise past regulation of tariffs under the State Agreement has been determined by the Authority, after reconsideration for the purposes of this Final Decision, as \$502 million at 31 December 1999. Taking this value into account along with the DAC and DORC values determined under sections 8.10(a) and (b), the Authority considers that the value of the Initial Capital Base should be \$500 million at 31 December 1999, including a value of linepack and working capital of \$2.58 million.

Working Capital

228. In its original submitted Access Arrangement Information, GGT indicated that the determination of Total Revenue included a return on an allowance for working capital of \$2.6 million.

⁴¹ Amended Draft Decision, paragraph 179.

229. The Code provides no explicit guidance as to whether a specific allowance for working capital should be made in the determination of Total Revenue. In providing objectives, principles and guidelines for the determination of Reference Tariffs, section 8 of the Code does not explicitly refer to costs arising from the working capital requirements of a Service Provider. However, as the requirement for working capital arises from consideration of timing of cash flows, section 8.4 of the Code may be relevant. Section 8.4 provides for the Total Revenue calculated for a gas pipeline to include a rate of return on the capital assets that form part of the pipeline. To the extent that an amount of working capital comprises a necessary part of the capital assets of a pipeline business, a return on working capital may fall within this component of Total Revenue. Section 8.4 also provides that the Total Revenue should be calculated in accordance with ‘generally accepted industry practice’. This may include consideration of timing issues in respect of the Service Provider incurring costs and receiving revenues.
230. In the amended Draft Decision, the Authority allowed provision in the determination of Total Revenue for working capital to the value of \$1.3 million, based on historical values of working capital provided by GGT for the period to December 1999.
231. For its revised Access Arrangement and in submissions made to the Authority in connection with the revised Access Arrangement, GGT has made revisions to the value of working capital, with a value of working capital determined on a quarterly basis as the value of between 43 and 50 days of average daily New Facilities Investment and Non Capital Costs in each quarter, corresponding to values of working capital of between \$1.6 million and \$5.3 million.
232. The Authority notes that decisions by the ACCC, Essential Services Commission (Victoria) and most recently the ICRC (ACT) have declined to allow a return on working capital as a component of Total Revenue.⁴² On the other hand, IPART (NSW)⁴³ and previously the Relevant Regulator in WA have allowed a return on working capital.
233. The Authority recognises that the billing cycle and cash management policies of a Service Provider will impact on the need for working capital. The Authority also notes that:
- a Service Provider may require working capital to fund periodic shortfalls in incoming revenue streams over out-going costs;
 - working capital may also be required to fund working stock, i.e. linepack, parts and inventories etc.; and

⁴² ACCC, September 2002, EAPL’s application to the NCC for partial revocation of coverage of the Moomba to Sydney Pipeline System, p 10; ORG, September 2001, 2003 Review of Gas Access Arrangements – Position Paper, p 47; ICRC, October 2004, Final Decision, Review of Access Arrangement for ActewAGL Natural Gas System in ACT, Queanbeyan and Yarrowlumla, p 74.

⁴³ IPART, Draft Decision, Revised Access Arrangement for AGL Gas Network, December 2004, pp 96-97.

- the cost to the Service Provider of funds employed as working capital is no different to the cost of funds it uses to invest in the capital assets that form a tangible part of the Covered Pipeline.
234. The Authority accepts, in principle, that an allowance for working capital should be included in the Capital Base upon which a return may be earned through the Reference Tariffs, but working capital should not be subject to depreciation.
235. The Authority has assessed the quarterly values of working capital proposed by GGT by considering payment and receipt cycles for GGT based on assumptions applied in the Authority's recent Draft Decision on proposed revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems,⁴⁴ in particular:
- an assumed period for receipt of revenues of 20 days; and
 - an assumed period for payment of capital and operating costs of 20 days.

The values thus derived by the Authority are close to those proposed by GGT and as such the Authority accepts as appropriate the methodology used by GGT in determining a value of working capital.

236. Notwithstanding the Authority's acceptance of the methodology used by GGT in determining the value of working capital,, the Authority has revised the value of working capital in accordance with revisions required by the Authority to values of New Facilities Investment and Non Capital Costs taken into account in determination of the Reference Tariff (paragraph 237 and following and paragraph 322 and following, respectively, of this Final Decision). In doing so, the Authority has determined the value of working capital as the value of 45 days of average daily New Facilities Investment and Non Capital Costs in each quarterly period, broadly consistent with the methodology applied by GGT.

New Facilities Investment

237. Sections 8.15 to 8.21 of the Code provide for capital costs incurred in New Facilities Investment to be included in the Capital Base of a Covered Pipeline, and for capital costs that are forecast for an Access Arrangement Period to be considered in determination of Reference Tariffs for that Access Arrangement Period.
238. 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) Subject to sections 8.16(b) and sections 8.20 to 8.22, the Capital Base may be increased under section 8.15 by the amount of the actual New Facilities Investment in the immediately preceding Access Arrangement Period provided that:

⁴⁴ Economic Regulation Authority, 28 February 2005, Draft Decision on the Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution Systems, paragraphs 271 to 284.

- i. that amount 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 providing Services; and
 - ii. one of the following conditions is satisfied:
 - A. the Anticipated Incremental Revenue generated by the New Facility exceeds the New Facilities Investment; or
 - B. the Service Provider and/or Users satisfy the Relevant Regulator that the New Facility has system-wide benefits that, in the Relevant Regulator's opinion, justify the approval of a higher Reference Tariff for all Users; or
 - C. the New Facility is necessary to maintain the safety, integrity or Contracted Capacity of Services.
 - (b) If pursuant to section 8.20 the Relevant Regulator agrees to Reference Tariffs being determined on the basis of forecast New Facilities Investment, the Capital Base may be increased by the amount of the New Facilities Investment forecast to occur within the new Access Arrangement Period determined in accordance with sections 8.20 and 8.21 and subject to adjustment in accordance with 8.22.
- 239. Section 8.17 of the Code sets out two factors that the Authority 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.
- 240. 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 that 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 are met. Section 8.19 also sets out the manner in which the value of the Speculative Investment Fund is determined at any time.
- 241. 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 of 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 Authority 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 at any other time if asked to do so by the Service Provider.
- 242. Section 8.22 of the Code requires that either the Reference Tariff Policy should describe, or the Authority 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 how the Capital Base at the commencement of the next Access Arrangement Period will be adjusted if the actual New Facilities Investment or Recoverable Portion (whichever is relevant) is

different from the forecast New Facilities Investment (with this decision to be designed to best meet the objectives in section 8.1).

243. Sections 8.23 to 8.26 of the Code set out provisions for New Facilities Investment to be financed in whole or in part by Capital Contributions from Users, or from surcharges over and above Reference Tariffs to be charged to Users.
244. While GGT provided forecasts of New Facilities Investment in the Access Arrangement Information submitted with the proposed Access Arrangement, for the purposes of the Amended Draft Decision, the Authority considered data subsequently provided by GGT on actual and forecast New Facilities Investment to 31 December 2009, indicated as follows.

**Goldfields Gas Pipeline actual and forecast New Facilities Investment
(information provided March 2004, nominal \$million)**

Calendar Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual Expenditure					Forecast Expenditure					
Actual and Forecast Expenditure	3.64	8.39	1.12	10.21	5.87	1.25	1.31	1.38	1.45	1.52

245. GGT provided the Authority with only limited information on the elements of the New Facilities Investment. This information indicated significant expenditure on compressor stations in 2000/2001 and 2003/2004, but provided no justification for construction of the compressor station nor provided justification for other elements of New Facilities Investment.⁴⁵ The forecast of New Facilities Investment itself suggested that forecasts for each of the years 2006 to 2009 were derived by increasing the forecast of the previous year by 5 percent rather than by explicit consideration of requirements for capital expenditures. GGT has not provided the Authority with information to justify actual expenditures or explain the derivation of forecasts.
246. In the Amended Draft Decision, the Authority took the view that GGT has not provided sufficient information on actual and forecast New Facilities Investment to enable the Authority to form a definitive view as to whether the expenditure would meet the requirements of section 8.16 of the Code. However, notwithstanding the inadequacy of the information provided by GGT, the Authority took account of the fact that the two compressor stations had been installed on the GGP in accordance with the actual and forecast capital expenditure of 2000 to 2004. The Authority was also mindful that the actual and forecast New Facilities Investment, other than in relation to compressor stations, was of a relatively small value that is not inconsistent with expectations of capital expenditure of a “maintenance” nature for a pipeline such as the GGP. As such, the Authority took the view that the actual and forecast New Facilities Investment for the period 2000 to 2009 may reasonably be expected to meet the requirements of section 8.16, and may thus be taken into account in determination of the Reference Tariff for the Access Arrangement Period. No amendments to the

⁴⁵ Indicated values of expenditure on compressor stations are indicated in the Confidential Annexure to the Amended Draft Decision.

proposed Access Arrangement were therefore sought in respect of the forecast of New Facilities Investment.

247. The Authority noted, however, that GGT will need to provide further information before the Authority can make a determination allowing the New Facilities Investment to be added to the Capital Base of the GGP at the commencement of the next Access Arrangement Period, as required under sections 8.16 and 8.17 of the Code.
248. GGT did not provide a revised Access Arrangement Information with the revised Access Arrangement. GGT has, however, indicated in a submission that the following forecast of New Facilities Investment was used in the determination of a revised Reference Tariff.

**Goldfields Gas Pipeline actual and forecast New Facilities Investment
(Information provided November 2004, nominal \$million)**

Calendar Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual Expenditure						Forecast Expenditure				
Compressor Stations	2.906	8.066	0.649	9.801	4.072	0.292	2.750	2.750	0.000	0.000
SCADA and Communication	0.028	0.005	0.056	0.069	0.440	0.040	0.000	0.000	0.000	0.000
Other Assets ⁴⁶	0.710	0.319	0.414	0.268	1.627	2.315	1.536	1.364	1.401	1.439
Total	3.644	8.391	1.119	10.138	6.139	2.647	4.286	4.114	1.401	1.439

249. The actual New Facilities Investment for 2004 and forecast New Facilities Investment for 2005 and 2006 provided by GGT in November 2004 are substantially different to the forecasts provided in March 2004. Total forecast expenditure for the period 2005 to 2009 is greater by an amount of \$7.0 million. GGT has indicated that the additional expenditure in 2006 and 2007 is largely accounted for by installation of a second compressor station at Paraburdoo at an estimated cost of \$5.5 million in 2006/07. No explanation is provided for the remaining \$1.5 million difference between the forecast of New Facilities Investment provided by GGT in March 2004 and that provided in November 2004.
250. GGT's revisions to forecast New Facilities Investment have not been made in accordance with a requirement for amendment of the proposed Access Arrangement nor to address reasons for a required amendment.
251. Taking into account that the Authority has determined not to approve the revised Access Arrangement, the Authority has considered whether to incorporate the revised forecasts in the determination of Reference Tariffs that will be required for the Access Arrangement Period.

⁴⁶ GGT indicates in its submission of 25 November 2004 that post-2005, capital expenditure is broken down into categories of "compression" and "other assets" and hence no costs are explicitly identified for the "SCADA" cost category.

252. As noted above, the forecast of New Facilities Investment submitted by GGT in November and December 2004 are higher by an amount of \$7.0 million for the period 2005 to 2009 than in the forecast provided by GGT in March 2004. As also noted above, \$5.83 million is indicated to comprise costs of compression and SCADA, but the remaining amount is unexplained. In the absence of full justification for the revisions to forecasts, the Authority is not able to be satisfied that the revisions to the forecasts are consistent with the requirements of section 8.16 of the Code. The Authority therefore does not accept the revision to forecasts other than that indicated to be for compression and SCADA.
253. The Authority is prepared to include in the forecast of New Facilities Investment amounts included by GGT in revised forecasts of Non Capital Costs and relating to SCADA system upgrades, information technology upgrades, management system upgrades and solar battery replacement. The Authority considered these costs in relation to GGT's forecast Non Capital Costs and considers, on the basis of information provided by GGT, that these costs may be more appropriately treated as of a capital nature.
254. The Authority has therefore re-determined the New Facilities Investment that is to be recognised in the determination of Reference Tariff as follows.

Actual and re-determined forecast New Facilities Investment (nominal \$million)

Calendar Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual Expenditure						Forecast Expenditure				
Actual Values Submitted by GGT (Nov 2004)	3.64	8.39	1.12	10.14	6.14					
Forecast Values Submitted by GGT (March 2004)						1.25	1.31	1.38	1.45	1.52
Additional Compression and SCADA						0.33	2.75	2.75		
Amounts transferred from Non Capital Costs							1.20	1.30	0.16	0.20
New Facilities Investment to be considered in the Reference Tariff	3.64	8.39	1.12	10.14	6.14	1.58	5.26	5.43	1.61	1.72

Rate of Return

255. Sections 8.30 and 8.31 of the Code state the principles for establishing the Rate of Return used in determining a Reference Tariff:

8.30 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).

8.31 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 Relevant Regulator is satisfied that to do so would be consistent with the objectives contained in section 8.1.

256. For its proposed Access Arrangement of 15 December 1999, GGT used a net present value approach to determining Total Revenue. The Rate of Return used as the discount rate in the net present value calculations was a WACC derived by GGT, as described in section 7.4 of the Access Arrangement Information.

257. The WACC proposed by GGT was a real pre-tax WACC of 12.2 percent. The Capital Asset Pricing Model (“CAPM”) was used to estimate the after-tax WACC, which was then converted to a pre-tax real WACC using the “forward transformation” method. The values of CAPM parameters and cost of debt assumed by GGT in estimating this WACC are set out in the following table.

Parameters Used by GGT to Calculate the WACC for the GGP (December 1999)

Parameter	Parameter Value
Inflation Rate	2.5%
Debt to Asset Ratio (Gearing)	50%
Debt Margin	2.25%
Nominal Pre-Tax Cost of Debt	8.95%
Nominal Risk Free Rate	6.7%
Australian Market Risk Premium	6.5%
Beta (equity)	1.4
Dividend Imputation Factor: Value of Franking Credits	30%
Company Tax Rate	36%

258. WACC values estimated from the values of CAPM parameters and cost of debt assumed by GGT are as follows.

WACC Values Calculated From GGT’s Assumed CAPM Parameters (December 1999)

	Nominal	Real
Post-Tax (Officer) WACC	9.6%	7.0%
Pre-Tax WACC (Forward Transformation)	15.0%	12.2%
Post-Tax Return on Equity	15.8%	13.0%
Pre-Tax Return on Equity	21.1%	18.2%

259. In its submission of 17 December 2002, GGT proposed a different Rate of Return for the determination of Total Revenue. In this submission, GGT proposed that the cost of equity for the GGP not be estimated using the CAPM but rather derived from a proposal of a rate of return made to the Western Australian Government prior to commencement of construction of the GGP. GGT submitted that a nominal post-tax return on equity of 17.45 percent assumed in the initial determination of third-party tariffs was a “fundamental element of the original arrangement with the State” and to alter the return on equity would be contrary to the legitimate business interests of the GGP owners.
260. In the submission of 17 December 2002, GGT also (implicitly) proposed a nominal return on debt of 7.475 percent, being the sum of an assumed risk-free rate of 5.9 percent and debt margin of 1.575 percent, and a nominal pre-tax WACC of 16.2 percent based on other assumptions as follows.

**Proposed CAPM parameter values for estimation of the rate of return
for the period 2000 to 2004 (December 2002)**

Parameter	Value used by GGT
Risk free rate (nominal)	5.90%
Cost of debt margin	1.575%
Corporate tax rate	30%
Franking credit value	0%
Debt to total assets ratio	50%
Equity to total assets ratio	50%
Expected inflation	2.5%

261. As an initial matter in relation to the proposed Rate of Return, the Authority considered in the Amended Draft Decision whether it is possible under the Code to accept GGT’s contentions in respect of the Rate of Return, as set out in GGT’s submission of 17 December 2002.
262. The Authority took the view that the effect of section 8.2(e), 8.30 and 8.31 of the Code is that the Rate of Return is required to be the best estimate of the cost of capital for the GGP business, forecast for the Access Arrangement Period. The Rate of Return used in historical determinations of third-party tariffs under the State Agreement (as submitted by GGT) could only be relevant for the purposes of the Code if those historical determinations provide useful evidence in calculating the cost of capital for the Access Arrangement Period. Rates of Return implied by third-party tariffs determined under the State Agreement are relevant in assessing the Rate of Return for determination of the Reference Tariff to the limited extent that they provide some evidence of the cost of capital associated with the project over the Access Arrangement Period. However, the task for the Authority is not to determine whether to continue Rates of Return that have been used in the past. Rather, the task is to determine whether the Rate of Return underlying the Reference Tariff proposed in the Access Arrangement submitted by GGT conforms to the Code.

263. For the purposes of the Amended Draft Decision, the Authority therefore considered the Rate of Return proposed by GGT for the proposed Access Arrangement as originally submitted.
264. The Authority took the view in the Amended Draft Decision that the Rate of Return proposed by GGT for the GGP does not meet the requirements of the Code as the best estimate of the cost of capital for the GGP over the Access Arrangement Period. The reasons of the Authority in coming to this view are set out in the Amended Draft Decision⁴⁷ and related to assumptions made by GGT in application of the CAPM, summarised as follows.
- The methodologies used by GGT for determination of the risk-free rate of return are not consistent with the requirements of the Code for determining the best estimate of the cost of capital.
 - The value of the market risk premium assumed by GGT is inconsistent with available empirical evidence.
 - GGT's estimate of the equity beta value of the GGP business lacks empirical support by reference to observed beta values for comparable businesses, and is inconsistent with the principles of the CAPM model in including a margin for non-systematic risks of the GGP business.
 - The cost of debt assumed by GGT, and in particular the assumed value of the debt margin over a risk-free rate, is inconsistent with observed costs of debt for comparable businesses.
 - The level of gearing assumed by GGT for the GGP business is not consistent with a reasonable benchmark assumption for the financial structure of a gas pipeline business.
 - The value of franking credits assumed by GGT is inconsistent with empirical evidence on the value of franking credits in the Australian capital market.
265. A comparison of the parameter values used in calculation of the Rate of Return that were proposed by GGT and those considered appropriate by the Authority in its Amended Draft Decision are set out in the table below.

⁴⁷ Paragraphs 264 to 325.

Amended Draft Decision: Proposed and revised CAPM parameter values for estimation of the Rate of Return

Parameter	Value proposed by GGT (December 1999)	Value submitted by GGT (December 2002)	Value considered appropriate by the Authority
Risk free rate (nominal)	6.7%	5.90%	5.89%
Market risk premium	6.5%	n.a.	6.0%
Equity beta	1.4	n.a.	1.33
Cost of debt margin	2.25%	1.575%	1.2%
Corporate tax rate	36%	30%	31.2%, 30.7%*
Franking credit value	0%	0%	50%
Debt to total assets ratio	50%	50%	60%
Equity to total assets ratio	50%	50%	40%
Expected inflation	2.5%	2.5%	2.61%

* Average taxation rates for the six year period 2000 – 2005 and the ten year period 2000 – 2009, respectively

266. The returns to equity considered by the Authority to be consistent with the Code were as follows.

Amended Draft Decision: Returns on equity derived from revised CAPM parameter values

Returns on Equity	Nominal	Real
Post-Tax	13.84%	10.95%
Pre-tax	16.39%, 16.35%*	13.44%, 13.39%*

* Values for the six year period 2000 – 2005 and the ten year period 2000 – 2009, respectively

267. The WACC values determined by the Authority to be consistent with the Code were as follows.

Amended Draft Decision: Revised WACC

Estimated WACC	Nominal	Real
Post-Tax (Officer)	7.44%, 7.48%*	4.71%, 4.75%*
Pre-tax (forward transformation of Officer WACC)	10.81%, 10.79%*	8.00%, 7.98%*

* Values for the six year period 2000 – 2005 and the ten year period 2000 – 2009, respectively

268. The Authority accordingly required amendment of the proposed Access Arrangement such that the Reference Tariff is revised to reflect, *inter alia*, a nominal pre-tax Rate of Return of 10.81 percent.
269. GGT has not revised the proposed Access Arrangement to incorporate this required amendment. GGT instead submits that the Authority erred in the Amended Draft Decision in its reasoning on the Rate of Return, in particular that:

- the Authority erred by not giving consideration to the Rate of Return proposed to the State Government prior to construction of the GGP and for the purposes of setting third-party tariffs; and
 - even if the Code is interpreted in such a way that the Rate of Return must be determined without recognition of the past Rate of Return proposed to the State Government, the Authority erred by not having regard to a possible range of outcomes for the proposed Rate of Return and accepting the Rate of Return proposed by GGT if it falls within that range.
270. Subsequent to the Amended Draft Decision, GGT has made multiple and inconsistent submissions in respect of the Rate of Return and values of parameters of the CAPM. In its submission of 23 November 2004 and in support of the Reference Tariff set out in the revised Access Arrangement,⁴⁸ GGT submitted that the pre-tax nominal Rate of Return used in the determination of Reference Tariffs should not be less than 13.5 percent, a value calculated using the CAPM with the following values for key parameters:
- market risk premium – 7.6 percent
 - capital structure – 50 percent debt; 50 percent equity
 - value of imputation credits (*gamma*) – zero percent; and
 - equity beta – 1.1035.
271. In its submission of 19 January 2005,⁴⁹ GGT proposed that the equity beta value should be 2.47, based on an examination of beta values for its customers.
272. The Authority has considered the claims of error made by GGT. The Authority’s findings on these claims are as follows.
273. Firstly, GGT claims that the Authority erred by not giving consideration to the Rate of Return proposed to the State Government prior to construction of the GGP and for the purposes of setting third-party tariffs.
274. In support of this claim GGT submits that the relevant “risk” to be considered in relation to the Rate of Return is that risk evaluated at the time that investment funds are initially committed to the project. GGT thus submits that a cost of capital assessed at the time that investment funds are initially committed to the project, and which is commensurate with the envisaged risk for the project over the life of the project, is the relevant cost of capital to consider at any time in the project life at which the Rate of Return is being determined. The Rate of Return “should only be re-determined when costs and revenues have diverged in a manner that could not be anticipated at the time of project initiation...”. According to GGT, “[n]o unanticipated cost or revenue ‘shocks’ of the kind referred to ... have occurred during

⁴⁸ Goldfields Gas Transmission, 23 November 2004, Supplementary Submission Regarding Amended Draft Decision, p 35.

⁴⁹ Goldfields Gas Transmission, 4 January 2005, Calculation of Beta for GGP.

the relevant period such as to warrant any adjustment in the originally established rate of return.”

275. GGT thus submitted:⁵⁰

There are sound legal and economic arguments for continuing to allow, as the rate of return to be used for determining the GGP reference tariff, the pre-tax nominal rate of return embodied in the approved proposals under the State Agreement (namely 18.81%). Sections 8.30 and 8.31 of the Code do not prevent the Authority from accepting that rate of return.

276. The Authority does not accept GGT’s submission that the rate of return proposed by GGT to the Western Australian Government prior to the commencement of construction should be established as the Rate of Return used to determine Reference Tariffs under the Code. Rather, the Authority notes that section 8.30 of the Code requires that the Rate of Return should be “commensurate with *prevailing conditions* in the market for funds and the risk involved in delivering the Reference Service”.⁵¹ The Authority is therefore of the view that it is the currently prevailing returns on funds in capital markets that are to be considered in determining whether the approach adopted for the proposed Access Arrangement in relation to the Rate of Return complies with the Code.

277. The Authority is reinforced in this view by the scheme of the Code in relation to the determination of the Initial Capital Base. The Code requires that the historical circumstances in relation to the investment be taken into account in determining an appropriate value for the Initial Capital Base. The Authority has, to the extent that it is relevant, incorporated consideration of the rate of return applying to the GGP prior to the commencement of the Code in the Authority’s determination on the Initial Capital Base.

278. Secondly, GGT claims that the Authority erred by not having regard to a possible range of outcomes for the proposed Rate of Return and accepting the Rate of Return proposed by GGT if it falls within that range. In support of this claim, GGT cites the decision of the Australian Competition Tribunal (“**Tribunal**”) in *Re: GasNet Australia (Operations) Pty Ltd* [2003] A CompT6 (“**Re GasNet**”). GGT submits that:⁵²

In its decision in [*Re*] *GasNet*, the Tribunal:

- (a) reiterated the finding of the Full Court of the Supreme Court of Western Australia in *Epic Energy* that there was no single correct figure for each of the parameter values which must be determined for the purpose of developing a reference tariff, and noted that issues of degree and judgement were involved which may lead to tensions which should be resolved by reference to the statutory objectives;
- (b) identified the task of the regulator as being one of assessing whether the service provider’s treatment of rate of return was consistent with the provisions of sections 8.30 and 8.31 of the Code, and assessing whether the service provider’s rate of return falls within the range of rates commensurate with prevailing market conditions and the relevant risk;

⁵⁰ Goldfields Gas Transmission, 23 November 2004, Supplementary Submission Regarding Amended Draft Decision, p 38.

⁵¹ Emphasis added.

⁵² GGT Supplementary Submission Regarding Amended Draft Decision, 23 November 2004, pp 36, 37.

- (c) indicated that choice of the method by which the rate of return was determined was a matter for the service provider;
 - (d) limited the regulator to ensuring that the service provider applied its chosen method in a way which was consistent with the conventional use of that method; and
 - (e) acknowledged that, where the service provider's method required use of the capital asset pricing model ("CAPM"), there was flexibility in the choice of inputs, but insisted that this did not preclude remaining true to the mathematical logic underlying the model.
279. GGT commissioned a study by KPMG to examine an upper limit for a Rate of Return for the GGP which KPMG determined to be 13.7 percent (pre-tax nominal).⁵³ GGT submits that as the Rate of Return of 13.5 percent used in its determination of Reference Tariffs in the revised Access Arrangement is less than this value, it is "within the range of allowable returns for the GGP".
280. The Authority has considered GGT's submission that the Authority is obliged to accept a Rate of Return proposed by GGT if the proposed value is within a possible range for the Rate of Return, taking into account the determination of the Australian Competition Tribunal in *Re GasNet*.
281. In *Re GasNet*, the Tribunal found that in respect of a case where the Australian Competition and Consumer Commission had refused to approve a proposed Access Arrangement because of the approach that had been adopted by the Service Provider in relation to the Rate of Return that:⁵⁴
- ... there is no single correct figure involved in determining the values of the parameters to be applied in developing an applicable Reference Tariff. The application of the Reference Tariff Principles involves issues of judgement and degree. Different minds, acting reasonably, can be expected to make different choices within a range of possible choices which nonetheless remain consistent with the Reference Tariff Principles. Where the Reference Tariff Principles produce tension, the Relevant Regulator has an overriding discretion to resolve the tensions in a way which best reflects the statutory objectives of the Law. However, where there are no conflicts or tensions in the application of the Reference Tariff Principles, and where the [Access Arrangement] ... proposed by the Service Provider falls within the range of choice reasonably open and consistent with the Reference Tariff Principles, it is beyond the power of the Relevant Regulator not to approve the proposed [Access Arrangement] ... simply because it prefers a different [Access Arrangement] ... which it believes would better achieve the Relevant Regulator's understanding of the statutory objectives of the Law.
282. The Authority accepts that its task is to consider whether the Rate of Return used for the derivation of Reference Tariffs in the revised Access Arrangement falls within the range of rates commensurate with the prevailing market conditions and the relevant risk. This Rate of Return will comply with the Code if the value used is within the range of values that different minds acting reasonably might attribute to the Rate of Return, applying the methodology of the CAPM that was chosen by GGT. In undertaking this task, the Authority has given consideration to the range of values within which the Rate of Return might be supported by reasonable minds as being commensurate with prevailing conditions in capital markets. The Authority then considered whether the value proposed by GGT for the Rate of Return for the revised Access Arrangement falls within that range.

⁵³ KPMG, November 2004, Goldfields Gas Transmission Pty Ltd: Weighted Average Cost of Capital.

⁵⁴ *Re: GasNet Australia (Operations) Pty Ltd* [2003] A CompT6, paragraph 29.

283. Consistent with the general approach taken by GGT in its proposed Access Arrangement of December 1999, the Authority has applied the CAPM to estimate the cost of capital for the GGP. In doing so, the Authority has considered the parameters of the CAPM and ranges of values that may reasonably be applied to these parameters. This analysis is set out in Appendix 1 of this Final Decision.
284. The ranges that the Authority considers may reasonably be applied to parameters of the CAPM in estimating the cost of capital for the GGP are as follows.

Reasonable CAPM parameter values for estimation of the rate of return for the GGP

Parameter	Value
Risk free rate (nominal, %)	5.45
Risk free rate (real, %)	2.69
Expected inflation (%)	2.69
Market risk premium (%)	5.0 – 6.0
Equity beta	0.80 – 1.33
Cost of debt margin (%)	0.980 – 1.225
Corporate tax rate (%)*	30.7
Franking credit value (γ)	0.3 – 0.6
Debt to total assets ratio (%)	60
Equity to total assets ratio (%)	40

* Average taxation rate for the ten year period 2000 – 2009.

285. The ranges in the estimated costs of equity derived from the limits in ranges in the values of the CAPM parameters are as follows.

Estimated costs of equity derived from ranges in CAPM parameter values

Cost of Equity (%)	Nominal	Real
Post-Tax	9.5 – 13.4	6.6 – 10.5
Pre-tax	10.8 – 17.1	7.9 – 14.0

286. The ranges in estimated WACC values corresponding to the ranges in the values of the CAPM parameters and ranges in the estimated cost of debt are as follows.

Estimated WACC values derived from ranges in CAPM parameter values

Estimated WACC (%)	Nominal	Real
Post-Tax (Officer)	5.7 – 7.5	2.9 – 4.7
Pre-tax (forward transformation of Officer WACC)	8.2 – 10.8	5.3 – 7.9

287. The Authority notes that applying the extremes of ranges in CAPM parameter values and estimates of the cost of debt give rise to wide ranges in estimates of the WACC: 1.8 to 2.6 percentage points depending on the form of WACC. The wide ranges in

estimates of the WACC result from the multiplicative effect of differences in assumptions for CAPM parameters.

288. The Authority considers that the range of values that different minds acting reasonably could attribute to the cost of equity and WACC is narrower than the ranges that the extremes of ranges in CAPM parameters would suggest. An approach by a Service Provider to determination of the Rate of Return that adopted the highest value within the reasonable range for each of the relevant CAPM parameters would not, in the Authority's view, result in a value for the Rate of Return that different minds, acting reasonably, would attribute to the Rate of Return. Also, such an approach would be inconsistent with the nature of regulatory oversight because the incentive throughout the process of consideration of a Rate of Return would be for the Service Provider to contend for those values for each of the underlying parameters that would produce the highest rate of return. The process would be reduced to a consideration of what would be the highest possible Rate of Return rather than determining a best estimate of the Rate of Return on a reasonable basis.
289. Similarly it would not be reasonable for the Authority to make a determination based on, or implying, a Rate of Return at the lower extreme of the range.
290. Even allowing for the uncertainties associated with forming a judgement as to the range of values that different minds acting reasonably might attribute to the Rate of Return, the value proposed by GGT for the determination of the Reference Tariff set out in its revised Access Arrangement (13.5 percent pre-tax nominal) lies outside of the range of values that may be derived by the application of the extremes of values for each of the parameters. Therefore, even without considering the precise limits for values that different minds, acting reasonably, would attribute to the Rate of Return, it is evident that a value close to or outside the limits of the range implied by these parameter values would result in a value of Total Revenue (and hence a Reference Tariff) that would not comply with the Code. Accordingly, the Authority is of the view that the Rate of Return proposed by GGT does not meet the requirements of the Code. Values of the Rate of Return proposed by GGT at other times during the Authority's assessment of the proposed Access Arrangement (nominal pre-tax Rates of Return of 15.0 percent in December 1999 and 16.2 percent in December 2002) also lie outside of the range in values of the Rate of Return that may be derived by the application of the extremes of values for each of the parameters of the CAPM.
291. The Authority has given consideration to defining a reasonable range of estimates of the Rate of Return that would comply with the Code, which would be narrower than the range that may be derived by the application of the extremes of values for each of the parameters of the CAPM. However, while the Authority recognises that no reasonable person would adopt the extremes of this range, the Authority is of the view that there is no apparent rigorous statistical or other methodology for determining precisely at which point values close to the extreme values of the range do not reflect a reasonable view of the current market for funds.
292. As a result, the Authority is left determining subjective limits marked out by the standard of reasonableness and the extent to which different minds might reach different results. It is possible that there may be factors that indicate that the results might be skewed towards one end of the range or the other. However, the Authority has been unable to identify any such factors in this case.

293. Taking account of these matters, and noting that the Code requires the uncertainties associated with determining the Rate of Return to be brought into account in determining the Total Revenue, the Authority is of the view that the range of values that would comply with the Code should not include the values that lie within the lower 10 percent or upper 10 percent of the range that may be derived by the application of the extremes of values for each of the parameters of the CAPM. The range of values that the Authority considers would comply with the Code is therefore 8.4 percent to 10.6 percent, pre-tax nominal.

Depreciation

294. Sections 8.32 to 8.35 of the Code relate to depreciation of assets that form part of the Capital Base, for the purposes of determining a Reference Tariff.

295. 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.

296. 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 (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 Capital Base 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 Capital Base 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 section 8.27, 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, subject to such adjustment for inflation (if any) as is appropriate given the approach to inflation adopted pursuant to section 8.5A).

297. Section 8.34 provides for the application of depreciation principles in the determination of Total Revenue using internal rate of return or net present value methodologies. If the internal rate of return or net present value methodology is used, then the notional depreciation over the Access Arrangement Period for each asset or group of assets that form part of the Capital Base 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 Capital Base 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 (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).
298. Section 8.35 of the Code provides for the cash flow needs of the Service Provider to be recognised in the determination of the Depreciation Schedule:
- In implementing the principles in section 8.33 or 8.34, regard must be had to the reasonable cash flow needs for Non Capital Costs, financing cost requirements and similar needs of the Service Provider.
299. For the purposes of its proposed Access Arrangement of 15 December 1999, GGT applied a “units-of-production” depreciation methodology to derive a closing value of the Capital Base at 30 December 2004, which was then used in a net present value calculation of Total Revenue. This methodology derives a Depreciation Schedule under which recovery of capital occurs over an assumed economic life of the asset of 40 years from 1996, and capital recovery “tracks” a forecast of pipeline throughput. The effect of GGT’s assumed throughput forecast over the 40 year period and the use of the units-of-production depreciation methodology is accelerated depreciation where a greater proportion of depreciation would be recovered in earlier years, since throughput is projected to decline in later years.
300. GGT sought to justify the use of the units-of-production methodology by indicating that this methodology matches the profile of capital recovery to the profile of revenue received over time. GGT submitted that the units-of-production methodology overcomes difficulties of straight-line depreciation, which assumes that revenue (and the opportunity to recover capital) is evenly distributed over the life of the asset, yet facilitates the objective of determining a levelised tariff.
301. GGT sought to justify the assumption of a 40 year economic life of the GGP by reference to provisions of the *Goldfields Gas Pipeline Agreement Act 1994* that allows for an initial pipeline licence of 21 years, followed by one renewal of 21 years yielding a total of 42 years. Since pipeline design and construction took just under two years, during which no revenue was derived from the transport of natural gas, GGT considered that the “regulatory life” and therefore economic life of the pipeline is 40 years: 1997 to 2036 inclusive.
302. In its submission of 17 December 2002, GGT described a different methodology for determining the Depreciation Schedule. In this submission, GGT described a net present value calculation of Total Revenue for an Access Arrangement Period of 1 July 2002 to 30 June 2007, with a closing value of the Capital Base calculated according to a straight-line Depreciation Schedule over an assumed remaining economic life of 36 years from 1 July 2002. GGT sought to justify the use of this depreciation methodology by indicating that this methodology is “carried over” from the determination of third-party tariffs under the State Agreement.
303. There are two elements of the methodology for determination of the Reference Tariff described by GGT in its submission of 17 December 2002 that would have a bearing on regulatory depreciation and the time path of tariffs:

- depreciation of the Capital Base by a straight-line methodology; and
 - calculation of Total Revenue in nominal terms rather than real terms.
304. In its submission, GGT calculated a Reference Tariff based on depreciation of asset value by a straight-line, historical-cost methodology over a remaining life of the pipeline assets of 36 years from July 2002. Under this methodology, the Capital Base is valued into the future in dollar values as at the time the capital investment occurred. At the commencement of each regulatory period, the Capital Base is valued at the closing value of the previous regulatory period, without adjustment of the value for inflation over the previous period. Under the calculation described by GGT, GGT would be compensated for the effects of inflation on the “value” of the Capital Base through use of a nominal rather than real Rate of Return in the calculation of Total Revenue and the Reference Tariff.
305. The depreciation methodology used by GGT for the purpose of its submission is different to that generally used by Service Providers and approved by regulators under the Code. The more common approach has been a real or current cost accounting approach to straight-line depreciation, whereby the Service Provider is compensated for the effects of inflation on the “value” of the Capital Base through escalation of the closing value at the end of each regulatory period by the rate of inflation in that period to derive an opening value for the next regulatory period in “dollars of the day”.
306. The two different approaches to depreciation give rise to different values of depreciation and, consequently, different time paths in the value of the Capital Base and the Reference Tariff. The nominal calculation (the historical cost, straight-line depreciation as described by GGT) results in more rapid depreciation of the Capital Base, a higher “depreciation cost” and hence a greater initial value of the Reference Tariff.
307. If realised inflation is the same as forecast inflation, then tariffs derived from both methodologies would return the same present value of revenue. Implications for the Service Provider are differences in tariff paths and cash flows, and different exposures to inflation risk. The nominal calculation gives rise to higher tariffs early in the life of the asset and brings forward cash flows. The nominal calculation does, however, expose the Service Provider to inflation risk. That is, if inflation in a regulatory period is higher than that forecast at the commencement of the regulatory period, then the Service Provider will be under-compensated for the erosion of the residual value of the Capital Base by inflation. Conversely, if inflation in a regulatory period is less than that forecast at the commencement of the regulatory period, then the Service Provider will be over-compensated for the erosion of the residual value of the Capital Base by inflation. Under a real calculation, the Service Provider is exactly compensated for the effects of inflation on the residual value of the Capital Base.
308. For the purposes of the Amended Draft Decision, the Authority considered the depreciation methodologies proposed by GGT for its proposed Access Arrangement of 15 December 1999 and for its submission of 17 December 2002 against the principles for a Depreciation Schedule as set out in section 8.33 of the Code.
309. Section 8.33 requires that the depreciation allowance in the determination of Total Revenue should:

- result in the Reference Tariff changing in a manner that is consistent with the efficient growth in the market for the Services;⁵⁵
 - be over the economic life of the asset or group of assets;⁵⁶
 - to the extent reasonable, adjust the life of the assets over time to reflect changes in the expected economic life of the assets;⁵⁷ and
 - result in the Capital Base being “returned” only once (i.e. no upward revaluations of assets).⁵⁸
310. With respect to the first two of these principles, “consistency of tariffs with the efficient growth in the market” and “depreciation over the economic life of the assets” are specific requirements. The Code provides further guidance in determining whether a proposed Depreciation Schedule complies with these principles in requiring that forecasts of the economic life of the pipeline and the size of the market for Services must be “represent best estimates arrived at on a reasonable basis”.⁵⁹
311. The third of the principles – which requires any changed market circumstances to be reflected in the forward-looking Depreciation Schedule – implies that a Depreciation Schedule determined as part of the process of determining a Reference Tariff need not be “set in stone”. That is, at the time of tariff re-sets (i.e. review of the Access Arrangement), new information having a bearing on forecasts of the economic life of the pipeline and future market for Services may be taken into account in revising the Depreciation Schedule. The fourth principle is a constraint on depreciation, requiring that the Service Provider not over-recover capital. Neither of these two principles is relevant to the current assessment.
312. In the Amended Draft Decision, the Authority took the view that depreciation by the units of production methodology proposed by GGT is not consistent with the principles of section 8.33 of the Code, but depreciation by an historic cost, straight-line methodology, as proposed by GGT in its submission of 17 December 2002, is consistent with these principles.
313. In taking this view, the Authority recognised that GGT proposed depreciation over an assumed economic life of 42 years that is likely to be less than the technical life of a pipeline asset such as the GGP. As justification for depreciation over an economic life of less than the technical life of the assets, GGT reasoned that all of the project’s economics were based upon the recovery of costs over 42 years and that to adopt a longer life impacts upon GGT’s legitimate business interests. The Authority considered that GGT’s reasons relate primarily to its contentions of rights under the State Agreement, which are not relevant to the derivation of the depreciation allowance under the Code. Nevertheless, the Authority took the view that GGT’s

⁵⁵ Section 8.33(a) of the Code.

⁵⁶ Section 8.33(b) of the Code.

⁵⁷ Section 8.33(c) of the Code.

⁵⁸ Section 8.33(d). A negative revaluation would be classed as ‘capital redundancy’, and subject to the principles in sections 8.27 to 8.29.

⁵⁹ Section 8.2(e) of the Code.

position that depreciation over an assumed economic life of 42 years would be more appropriate than depreciation over the physical life of the pipeline assets is not necessarily unreasonable. Given that the level of use of the pipeline is related directly or indirectly to the level of mining activity in the Pilbara and Eastern Goldfields regions and that mines have finite but uncertain lives, the Authority accepted that it is not unreasonable to presume that the economic life of the pipeline could be circumscribed by a reduction in mining activity. While it would be difficult (if not impossible) to make a reliable prediction of the economic life of the pipeline, 42 years could possibly be a reasonable estimate of the (expected) economic life. Also, while accelerated recovery of capital by assumption of an economic life of less than the physical life of assets results in higher tariffs early in the life of the pipeline, lower tariffs would occur later in the life of the pipeline if indeed the pipeline life extends beyond the 42 years projected by GGT.

314. The Authority therefore accepted GGT's submission for use of a straight-line depreciation methodology or depreciation of the pipeline assets over an economic life that is less than the physical life of the principal pipeline assets. The straight-line depreciation methodology is consistent with standard practice for regulated pipelines in Australia, and this methodology and the assumption of 42 years economic life are arguably appropriate given the nature of the market for the GGP and the future outlook for demand for pipeline Services.
315. The Authority was mindful that the historical cost accounting methodology used by GGT for the calculation of Total Revenue has the effect of accelerating depreciation and considers that there is no substantive justification in terms of expectations of a decline in the market for pipeline Services. However, taking into account that the effect of this is to affect the time path of tariffs but not the present value of returns to GGT over the life of the pipeline, and that the required amendments to the Access Arrangement under this Amended Draft Decision result in a reduction in tariffs for the pipeline despite the accelerated depreciation,⁶⁰ the Authority considered that the historical-cost, straight-line depreciation methodology used by GGT for the purposes of the tariff calculation described in its submission of 17 December 2002 complies with the requirements of the Code.
316. The Authority noted two errors by GGT in its use of its proposed depreciation methodology. Firstly, the indication by GGT in its submission of 17 December 2002 of a remaining asset life of 36 years from 1 July 2002 is inconsistent with GGT's reasoning of an economic life for the GGP of 42 years from 1994. Secondly, in the tariff calculation in this submission, GGT determined depreciation for all new investment on the basis of a 36 year life of the assets regardless of the year in which the investment is made. This is inconsistent with the concept of depreciation over an economic life of the pipeline, for which consistency would require that New Facilities Investment be depreciated over the remaining economic life, i.e. investment made in 2002 depreciated over a life of 36 years, investment made in 2003 depreciated over a life of 35 years, and so on. The Authority corrected both of these errors in its determination of Total Revenue and the Reference Tariff for the purposes of the Amended Draft Decision, assuming a remaining economic life of 36.5 years from

⁶⁰ Refer to paragraph 402 and following for the Authorities consideration of the Reference Tariff.

1 January 2000 and depreciation of New Facilities Investment over remaining economic life from the year in which the investment occurs.

317. The Authority did not explicitly require revision of the Reference Tariff to reflect a revised Depreciation Schedule consistent with GGT's submission of 17 December 2002 and the correction of errors as identified above. The Authority did, however, require the Reference Tariff to be revised to reflect a stated present value of Total Revenue and, with the required revisions to values of other cost component values of Total Revenue, the revised Depreciation Schedule was implicit in the required amendments to the Reference Tariff.
318. GGT has not revised the proposed Reference Tariff to incorporate a Depreciation Schedule consistent with the required amendment to the Reference Tariff under the Amended Draft Decision. Rather, GGT has revised the Reference Tariff to reflect, *inter alia*, depreciation by an historical-cost, straight-line methodology over a longer assumed asset life of 64.5 years from 1 January 2000, corresponding to an assumed 70 year asset life from July 1994. GGT submits that:⁶¹

there can be no certainty as to the likely economic life of the GGP and GGT submits that it is primarily a matter for the judgement of the service provider to determine the period over which the ICB should be depreciated.

and

... adoption of the shorter 42 year life results in relatively early recovery of the capital value of the pipeline, meaning that current users would pay higher tariffs due to the effective acceleration of depreciation arising from the shorter life, and future users will pay tariffs based on a significantly reduced capital value. GGT submits that, in the context of the Code, having regard to GGT's legitimate business interests, and the interests of Users and Prospective Users, the use of the 70 year life is appropriate. In doing so, GGT recognises that the Code will permit revision of the economic life if it subsequently appears that a 70 year life is not economic.

319. The Authority has sought further clarification from GGT as to whether it intended to determine depreciation for all assets, including new assets arising from New Facilities Investment, over an assumed remaining life for the original pipeline assets (i.e. a remaining life of the principal pipeline assets included in the Initial Capital Base of 64.5 years) or whether it intended new assets to be depreciated over asset lives reflecting an expected life for the respective classes of new assets. GGT has indicated that it intended the latter.
320. The reasons expressed by the Authority in the Amended Draft Decision for accepting GGT's December 2002 submission on the Depreciation Schedule, and requiring consequent revision of the Reference Tariff, included that the historical-cost, straight-line methodology is consistent with the forecast of demand for pipeline services in the foreseeable future, and that an assumed asset life for depreciation purposes that is based on an economic life nominated by the Service Provider is not unreasonable in the circumstances of the GGP. While GGT has revised the Access Arrangement such that the Reference Tariff reflects depreciation over a longer asset life consistent with the expected useful life of the assets rather than a horizon for the project life, the

⁶¹ GGT Submission, 23 November 2004, p 43.

Authority is satisfied that this revision addresses the reasons of the Authority for requiring revision of the Reference Tariff.

321. Taking into account the Authority's determination on the value of the Initial Capital Base and on forecast New Facilities Investment as set out in this Final Decision, the projected roll forward of the Capital Base over the period 2000 to 2009 is as follows.

Goldfields Gas Pipeline Projected Roll Forward of the Capital Base (nominal \$million)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<i>Depreciable Assets</i>										
Opening Value	497.42	491.05	489.22	479.91	479.45	474.68	465.14	459.11	452.99	442.82
New Facilities Investment	3.64	8.39	1.12	10.14	6.14	1.58	5.26	5.43	1.61	1.72
Depreciation	10.01	10.22	10.43	10.60	10.91	11.12	11.29	11.55	11.78	11.35
Closing value	491.05	489.22	479.91	479.45	474.68	465.14	459.11	452.99	442.82	433.19
<i>Non Depreciable Assets</i>										
Linepack and Working Capital	2.93	3.65	2.98	4.37	3.63	3.14	3.70	3.77	3.37	3.42
<i>Closing Capital Base Value</i>	493.98	492.87	482.89	483.81	478.31	468.28	462.81	456.76	446.19	436.61

Non Capital Costs

322. Sections 8.36 and 8.37 of the Code provide for the recovery of Non Capital Costs through the Reference Tariff:

8.36 Non Capital Costs are the operating, maintenance and other costs incurred in the delivery of the Reference Service. Non Capital Costs may include, but are not limited to, costs incurred for generic market development activities aimed at increasing long-term demand for the delivery of the Reference Service.

8.37 A Reference Tariff may provide for the recovery of 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.

323. GGT provided a forecast of Non Capital Costs in the Access Arrangement Information submitted with the proposed Access Arrangement on 15 December 1999, as indicated in the table below. The proposed Non Capital Costs were indicated to be related to "pipeline operating and maintenance costs" and "management costs":

- pipeline operating and maintenance costs – those costs incurred in the operation and maintenance of the GGP and associated facilities, including direct operations, operations support, engineering support, right-of-way management, and direct administration and management; and
- management costs – those costs incurred in the high level management of the GGP and the provision of commercial and contractual support to direct operations, including management fees, legal, public relations, regulatory-related activities, and communications leases.

**Goldfields Gas Pipeline Forecast Non Capital Costs
(Information provided 15 December 1999, nominal \$million)**

Year	2000	2001	2002	2003	2004
Pipeline operating and maintenance costs	6.635	6.937	7.133	7.386	7.781
Management costs	4.669	4.315	4.169	4.200	4.931
Total Non Capital Costs	11.304	11.252	11.302	11.586	12.712

324. The costs presented in the table above do not include “used gas” (the sum of compressor fuel and unaccounted for gas) or linepack adjustments. Marketing and overhead costs are included as part of management costs. Marketing and overhead costs are indicated to include, but not be limited to:

- salaries and related on-costs;
- legal costs;
- marketing costs;
- public relations costs;
- commercial and operations management fees;
- regulatory costs; and
- project evaluation costs.

325. Further details of the breakdown of forecast Non Capital Costs were provided in the Access Arrangement Information.⁶²

326. In its submission of 17 December 2002, GGT provided data on actual Non Capital Costs to June 2002, and revised forecasts of New Facilities Investment from 1 July 2002 to 30 June 2007, as follows.⁶³

**Goldfields Gas Pipeline actual and forecast Non Capital Costs
(Information provided 17 December 2002, nominal \$million)**

Year	2000	2001	½ 2002	2002/03	2003/04	2004/05	2005/06	2007/08
Actual Expenditure				Forecast Expenditure				
Non Capital Costs	9.510	10.496	5.604	16.300	15.900	15.700	16.100	16.500

327. In March 2004, GGT provided further data on actual and forecast Non Capital Costs by calendar year to 31 December 2009, as follows.

⁶² AAI sections 5.1 and 5.2.

⁶³ GGT Submission, 17 December 2002, Schedule 2.

**Goldfields Gas Pipeline actual and forecast Non Capital Costs
(Information provided March 2004, nominal \$million)**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual Expenditure					Forecast Expenditure					
Pipeline operation and maintenance	5.85	5.83	6.35	8.78	10.01	10.06	9.47	9.70	10.06	10.25
Management	3.15	3.05	3.80	4.34	4.14	4.25	4.43	4.60	4.82	5.01
Regulation	0.37	1.68	1.99	2.06	1.39	0.87	0.66	0.73	0.75	0.78
Total	9.37	10.56	12.14	15.19	15.53	15.19	14.56	15.03	15.63	16.03

328. The time series of actual and forecast Non Capital Costs shows these costs to have been increasing at a rate in excess of the rate of inflation since 1997 to 2003, with a substantial increase in actual costs each year from 2000 to 2003.
329. GGT indicated that the increase was due to the following.
- Pipeline operating and maintenance costs increasing in 2003 as a result of increases in the costs of compressor station parts, DCVG survey, cleaning prior to “intelligent pigging”, motor vehicles and fly in - fly out travel.
 - Management costs increasing substantially from previous forecasts due to the following major cost increases:
 - increase in insurance costs;
 - administration cost increase previously budgeted under operating budget; and
 - contingent provision in 2003 for regulatory costs and increases in general regulatory costs.
330. GGT did not provide the Authority with any information to substantiate the claims of cost increases, or information that would enable it to assess the reasonableness of these forecast increases in costs.
331. The Authority noted in the Amended Draft Decision that the cost items for which GGT has indicated increases in forecast costs are items that would be expected to affect any gas transmission pipeline in Western Australia. The Authority observed, however, that such cost increases were not evident in forecasts of Non Capital Costs for the DBNGP in Western Australia for the period to 2009 for which costs were forecast to increase at a rate similar, on average, to a forecast rate of inflation (common in cost forecasts of both Epic Energy and GGT of 2.5 percent).⁶⁴
332. The Authority also compared the actual and forecast costs for the GGP with forecast costs approved by regulators for the Amadeus Basin to Darwin Pipeline and the Moomba to Sydney Pipeline.

⁶⁴ Cost forecasts are contained in: Epic Energy, 8 August 2003, Dampier to Bunbury Natural Gas Pipeline Revised Proposed Access Arrangement Information under the National Access Code, Submission Version (Published on the website of the Economic Regulation Authority, 30 December 2003).

333. The comparison indicated that the forecast Non Capital Costs for the GGP are relatively high in comparison with the other two pipelines that have similar characteristics in length and numbers of compressor stations. While the comparison provided insufficient data for reliable benchmarking of Non Capital Costs, the comparison caused the Authority to question whether the actual and forecast operating costs of GGT meet the requirements of section 8.37 of the Code.
334. In the Amended Draft Decision, the Authority took the view that GGT failed to provide sufficient information to the Authority to make a determination that the forecast Non Capital Costs comply with the requirements of section 8.37 of the Code. The Authority also took the view that there is evidence in the comparison of forecast Non Capital Costs for the GGP with the forecast Non Capital Costs for other Australian transmission pipelines to suggest that the actual and forecast Non Capital Costs stated by GGT may not comply with the requirements of section 8.37 of the Code. In the absence of sufficient information to enable the Authority to make an assessment of reasonable Non Capital Costs, the Authority assessed the Reference Tariff on the basis of actual Non Capital Costs incurred for the period 2000 to 2003, and Non Capital Costs for subsequent years determined as the average of actual annual Non Capital Costs for the period 2000 to 2003, inflated annually by the rate of inflation assumed in determination of the Rate of Return.

Goldfields Gas Pipeline Non Capital Costs re-determined by the Authority in assessment of the Reference Tariff for the Amended Draft Decision (nominal \$million)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Non Capital Costs	9.37	10.56	12.14	15.19	12.56	12.88	13.22	13.56	13.92	14.28

335. The Authority required amendment of the Reference Tariff to reflect the re-determined Non Capital Costs.
336. In the revised Access Arrangement, GGT has not revised the Reference Tariff to incorporate the re-determined Non Capital Costs.
337. GGT submits that the Authority erred in its assessment of Non Capital Costs, contending that:
- the GGP is not comparable to the DBNGP for reason that “unlike the DBNGP, the GGP operates under two regulatory regimes, being the Code and the State Agreement, which necessarily leads to reasonable increases in additional expenditure”; and
 - neither the Amadeus Basin to Darwin Pipeline nor the Moomba to Sydney Pipeline “are sufficiently similar to the GGP to be used as a reliable indicator of the efficiency of GGT’s non capital costs” for reason of the remoteness of the GGP, a requirement for the GGP to provide a higher level of service reliability than the Moomba to Sydney Pipeline, the use of only one compressor station on the Amadeus Basin to Darwin Pipeline, and the GGP being subject to a “hybrid statutory/regulatory regime”.⁶⁵

⁶⁵ GGT Submission, 23 November 2004, pp 40, 41.

338. The Authority does not accept GGT's submission of error in the Authority's consideration of Non Capital Costs in the Amended Draft Decision.
339. The Authority accepts, and noted in the Amended Draft Decision, that a comparison of Non Capital Costs of the GGP with those of the other pipelines was not sufficient for reliable benchmarking of Non Capital Costs. The Authority did, however, conclude that the comparison provides sufficient evidence to indicate that the actual and forecast Non Capital Costs of GGT *may* not meet the requirements of section 8.37 of the Code.⁶⁶ In determining to require revision of the forecast Non Capital Cost, the Authority took this comparison into account, together with the absence of information from GGT to justify the forecast costs and the substantial year to year increases in the forecast costs.
340. The Authority does not accept GGT's submission that differences between the GGP, the DBNGP, the Amadeus Basin to Darwin Pipeline and the Moomba to Sydney Pipeline are sufficient to justify the relatively high Non Capital Costs of the GGP or a higher rate of increase in Non Capital Costs. In particular, GGT has placed particular weight on a requirement for compliance with the State Agreement as well as the Code as a reason for higher costs, but has not provided any information to indicate that a material level of costs is incurred in complying with the requirements of the State Agreement (as opposed to activities related to ascertaining the interaction between the Code and the State Agreement). The Authority also notes that the increases in GGT's costs over the period 2000 to 2009 occur principally in the cost category of pipeline operation and maintenance and not in the category of regulation.
341. The Authority is therefore not satisfied that GGT has addressed the reasons expressed in the Amended Draft Decision for requiring amendment of the Reference Tariff to reflect a different forecast of Non Capital Costs.
342. In the revised Access Arrangement GGT has incorporated revised actual and forecast Non Capital Costs in the determination of the Reference Tariff other than as necessary to address the reasons for the Authority's required amendment. The revised Non Capital Costs are as follows.

⁶⁶ Amended Draft Decision, paragraph 373.

Goldfields Gas Pipeline actual and forecast Non Capital Costs
(Information provided November 2004 and January 2005, nominal \$million)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual Expenditure						Forecast Expenditure				
Pipeline operation and maintenance	9.00	8.58	9.65	12.03	12.62	13.16	14.37	14.78	14.31	14.81
Administration and General	1.15	2.53	3.12	3.80	4.81	4.49	4.57	4.75	4.89	5.04
Subtotal	10.15	11.11	12.77	15.83	17.43	17.65	18.94	19.53	19.20	19.85
Corporate Overheads	1.73	1.68	1.91	2.08	1.80	1.99	2.04	2.09	2.14	2.19
Allowance for Asymmetric Risk	0.00	0.00	0.00	0.00	0.00	4.18	4.29	4.40	4.51	4.62
Total	11.88	12.79	14.67	17.91	19.23	23.82	25.26	26.02	25.85	26.67

343. GGT has provided explanatory information on Non Capital Costs to the Authority in public⁶⁷ and confidential⁶⁸ submissions.
344. The revisions to actual and forecast Non Capital Costs submitted by GGT comprise revisions to the previously submitted actual and forecast Non Capital Costs and addition of costs for two further cost categories: corporate overheads and allowance for asymmetric risk.
345. The revisions to previously submitted Non Capital Costs comprise increases in the costs attributed to “pipeline operation and maintenance” and “administration and general”, with the latter presumed by the Authority to include the cost categories of “management” and “regulation” set out in GGT’s previous submissions on Non Capital Costs. The increases amount to between \$0.6 million to \$0.8 million in the costs previously indicated by GGT to be costs actually incurred in years 2000 to 2003, and between \$1.9 million and \$4.5 million in costs previously forecast for the years 2004 to 2009.
346. In regard to actual costs for the period 2000 to 2003, GGT has not provided explanation for the increase in the previously reported actual Non Capital Costs for the period 2000 to 2003. GGT has, however, provided information to indicate the reasons for substantial year to year increases in Non Capital Costs over the period 2000 to 2004, which include:
- increases in costs paid to Agility (subsidiary of the Australian Gas Light company) for provision of pipeline operating and maintenance services and in management fees;
 - increases in insurance costs; and

⁶⁷ GGT Submission, 23 November 2004

⁶⁸ Goldfields Gas Transmission, 25 November 2004, Goldfields Gas Pipeline Supporting Information to revised Access Arrangement Submitted to Economic Regulation Authority on 17 November 2004, Confidential.

- increases in costs paid to CMS Energy Gas Transmission Australia Commercial Operations (“CMS”) under the commercial services agreement between CMS and GGT, primarily in relation to legal costs associated with the action taken by Epic Energy in the Supreme Court in respect of the Regulator’s Draft Decision on the proposed Access Arrangement for the DBNGP; court proceedings in relation to the interaction between the State Agreement and the Code; GGT’s application for revocation of coverage of the GGP under the Code; meeting of requirements to provide information to the Authority; and discussions with the State Government in relation to the State Agreement.
347. The Authority notes that a large proportion of GGT’s Non Capital Costs, and of the cost increases described for the period 2000 to 2004, are costs of payments to companies associated with the owners of the GGP – Agility and CMS. As the arrangements for provision by these companies of services to GGT may not reflect arrangements entered into through an arm’s length commercial process, the costs cannot be accepted at face value as costs that would be incurred by a prudent service provider, acting efficiently, in accordance with accepted and good industry practice, and to achieve the lowest sustainable cost of delivering the Reference Service. The Authority recognises, however, that establishing the efficiency of these costs is difficult.
348. The Authority does not accept that the full range of legal and regulatory costs included by GGT in its actual Non Capital Costs for the period 2000 to 2004 are necessarily costs that would be incurred in achieving the lowest sustainable cost of delivering the Reference Service. The Authority accepts that the regulatory process under the Code will cause a prudent pipeline operator to incur certain costs for legal advice and administrative activities, and that these costs are consistent with the lowest sustainable cost of providing pipeline Services. The Authority does not accept, however, that the Code allows for the recovery of costs incurred outside the Code process, by reason of challenges to the jurisdiction of the Regulator or the application of the Code. Accordingly, costs associated with claims that the Regulator did not have jurisdiction and the Code did not apply by reason of the terms of the State Agreement and in relation to the application for revocation of coverage of the GGP under the Code can not be part of the Non Capital Costs referred to in the Code.
349. The Authority also notes that in providing explanatory information on year to year increases in costs, GGT has sought to explain only the increase from year to year and not the cumulative increase from 2000 to 2004. Many of the reasons stated by GGT for increases in costs are in the nature of one-off events (particularly in respect of legal and regulatory costs) and the Authority does not consider that the information provided by GGT adequately explains the cumulative increase in costs in the order of \$7 million over this period.
350. In regard to forecast Non Capital Costs for 2005 to 2009, GGT submits that the forecast of costs for the period 2005 to 2009 has been revised in accordance with a more recent cost budget of GGT and a more rigorous analysis of forecast costs for “major expense jobs” that include SCADA replacement, compressor overhauls, and upgrades to management systems and information technology. GGT has provided the Authority with a brief description and overview of these projects, but has not provided information to indicate that the forecast costs are, necessarily, costs that meet the requirements of section 8.37 of the Code. The Authority has some concern that costs

identified by GGT for SCADA replacement, information technology upgrades, management system upgrades and replacement of solar batteries (amounting in total to \$2.86 million over the period 2006 to 2009) may be inappropriately identified as Non Capital Costs rather than New Facilities Investment.

351. The values of costs attributed by GGT to major expense jobs accounts for only about half of the increases in forecast costs over the forecast provided by GGT in March 2004. The remainder of the increase in forecast costs is unexplained.
352. For the reasons set out above, the Authority does not consider that GGT's claimed actual Non Capital Costs in the categories of pipeline operating and maintenance costs and administration and general costs for the period 2000 to 2004 and forecast costs for the period 2005 to 2009 satisfy the requirements of section 8.37 of the Code.
353. Taking into account GGT's submission on the Non Capital Costs in the categories of pipeline operating and maintenance costs and the above assessment of this submission, the Authority has re-determined the Non Capital Costs in these categories as follows.
- For the period 2000 to 2003, subtraction from the actual costs submitted by GGT in March 2004 of \$0.9 million in 2003, being an amount attributed by GGT to activities predominantly associated with the application by GGT for revocation of coverage of the GGP under the Code and determining the interaction between the Code and State Agreement.
 - For the period 2004 to 2009, addition to the forecast costs as derived by the Authority in the Amended Draft Decision, amounts indicated by GGT for compressor overhauls in the years 2006 to 2009 of \$0.555 million, \$0.570 million, \$0.700 million and \$0.600 million in each respective year.
 - The Authority is not satisfied that costs indicated by GGT for major expense jobs of SCADA replacement, information technology upgrades, management system upgrades and solar battery replacement are appropriately classified as Non Capital Costs. The Authority has therefore determined not to allow inclusion of these costs to the Non Capital Cost forecasts previously provided by GGT, but will allow these costs to be included in forecasts of New Facilities Investment taken into account in determination of the Reference Tariff under the provisions of section 8.20 of the Code.
354. The Non Capital Costs in the categories of pipeline operating and maintenance costs and general and administration costs have thus been redetermined by the Authority as follows.

Goldfields Gas Pipeline operating & maintenance costs and administration & general costs re-determined by the Authority in assessment of the Reference Tariff for the Final Decision (nominal \$million)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Actual costs indicated by GGT (March 2004)	9.37	10.56	12.14	15.19						
Less costs associated with application for revocation of coverage and interaction of the Code and State Agreement				0.90						
Forecasts costs for 2004 to 2009 as per the Amended Draft Decision					12.56	12.88	13.22	13.56	13.92	14.28
Addition of costs indicated for compressor overhaul							0.56	0.57	0.70	0.60
Total	9.37	10.56	12.14	14.29	12.56	12.88	13.77	14.13	14.62	14.88

355. The Authority has given consideration to the additional costs in the categories of corporate overheads and allowance for asymmetric risk that GGT has submitted should be included in Non Capital Costs.
356. In regard to corporate overhead costs, GGT submits that the companies that own the GGP (through the joint venture arrangement) incur costs in managing their interests in the joint venture and addressing issues that arise under contracts for services in the GGP, and that these costs are part of the costs of providing services through the GGP. Accordingly, GGT submits that an amount for the costs of the joint venturers in owning and managing their interests should be included in the non-capital costs for the pipeline.
357. GGT submits that the corporate overhead costs that should be included in Non Capital Costs include costs of directly attending to joint venture business, corporate insurance, director's fees, compliance, general corporate governance including ASX listing requirements, personnel and training, general legal, accounting, managing taxation affairs, office administration and government levies.
358. GGT has determined notional values of corporate overhead costs by a pro rata attribution of a share of costs of Australian Pipeline Trust to Southern Cross Pipelines for the period 2001 to 2004, and then scaling up of these costs to what they might be if Australian Pipeline Trust had been a full owner of Southern Cross Pipelines and Southern Cross Pipelines was a full owner of the GGP. The corporate overhead costs for other years in the period 2000 to 2009 were then assumed to be the average of the values (in real terms) for 2001 to 2004, adjusted for inflation to a nominal value.

359. The Authority accepts, in principle, that costs in the nature of corporate overhead costs and incurred by a separate business from the Service Provider may be included in forecasts of Non Capital Costs (and satisfy the requirements of section 8.37 of the Code) where those costs relate to activities that are necessary for the provision of pipeline Services. This does not mean that *any* costs incurred by an owning company and in relation to ownership of the Service Provider as a subsidiary business should be included in Non Capital Costs. In this regard, the Authority considers that costs incurred simply in management of an ownership interest, as distinguished from costs incurred in undertaking activities necessary for the provision of pipeline Services, would not meet the requirements of section 8.37 of the Code.
360. In the case of the GGP, as the ownership structure is one of a joint venture rather than an incorporated entity, the Authority accepts that there would be a range of activities undertaken by the joint venture participants, rather than GGT itself, that are necessary for the provision of Services. These activities could reasonably be expected to include the cost items relating to corporate governance and administration that GGT has indicated to be included in its submission of corporate overhead costs.
361. The Authority has reviewed GGT's derivation of corporate overhead costs and is satisfied, for the purposes of this Final Decision, that the methodology used to estimate corporate overhead costs represents an appropriate methodology for allocating costs of the pipeline owners to GGT, and for making a pro rata estimate of total ownership costs based on the share of ownership of Southern Cross Pipelines in the GGP and, in turn, Australian Pipeline Trust ownership of Southern Cross Pipelines. The Authority is not satisfied that all of the costs attributed from Australian Pipeline Trust to the GGP business relate to activities necessary for the provision of pipeline services rather than activities relating to management of an ownership interest. However the Authority recognises that this distinction may be difficult to make. For the purposes of this decision, the Authority therefore accepts GGT's submission for the inclusion of corporate overhead costs in Non Capital Costs.
362. In regard to an allowance for asymmetric risk, GGT submits that the Non Capital Costs should include an allowance to compensate GGT for risk in demand for pipeline services. In its submission of November 2004, GGT submitted that this allowance should be an amount of \$2.0 million per annum. In January 2005, GGT made a further submission to the Authority that this amount should be increased to a value of \$4.18 million in 2005 and equivalent values in real terms for the years 2006 to 2009. In justification of this allowance, GGT submitted to the Authority a report prepared by Networks Economics Consulting Group.⁶⁹
363. GGT's justification for an allowance for asymmetric risk is a contention that there is a greater probability of decreases in demand for pipeline services than of increases in demand and, as such, the expected value of returns from the pipeline is less than that corresponding to the most likely forecast of demand on which basis the Reference Tariff is calculated. GGT contends that the cost inherent in this risk can be forecast by estimation of an actuarially fair estimate of an annual cost of self insurance against this risk.

⁶⁹ Networks Economics Consulting Group, January 2005, Quantification of Asymmetric Demand Risk on the Goldfields Gas Pipeline.

364. The Authority does not accept that an allowance for asymmetric risk in the nature of that claimed by GGT meets the requirement of section 8.37 of the Code for a Non Capital Cost to be recovered through the Reference Tariff. The Authority is of the view that a prudent Service Provider, acting efficiently, would incorporate demand risk into a probabilistic forecast of demand taking into account assessments of probabilities of demand for individual Users, Prospective Users and for future gas use in regions of gas delivery.
365. Moreover, even if an allowance for asymmetric risk in demand forecasts met the requirements of section 8.37 of the Code for a Non Capital Cost to be recovered through the Reference Tariff, the Authority does not consider that GGT has submitted a reasonable valuation of such allowance. The reasons of the Authority in taking this view are as follows.
- The probability distribution of future demand for pipeline services underlying assessment of asymmetric risk in demand is an assumed probability distribution that is not based on any rigorous assessment of future gas demand by current Users, Prospective Users or gas demand in the region serviced by the GGP. GGT has not established that demand risk is “fundamentally asymmetric in character”,⁷⁰ or that, if it is, there is a greater risk of decreases rather than increases in demand.
 - The assessment of risks to GGT associated with deviations of demand from current forecasts does not take into account periodic re-sets of the Reference Tariff taking into account changes in gas forecasts, including revisions that may occur at any time at the instigation of the Service Provider.
366. The Authority therefore does not accept GGT’s submission for an allowance for asymmetric risk in demand forecasts to be included in Non Capital Costs to be recovered through the Reference Tariff.
367. Taking into account the above analysis of GGT’s revisions to forecast Non Capital Costs, the Authority has re-determined the Reference Tariff on the basis of Non Capital Costs as follows.

Goldfields Gas Pipeline Non Capital Costs determined by the Authority in assessment of the Reference Tariff for the Final Decision (nominal \$million)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Operating & maintenance and administration & general	9.37	10.56	12.14	14.29	12.56	12.88	13.77	14.13	14.62	14.88
Corporate overheads	1.73	1.68	1.91	2.08	1.80	1.99	2.04	2.09	2.14	2.19
Total	11.10	12.24	14.04	16.37	14.35	14.87	15.82	16.22	16.76	17.07

⁷⁰ Networks Economics Consulting Group, January 2005, Quantification of Asymmetric Demand Risk on the Goldfields Gas Pipeline, p16.

Total Revenue

368. 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 or are otherwise used to provide Services (**Capital Base**);
- (b) depreciation of the Capital Base (**Depreciation**); and
- (c) the operating, maintenance and other non-capital costs incurred in providing all Services (**Non-Capital Costs**).

IRR: The Total Revenue will provide a forecast Internal Rate of Return (IRR) for the Covered Pipeline that is consistent with the principles in sections 8.30 and 8.31. 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 this section 8.

NPV: The Total Revenue will provide a forecast Net Present Value (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.

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 this section 8.

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

However, the methodology used to calculate the Cost of Service, an IRR or NPV may also allow the Service Provider to retain some or all of the benefits arising from efficiency gains under an Incentive Mechanism. The amount of the benefit will be determined by the Relevant Regulator in the range of between 100% and 0% of the total efficiency gains achieved.

369. Section 8.5A of the Code provides for different methodologies for dealing with the effects of inflation in the Total Revenue and Reference Tariff calculation.

8.5A Any of the methodologies described in section 8.4 or permitted under section 8.5, may be applied:

- (a) on a nominal basis (under which the Capital Base and Depreciation are expressed in historical cost terms and all other costs and revenues are expressed in current prices and a nominal Rate of Return is allowed); or
- (b) on a real basis (under which the Capital Base, Depreciation and all costs and revenues are expressed in constant prices and a real Rate of Return is allowed); or
- (c) on any other basis in dealing with the effects of inflation,

provided that the basis used is specified in the Access Arrangement, is approved by the Relevant Regulator and is applied consistently in determining the Total Revenue and Reference Tariffs.

370. Section 8.6 of the Code recognises that a range of values may be attributed to the Total Revenue by the above methodologies. This recognises the manner in which the Rate of Return, Capital Base, Depreciation Schedule and Non Capital Costs may be determined, in each case involving the exercise of discretion. Section 8.6 provides that, in order to determine an appropriate value within this range, the Authority may have regard to any financial and operational performance indicators considered by the Authority to be 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 of section 8.1 of the Code. If the Authority has considered financial and operational performance indicators for the purposes of section 8.6 of the Code, section 8.7 requires the Authority to identify the indicators and provide an explanation of how they have been taken into account.
371. For its proposed Access Arrangement of 15 December 1999, GGT used an NPV methodology for determining Total Revenue.⁷¹ GGT stated that the NPV approach was proposed because it yields levelised tariffs by averaging costs over the Access Arrangement Period, and that the NPV methodology produces a price path expressed in real terms (inflation adjusted), which is known and provides simplicity and predictability for Users.
372. GGT's proposed Total Revenue was stated as follows,⁷² with a present value of \$320.62 million, calculated using GGT's proposed nominal pre-tax WACC of 15.0 percent.

Proposed Total Revenue (GGT proposed Access Arrangement, 15 December 1999)

Year	2000	2001	2002	2003	2004
Total Revenue (nominal \$million)	90.0	92.1	99.1	100.9	100.3

373. In its submission of 17 December 2002, GGT presented a revised determination of Total Revenue for the period 1 July 2002 to 30 June 2007, indicated as follows, with a present value of \$387.22 million calculated using the a nominal pre-tax WACC (presented by GGT in its submission) of 16.2 percent.

Proposed Total Revenue (GGT submission of 17 December 2002)

Year	2002/03	2003/04	2004/05	2005/06	2006/07
Total Revenue (nominal \$million)	120.1	115.4	116.8	120.2	123.0

374. The Authority indicated in its Amended Draft Decision that it was not satisfied that values proposed by GGT for the Initial Capital Base, Rate of Return and Non Capital Costs are appropriate values under the relevant provisions of the Code. The Authority

⁷¹ Access Arrangement Information, sections 7.2.1, 7.2.2.

⁷² Access Arrangement Information, section 7.5.3.10.

undertook a determination of Total Revenue using the same nominal, net present value methodology as used by GGT, but with values of cost parameters as follows.

Parameter Values in the Authority's determination of Total Revenue (Amended Draft Decision)

Initial Capital Base	\$480 million at 31 December 1999, including working capital of \$1.3 million									
New Facilities Investment	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	3.64	8.39	1.12	10.21	5.87	1.25	1.31	1.38	1.45	1.52
Nominal pre-tax Rate of Return	10.81% for the 6 year period 1 January 2000 to 31 December 2005 10.79% for the 10 year period 1 January 2000 to 31 December 2009									
Depreciation	Straight-line depreciation over remaining asset life of 36.5 years from 1 January 2000									
Non Capital Costs	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	9.37	10.56	12.14	15.19	12.56	12.88	13.22	13.56	13.92	14.28

375. The Authority also made assumptions in the determination of Total Revenue that differ in two further respects from GGT's determination of Total Revenue set out in its submission of 17 December 2002:
- correction of the assumed remaining economic life of the pipeline for depreciation purposes (as described in paragraph 316); and
 - correction of inconsistent assumptions as to timing of costs and revenues in GGT's net present value model so that all costs and revenues are assumed to occur at the end of each year (GGT in its model had assumed New Facilities Investment to occur in the middle of each year and all other costs and revenues to occur at the end of each year).
376. In the Amended Draft Decision, the Authority determined that a Total Revenue with a present value in the order of \$320.67 million for the six-year period 1 January 2000 to 31 December 2005, and in the order of \$442.36 million for the ten-year period 1 January 2000 to 31 December 2009⁷³ would conform to the principles of the Code. The Authority required amendment of the Reference Tariff to reflect a present value of Total Revenue of \$320.67 million for the period to 31 December 2005.
377. For the reasons as described above in relation to the Initial Capital Base, New Facilities Investment, Rate of Return, Depreciation and Non Capital Costs, the Authority is of the view that GGT has not incorporated the required amendment to the Reference Tariff in the revised Access Arrangement. The Authority is also not satisfied that GGT has addressed the reasons for the required amendment in the revised Access Arrangement.
378. Section 8.6 of the Code contemplates that it is possible that uncertainties in each of the cost components of Total Revenue may cause a range of values to be attributed to Total Revenue in which event the Authority is required to determine the value of

⁷³ The term of the Access Arrangement Period is discussed in detail at paragraph 799 and following.

Total Revenue within this range that is most consistent with the objectives contained in section 8.1.

379. The Authority accepts that, in this instance, consideration of a range in values of Total Revenue is necessitated by uncertainty in the values of forecast New Facilities Investment, the Rate of Return, and the forecast Non Capital Costs that would meet the requirements of section 8.37 of the Code.
380. Section 8.1 provides that a Reference Tariff and Reference Tariff Policy (and hence the Total Revenue from which the Reference Tariff is derived) should be designed with a view to achieving the following objectives:
- (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 Authority may determine the manner in which they can best be reconciled or which of them should prevail, by reference to the factors set out in section 2.24 of the Code.

381. The objective of 8.1(a) is to give the Service Provider the “opportunity” to earn a “stream of revenue” that recovers the efficient costs over the expected life of the assets used. Accordingly, a value higher in the range of Total Revenue would provide greater assurance that this objective would be met.
382. In the Epic Decision, the Supreme Court held that section 8.1(b) refers to a “workably competitive market”, being a market in which past investments and risks taken may provide some justification for prices above the efficient level. The Authority has given particular consideration to such historical factors in its determination on the value of the Initial Capital Base. As such, the Authority does not consider that these factors require further consideration in determining a value in a range of possible values for Total Revenue that result from different values not of the Initial Capital Base but rather different possible values for forecast New Facilities Investment, the Rate of Return and forecast values of Non Capital Costs. As such, the Authority considers that the objective of section 8.1(b) would point to a lower value within the possible range of values of Total Revenue, reflecting the efficient cost of Service provision given the particular value determined for the Initial Capital Base.
383. With respect to section 8.1(c), there is no evidence to suggest that any values within the range of values of Total Revenue under consideration by the Authority would not enable the safe and reliable operation of the pipeline.

384. Section 8.1(d) has two limbs: firstly an objective of not distorting investment decisions in pipeline transportation systems, and secondly in not distorting investment decisions in upstream and downstream industries. The Authority is of the view that the objective of first limb of section 8.1(d) would tend to be satisfied by higher values in the range of possible values for Total Revenue, consistent with a conservatively high estimate of the Rate of Return and seeking to ensure that the Service Provider obtains a sufficient return to motivate investment.
385. The second limb of section 8.1(d) is concerned with not distorting investment decisions in upstream and downstream industries. To the extent that a higher value of Total Revenue risks resulting in a price for pipeline Services that is in excess of efficient costs, this objective would point to lower values within the range of possible values for Total Revenue.
386. Section 8.1(e) is concerned with the interests of Users and Prospective Users and would tend to point to a lower value in the range, although this is tempered by a consideration of the longer term interests of Users and Prospective Users that require a level of Total Revenue consistent with motivating investment by the Service Provider in ongoing investment in the pipeline and which may point to higher values within the range, consistent with the objective of the first limb of section 8.1(d) as set out above.
387. Section 8.1(f) is concerned with provision of incentives to a Service Provider to reduce costs and develop the market for pipeline Services. Such incentives arise from the structure of the Reference Tariff and Incentive Mechanisms in the Reference Tariff Policy, and do not point to any particular value of Total Revenue.
388. Given that the objectives in section 8.1 conflict in their application to the determination of the Total Revenue, the Authority must determine the manner in which they can best be reconciled, or which of them should prevail, by reference to the factors in section 2.24(a) to (g).
389. Section 2.24(a) is concerned with the Service Provider's legitimate business interests and investment in the pipeline and, in accordance with the objectives of sections 8.1(a) and (d) (first limb), would point to higher values in the range of Total Revenue.
390. Section 2.24(b) relates to firm and binding contractual obligations of the Service Provider. No issue is raised as to the firm and binding contractual obligations of GGT in this case, so section 2.24(b) does not assist in the reconciliation of the section 8.1 objectives.
391. Section 2.24(c) relates to requirements for the safe and reliable operation of the pipeline. For the reasons referred to above in relation to section 8.1(c), section 2.24(c) does not assist in determining an appropriate value for Total Revenue in this case.
392. Section 2.24(d) directs attention to the "economically efficient" operation of a pipeline. This factor is consistent with the objectives of sections 8.1(b), (d) (second limb) and (e) and a lower value of Total Revenue.
393. Section 2.24(e) relates to the public interest, including the public interest in having competition in markets. For the GGP, there is some public interest in further

investment in expansion of the GGP, although there are only limited plans for expansion set out for period to the end of 2009 and during which the Access Arrangement will be in force prior to revisions. To this limited extent, section 2.24(e) is therefore generally consistent with the objective of section 8.1(d) (first limb) and a higher value of Total Revenue. There is also a public interest in efficient pricing of pipeline Services for the reason of promoting competition between fuel types in the principal geographical markets for the GGP, particularly between gas and diesel fuels for electricity generation. The Authority considers this public interest to be of substantial importance in the context of the geographical market of the GGP for reason of the importance of ensuring efficient costs of fuel to the mining industries and associated communities in these market regions. This element of the public interest is consistent with the objectives of sections 8.1(b), (d) (second limb) and (e) and a lower value of Total Revenue.

394. Section 2.24(f) is concerned with the interests of Users and Prospective Users and would point to a lower value in the range consistent with the objectives of sections 8.1(b), (d) (second limb) and (e), but tempered by the longer term interests of Users and Prospective Users in ensuring ongoing investment in the pipeline and a higher value of Total Revenue consistent with the objective of the first limb of section 8.1(d).
395. Section 2.24(g) provides for the Authority to take into account other matters that it considers relevant. The Authority has not given consideration to any such additional matters.
396. After considering the matters in section 2.24 there remains an unresolved tension between the outcomes that would be indicated for Total Revenue by each of the objectives in section 8.1. Accordingly, it is necessary for the Authority to resolve this tension and determine an appropriate value for Total Revenue.
397. The Authority is of the view that the interests of Users and Prospective Users under sections 8.1(b), (d) (second limb), (e) and 2.24(f) and the public interest under sections 8.1(b), (d) (second limb) (e), and 2.24(e) in ensuring efficient prices for pipeline Services is of particular importance in determining a value for Total Revenue. The Authority is also of the view that weight should also be given to ensuring that incentives are maintained for further investment in the pipeline, consistent with objectives of section 8.1(d) (first limb). Having taken into account these considerations, the Authority is satisfied that a value of Total Revenue that is based on the particular values of New Facilities Investment and Non Capital Costs determined by the Authority and a Rate of Return of 10.2 percent pre tax nominal – which is in the upper range but not the upper limit of the range of values of the Rate of Return that would comply with the Code – will best achieve the objectives of sections 8.1.
398. The Authority has not considered financial and operational performance indicators for the purposes of determining a value of Total Revenue under section 8.6 of the Code. A determination of Total Revenue and Reference Tariffs under the Code is predicated on the use of benchmarks of costs and financial structure for the particular pipeline rather than, necessarily, the particular costs and financial structure of the Service Provider's business. In this way, problems of the financial decisions of the regulated entity being distorted by application of the regulatory regime are largely avoided. However, the use of these benchmark assumptions means that any consideration of

financial performance indicators calculated on the basis of the same assumptions would be tautological: such an analysis would simply show that the benchmark cost assumptions made on the basis of deemed adequacy for the financial sustainability of the business are indeed adequate. Conversely, a consideration of financial indicators for the actual business of the Service Provider would potentially create the incentive problems that the use of benchmark assumptions seeks to avoid. As such, the Authority considers that it is only in special circumstances of the Service Provider that financial indicators should only be brought to account in a determination of Total Revenue. In the case of the GGP, GGT has not made any submission that such indicators should be taken into account by the Authority, and the Authority does not have any information before it that would provide reason to take into account the particular financial circumstances of GGT or the owners of the GGP in making a determination on the value of Total Revenue.

399. The Authority has therefore determined the Total Revenue for an Access Arrangement Period of 1 January 2000 to 31 December 2009 on the basis of parameter values summarised as follows.⁷⁴

Parameter Values in the Authority's determination of Total Revenue (Final Decision)

Initial Capital Base	\$500 million at 31 December 1999, including a value of linepack and working capital of \$2.58 million.									
Working Capital	45 days of average daily value of New Facilities Investment and Non Capital Costs in each quarterly period									
New Facilities Investment	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	3.64	8.39	1.12	10.14	6.14	1.58	5.26	5.43	1.61	1.72
Nominal pre-tax Rate of Return	10.2 percent									
Depreciation	Straight-line depreciation over assumed lives for asset classes with a remaining asset life for the principal pipeline assets included in the Initial Capital Base of 64.5 years from 1 January 2000									
Non Capital Costs	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	11.10	12.24	14.04	16.37	14.35	14.87	15.82	16.22	16.76	17.07

400. The Total Revenue that should be applied in the determination of the Reference Tariff for the period 1 January 2000 to 31 December 2009 is therefore a present value of \$456.82 million in dollar values at 1 January 2000.
401. Although calculated by a Net Present Value calculation, the determination of Total Revenue can be shown in terms of a cost of service calculation, as follows.

⁷⁴ In determining a value of Total Revenue, the Authority has taken into account GGT's intent to escalate the Reference Tariff for inflation on a quarterly basis (refer to paragraph and , below). As such, the Net Present Value calculation of Total Revenue has also been undertaken as a calculation in quarterly time periods. While quarterly data on Non Capital Costs and New Facilities Investment was obtained from GGT for the purpose of this calculation, in instances where the Authority has made revisions to these costs, quarterly costs have been estimated by division of annual data by four.

Authority's determination of Total Revenue (cost of service calculation, nominal \$million)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Return on Assets	48.95	48.56	48.07	47.57	47.34	46.64	45.86	45.29	44.50	43.50
Depreciation	10.01	10.22	10.43	10.60	10.91	11.12	11.29	11.55	11.78	11.35
Non Capital Costs	11.10	12.24	14.04	16.37	14.35	14.87	15.82	16.22	16.76	17.07
Total	70.07	71.02	72.54	74.54	72.60	72.63	72.97	73.06	73.04	71.92
Present Value	456.82									

Cost/Revenue Allocation and Reference Tariff

402. 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. Principles for the allocation of costs/revenues between Services are provided in sections 8.38 to 8.43 of the Code.
403. 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 set out in section 8.1 of the Code and is otherwise fair and reasonable.
404. Section 8.39 of the Code provides for the Authority 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 Authority must provide a detailed explanation of the methodology that it requires to be used.
405. Section 8.40 of the Code addresses the allocation of Costs/Revenue between Reference Services and Rebatable Services. A Rebatable Service is one where a portion of any revenue realised from sales of the Service is rebated to Users (either through a reduction in the tariff or through a direct rebate to the relevant User or Users). Under section 10.8 of the Code, a Rebatable Service is 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.
406. 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 set out in section 8.40 of the Code:

- (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.
407. 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 sections 8.38 and 8.40 of the Code.
408. Section 8.42 relates to the allocation of costs/revenue between Users. This section requires that, subject to provisions for prudent discounts in section 8.43 of the Code, the Reference Tariff be designed such that the proportion of Total Revenue recovered from 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.
409. 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 the proportion that 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).
410. The effect of section 8.43(b) is to require that a discount may only be provided to a User if the incremental revenue from that User exceeds the incremental cost of providing a Service to that User, and the incremental revenue consequently makes some contribution to the joint costs of providing pipeline Services. 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 Authority is satisfied is fair and reasonable.
411. For its proposed Access Arrangement of 15 December 1999, GGT did not determine a Reference Tariff from the Total Revenue derived pursuant to sections 8.4 to 8.6 of the Code, but rather specified a Reference Tariff independently of the Total Revenue. The Reference Tariff specified by GGT was the “A4 Tariff” that was subsequently put in place by GGT at 1 January 2000, pursuant to the State Agreement.
412. The Reference Tariff proposed by GGT comprised three charges levied on Users based on contracted capacity (MDQ), distance of gas transportation and throughput. GGT proposed a scale of charges according to the duration of the Service Agreement

with the User, with base charges specified for a 16 to 20 year contract and premiums of 5 percent, 10 percent and 20 percent added to the base charges for contract durations of 11 to 15 years, 6 to 10 years and 1 to 5 years, respectively. The Reference Tariff charges are specified in the Sixth Schedule of the proposed General Terms and Conditions, with the charges indicated in dollar values of June 1997 and subject to escalation for inflation as described in clause 9 of the General Terms and Conditions. The schedule of charges for the proposed Reference Tariff is shown in the table below.

Proposed Reference Tariff (as submitted 15 December 1999)
(\$ nominal at June 1997)

Contract Duration	Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)
1 – 5 years	0.269392	0.001556	0.000494
6 – 10 years	0.246943	0.001427	0.000453
11 – 15 years	0.235718	0.001362	0.000433
16 – 20 years	0.224494	0.001297	0.000412

413. Taking into account the escalation of tariff charges for inflation as proposed by GGT under clause 9 of the General Terms and Conditions, the proposed Reference Tariff corresponds to the following values of Reference Tariff charges at 1 January 2000.

Proposed Reference Tariff escalated to values at 1 January 2000
(\$ nominal at 1 January 2000)

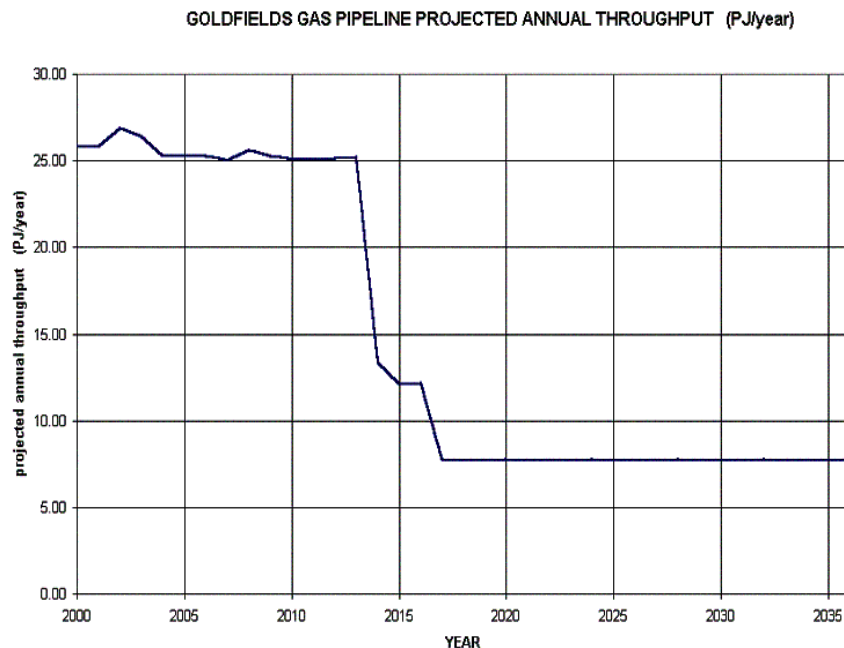
Contract Duration	Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)
1 – 5 years	0.276564	0.001597	0.000507
6 – 10 years	0.253517	0.001465	0.000465
11 – 15 years	0.241993	0.001398	0.000445
16 – 20 years	0.230471	0.001332	0.000423

414. In its submission of 17 December 2002, GGT presented a different Reference Tariff that it proposed should apply for the period 1 July 2002 to 30 June 2007. This Reference Tariff was calculated on the basis of different cost parameters and a different Total Revenue described in that submission. The Reference Tariff presented in that submission comprised the same component charges of the Reference Tariff as originally proposed. GGT did not explicitly indicate in its submission of 17 December 2002 that it intends to maintain a scale of charges according to the duration of the Service Agreement with the User, but rather indicated that it calculated the Reference Tariff indicated in this submission assuming that all Users pay the same tariff. GGT did, however, indicate that it intends to maintain the same tariff structure as tariffs previously implemented under clause 9 of the State Agreement, suggesting that GGT intends maintenance of a scale of charges according to the duration of the Service Agreement with the User.
415. In deriving a Reference Tariff from Total Revenue, forecasts of contracted capacity and throughput are necessary.

416. For its proposed Access Arrangement for 15 December 1999, GGT presented forecasts of future gas throughput as follows.

Forecast gas throughput (proposed Access Arrangement, 15 December 1999)					
Year	2000	2001	2002	2003	2004
Projected pipeline throughput TJ / day	71	71	74	72	69

417. GGT also presented a forecast of gas throughput for the period to 2036, indicated in Appendix C of the Access Arrangement Information and reproduced as follows.



418. In its submission of 17 December 2002, GGT described a calculation of a Reference Tariff based on an updated forecast of contracted pipeline capacity and throughput for the period July 2002 to June 2007, as indicated below.⁷⁵

GGT forecasts of contracted capacity and throughput (information submitted December 2002)

	2002/03	2003/04	2004/05	2005/06	2006/07
Total Contracted Capacity (MDQ, TJ/day)	108.4	100.1	97.9	98.2	98.2
Total Throughput (TJ/day)	81.5	78.5	80.3	80.5	80.5

419. While no substantiating information was provided for these forecasts in GGT's 17 December 2002 submission, the Authority obtained further information on forecasts from both GGT and the current Users of the GGP, including obtaining from GGT data on actual contracted capacity and throughput to 31 December 2003, and forecasts of contracted capacity and throughput for the period 2004 to 2009.

⁷⁵ GGT Submission, 17 December 2002, Schedule 2.

420. The data obtained from GGT on actual and forecast contracted capacity and throughput for the period to 2009 is shown in the following table.

Goldfields Gas Pipeline actual and forecast contracted capacity and throughput (information submitted March 2004)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Actual				Forecast					
Total Contracted Capacity (MDQ, TJ/day)	109.7	111.3	109.4	106.0	104.0	103.3	102.5	102.9	103.9	99.1
Total Throughput (TJ/day)	81.4	82.9	82.2	83.3	83.2	82.6	82.0	82.3	83.1	79.3

421. The Authority sought to obtain data from Users to verify the actual and forecast data provided by GGT. While insufficient data was provided by Users for this purpose, the data provided by Users together with information provided by GGT was sufficient for the Authority to make a number of observations on the forecasts provided by GGT.
- GGT's forecasts of contracted capacity are based on current contracts with Users and GGT has not attempted to make forecasts beyond the current contracts, with the exception of some minor forecast growth in contracted MDQ for two Users.
 - For several Users, GGT's forecasts for gas throughput are substantially less than forecasts of throughput made by Users themselves.
 - Actual throughput for the years 2000 to 2003 has exceeded GGT's previous forecasts for these years by amounts of greater than 10 percent.
422. Notwithstanding the absence of consideration of long-term prospects for the gas market in the forecasts, the forecasts provided by GGT suggested a market for gas transmission that is relatively stable over the period 2000 to 2009. Given the absence of sufficient data available to the Authority (reflecting some Users not having provided forecasts) to enable a revision of these forecasts according to expectations of Users, the Authority indicated in the Amended Draft Decision that it was prepared to accept the forecasts provided by GGT for the purposes of the Amended Draft Decision.
423. For the Amended Draft Decision, the Authority re-calculated the Reference Tariff corresponding to the revised calculation of Total Revenue as set out in the Amended Draft Decision and the forecasts of demand provided by GGT. The same tariff-calculation methodology as proposed by GGT in its submission of 17 December 2002 was used by the Authority. In addition, the Authority has taken into account the envisaged intent of GGT to maintain a scale of charges according to the duration of the Service Agreement with the User, and the Authority calculated this scale of charges on the basis of the actual durations of existing contracts.
424. Consistent with considerations of possible Access Arrangement Periods as set out in the Amended Draft Decision, the Authority determined the Reference Tariffs that would apply for the six year period of 1 January 2000 to 31 December 2005 and the ten year period of 1 January 2000 to 31 December 2009.

425. The Reference Tariff charges determined by the Authority for the purposes of the Amended Draft Decision were as follows, together with an indicative tariff for gas transmission to “Kalgoorlie South” shown for each case.

Reference Tariff determined by the Authority (Amended Draft Decision)
(Dollar values as at 1 January 2000, excluding GST)

Contract Duration	Toll (\$/GJ of Contracted MDQ)	Capacity Reservation (\$/GJ of Contracted MDQ/km)	Throughput (\$/GJ km of Throughput/km)	Indicative Tariff at Kalgoorlie (\$/GJ, 1378km, 85% load factor)
Access Arrangement Period of 6 years: 1 January 2000 to 31 December 2005				
1 – 5 years	0.238058	0.001372	0.000402	3.06
6 – 10 years	0.218220	0.001257	0.000368	2.80
11 – 15 years	0.208301	0.001200	0.000352	2.68
16 – 20 years	0.198382	0.001143	0.000335	2.55
Access Arrangement Period of 10 years: 1 January 2000 to 31 December 2009				
1 – 5 years	0.229753	0.001322	0.000384	2.94
6 – 10 years	0.210607	0.001212	0.000352	2.70
11 – 15 years	0.201034	0.001157	0.000336	2.58
16 – 20 years	0.191460	0.001102	0.000320	2.45

426. Subsequent to the Amended Draft Decision, GGT has submitted revised demand data and forecasts to the Authority, with total contracted capacity and throughput as follows.

Goldfields Gas Pipeline actual and forecast contracted capacity and throughput (information submitted November and December 2004 and February 2005)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Actual					Forecast				
Total Contracted Capacity (MDQ, TJ/day)	90.5	91.3	94.6	93.5	97.0	105.6	108.4	110.1	109.9	107.9
Total Throughput (TJ/day)	81.4	83.0	82.2	83.3	86.1	89.8	92.1	93.5	93.4	91.7
Implied average load factor (%)	90	91	87	89	89	85	85	85	85	85

427. GGT has indicated in submissions that the forecast throughput for the period 2005 to 2009 has been derived by applying an assumed load factor of 85 percent to the forecast of contracted MDQ. GGT submits that this assumed load factor is the approximate average load factor evident from recent use of the pipeline.
428. The Authority notes that actual MDQ for the period 2000 to 2003 as indicated by GGT in data submitted in December 2004 and February 2005 is substantially less than stated in data provided by GGT in March 2004. The Authority has provided Users

with the opportunity to comment on the historical MDQ data supplied by GGT and Users have not raised material concerns with the most recently provided data.

429. The Authority has also considered the historical and forecast throughput data provided by GGT and notes that, based on analysis of the data provided in December 2004 and February 2005, the load factor of 85 percent assumed by GGT in making its throughput forecast is substantially less than the average load factor of close to 90 percent evident from historical throughput for the period 2000 to 2004. Given this discrepancy, the Authority requested submissions from Users on the forecasts (for each User) being proposed by GGT. The submissions from Users indicated that throughput is projected to continue at levels equivalent to an average load factor of about 90 percent.
430. The Authority therefore does not accept the revised throughput forecast provided by GGT and has calculated a throughput forecast for the period 2005 to 2009 using the average historical load factor for each User⁷⁶ in determining a throughput forecast, based on the MDQ forecasts of GGT for each User. There are three “new” Users of the pipeline for which there is limited or no historical data on load factors. While these Users have provided the Authority with forecasts of MDQ and throughput, the forecasts are not readily verifiable and are subject to variability with the timing of project developments. As the additional loads for these Users are small, GGT’s assumed load factor of 85 percent has been adopted by the Authority in deriving forecasts for these Users. The forecasts thus derived by the Authority are as follows.

Actual and forecast contracted capacity and throughput as revised by Authority

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Actual					Forecast				
Total Contracted Capacity (MDQ, TJ/day)	90.5	91.3	94.6	93.5	97.0	105.6	108.4	110.1	109.9	107.9
Total Throughput (TJ/day)	81.4	83.0	82.2	83.3	86.1	93.7	96.4	97.7	97.3	95.7
Implied average load factor (%)	90	91	87	89	89	89	89	89	89	89

431. In its revised Access Arrangement and in associated submissions to the Authority, GGT has included a Reference Tariff reflecting proposed revisions in the calculation of Total Revenue and in demand forecasts. In doing so, GGT has maintained the tariff structure of the proposed Access Arrangement, with component charges of the toll charge, reservation charge and throughput charge. GGT has, however, abandoned its previous proposal for different tariffs for different contract durations and has determined a single Reference Tariff across contracts of all durations. The revised Reference Tariff is set out in the table below, stated in both dollar values of 1 January 2005 (as submitted by GGT) and in dollar values of 1 January 2000. The revised tariff charges are between 120 and 150 percent of the (inflation indexed) tariff charges required under the Amended Draft Decision.

⁷⁶ Determined from MDQ and throughput data provided by GGT and considered for each User individually.

GGT revised Reference Tariff at 1 January 2000 and 1 January 2005 (excluding GST)

Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)	Indicative Tariff at Kalgoorlie (\$/GJ, 1378 km, 85% load factor)
\$ nominal at 1 January 2000			
0.292473	0.001720	0.000462	3.77
\$ nominal at 1 January 2005			
0.336573	0.001979	0.000532	4.34

432. While the Authority notes that one User has opposed the revised tariff structure that does not provide for a lower tariff for longer contract terms, the Authority takes the view that as almost all gas transmission in the GGP occurs under long term contracts, the revised tariff structure does not materially prejudice the interests of any Users relative to the tariff that would be determined under the structure initially proposed.
433. The Authority has re-calculated the Reference Tariff in accordance with the determinations of the Authority on the Total Revenue and forecasts of pipeline use. The Reference Tariff determined by the Authority is the tariff that would have applied in the first quarter of 2000. This tariff and the inflation-escalated tariff that would apply at 1 January 2005 are as follows.

Reference Tariff determined by the Authority (excluding GST)

Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)	Indicative Tariff at Kalgoorlie (\$/GJ, 1378 km, 85% load factor)
\$ nominal at 1 January 2000			
0.200143	0.001143	0.000298	2.50
\$ nominal at 1 January 2005			
0.229573	0.001311	0.000342	2.87

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The Reference Tariff should be revised to be as follows:

Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)
\$ nominal at 1 January 2000		
0.200143	0.001143	0.000298
\$ nominal at 1 January 2005		
0.229573	0.001311	0.000342

and reflecting the following:

Initial Capital Base	\$500 million at 31 December 1999, including a value of linepack and working capital of \$2.58 million.									
Working Capital	45 days of average daily value of New Facilities Investment and Non Capital Costs in each quarterly period									
New Facilities Investment	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	3.64	8.39	1.12	10.14	6.14	1.58	5.26	5.43	1.61	1.72
Nominal pre-tax Rate of Return	10.2%									
Depreciation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	10.01	10.22	10.43	10.60	10.91	11.12	11.29	11.55	11.78	11.35
Non Capital Costs	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	11.10	12.24	14.04	16.37	14.35	14.87	15.82	16.22	16.76	17.07

Reference Tariff Variation and Incentive Mechanisms

434. The Code provides for variation in Reference Tariffs within an Access Arrangement Period in two ways:

- variation in Reference Tariffs according to principles such as a predetermined price path or realised cost and sales outcomes for the Service Provider; and
- implementation of an Approved Reference Tariff Variation Method.

435. Provisions of the Code relevant to variation in Reference Tariffs within an Access Arrangement Period are set out below.

436. Section 8.3 of the Code provides for the Service Provider to have discretion as to the manner in which Reference Tariffs vary within an Access Arrangement Period:

- 8.3 Subject to section 8.3A and to the Relevant Regulator being satisfied that it is consistent with the objectives contained in section 8.1, the manner in which a Reference Tariff may vary within an Access Arrangement Period through the implementation of a Reference Tariff Policy is within the discretion of the Service Provider. For example, the Reference Tariff Policy may

specify that Reference Tariffs will vary within an Access Arrangement Period through the implementation of:

- (a) a Cost of Service Approach;
- (b) a Price Path Approach;
- (c) a Reference Tariff Control Formula Approach;
- (d) a Trigger Event Adjustment Approach; or
- (e) any variation or combination of the above.

437. The different approaches are defined in section 10.8 of the Code as follows.

Cost of Service Approach means a Reference Tariff Variation Method whereby initial Reference Tariffs are set on the basis of the anticipated costs of providing the Reference Services and are adjusted continuously in light of actual outcomes (such as sales volumes and actual costs) to ensure that the Reference Tariffs recover the actual costs of providing the Reference Services.

Reference Tariff Control Formula Approach means a Reference Tariff Variation Method whereby an initial set of Reference Tariffs may vary over the Access Arrangement Period in accordance with a specified formula or process.

Price Path Approach means a Reference Tariff Variation Method whereby Reference Tariffs are determined in advance for the Access Arrangement Period to follow a path or paths over time forecast to deliver a revenue stream, with that price path or paths not being adjusted to account for subsequent events until the commencement of the next Access Arrangement Period.

Trigger Event Adjustment Approach means a Reference Tariff Variation Method whereby Reference Tariffs are varied in the manner specified in a Reference Tariff Policy upon the occurrence of a Specified Event.

438. Sections 8.3A to 8.3H of the Code contain further provisions on implementation of an Approved Reference Tariff Variation Method.

8.3A A Reference Tariff may vary within an Access Arrangement Period only through implementation of the Approved Reference Tariff Variation Method as provided for in sections 8.3B to 8.3H.

- 8.3B
- (a) If a Specified Event occurs the Service Provider must, within the time provided for in the Reference Tariff Policy, provide a notice to the Relevant Regulator containing the information set out in section 8.3C.
 - (b) If the Service Provider otherwise wishes to vary a Reference Tariff in accordance with the Approved Reference Tariff Variation Method, the Service Provider must provide a notice to the Relevant Regulator containing the information set out in section 8.3C.

8.3C The Service Provider's notice under section 8.3B must contain:

- (a) the Service Provider's proposed variations to the Reference Tariff and the proposed effective date for those variations; and
- (b) an explanation of how the variations proposed are consistent with the Approved Reference Tariff Variation Method contained in the Reference Tariff Policy.

Notwithstanding any other section of the Code, the Relevant Regulator must make public, and must provide the Code Registrar with a copy of, any information provided under paragraphs (a) and (b) above.

8.3D Unless the Relevant Regulator has disallowed the variation under section 8.3E, the Reference Tariff will be varied automatically on and from the later of:

- (a) the date specified in a notice from the Service Provider given in accordance with section 8.3B;
- (b)
 - (i) if the Reference Tariff Policy specifies a minimum notice period for the variation, the expiry of that period after the date of the notice from the Service Provider given in accordance with section 8.3B; or
 - (ii) if the Reference Tariff Policy does not specify a minimum notice period for the variation, 35 days after the date of the notice from the Service Provider given in accordance with section 8.3B,

but if, before the end of the relevant period in paragraph (i) or (ii) above, the Relevant Regulator notifies the Service Provider that it requires additional information from the Service Provider, which the Relevant Regulator has reason to believe may assist the Relevant Regulator to determine whether the variations proposed are consistent with the Approved Reference Tariff Variation Method, the relevant period will be extended by the number of days commencing on the day on which the Relevant Regulator gave notice to the Service Provider and ending on the day on which the Relevant Regulator receives the additional information from the Service Provider.

8.3E The Relevant Regulator may, by notice to the Service Provider before the variation is due to come into effect under section 8.3D, disallow a variation of a Reference Tariff. The Relevant Regulator may disallow a variation only if the Relevant Regulator considers, on reasonable grounds, that the proposed variation is inconsistent with, or not permitted under, the Approved Reference Tariff Variation Method. If the Relevant Regulator disallows a variation because it considers that it is inconsistent with, or not permitted under, the Approved Reference Tariff Variation Method, the Relevant Regulator may specify a variation that is consistent with the Approved Reference Tariff Variation Method. Any such variation comes into effect on the date determined in accordance with section 8.3D.

8.3F The Relevant Regulator must publish its reasons for:

- (a) allowing a variation of a Reference Tariff (including if the variation is allowed because of the effluxion of time under section 8.3D);
- (b) disallowing a variation of a Reference Tariff; or
- (c) specifying any variation specified by the Relevant Regulator under section 8.3E,

at the time of allowing, disallowing or specifying that variation.

8.3G If a Specified Event occurs and the Service Provider does not serve a notice on the Relevant Regulator as required by section 8.3B(a), then the Relevant Regulator may itself vary the Reference Tariff concerned but only in accordance with the Approved Reference Tariff Variation Method. Any such variation comes into effect on the date specified in, or determined in accordance with, the Access Arrangement. The Relevant Regulator must publish its reasons for any variation of the Reference Tariff made under this section 8.3G at the time of making that variation.

8.3H The Relevant Regulator may:

- (a) on application by the Service Provider, grant extensions to any time period in sections 8.3B to 8.3G that applies to the Service Provider; and
- (b) extend any time period in section 8.3G that applies to the Relevant Regulator.

439. The Code also provides for the Reference Tariff Policy of an Access Arrangement to include an Incentive Mechanism.

440. Sections 8.44 to 8.46 of the Code set out the principles for establishing an Incentive Mechanism within the Reference Tariff Policy and the objectives that the Incentive Mechanism should seek to meet.

441. Section 8.44 of the Code states that a Reference Tariff Policy should, wherever the Relevant 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 from, amongst other things, lower Non Capital Costs or greater sales of Services than forecast.
442. Section 8.45 of the Code provides 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.
443. Section 8.46 of the Code 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(a) 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).
444. In the proposed Access Arrangement submitted on 15 December 1999, GGT proposed a Reference Tariff that is the same as the tariff established under the State Agreement and applied from 1 January 2000 (the A4 Tariff), and proposed that the charges of this tariff continue to be fully escalated at quarterly intervals for inflation. The formula for escalation of charges is contained in clause 9.8 of the General Terms and Conditions. This formula, with a correction as subsequently submitted, is as follows.

$$C_t = C_b \times \frac{CPI_{t-2}}{CPI_b}$$

where:

C_t is the relevant charge in the quarter t in which the Billing Period occurs;

C_b is the relevant charge applicable at the date of Service Agreement;

CPI_{t-2} is the Consumer Price Index (CPI) for the quarter ended three months prior to the commencement of quarter t ; and

CPI_b is the base CPI, and is 120.2.

445. The Authority understands that the Reference Tariff included in the proposed Access Arrangement submitted in December 1999 is expressed in dollar values at 1 October 1997, and that the “base CPI” of 120.2 is the June 1997 quarter CPI of the Australian Bureau of Statistics for the All Groups Weighted Average of Eight Capital Cities.⁷⁷
446. Incentive structures are addressed in section 7.6 of the Access Arrangement Information of 15 December 1999. GGT has proposed a “price path” approach to the specification of the Reference Tariff, where the tariff is set in advance for the entire Access Arrangement Period on the basis of anticipated revenues and costs. GGT indicates that it considers that these revenues and costs constitute a benchmark for performance, and that if GGT’s performance is better than anticipated, its returns will be improved, if not, they will decline.
447. In its submission of 17 December 2002, GGT did not explicitly address the escalation of tariff charges for inflation. An objective of full escalation for inflation on an annual (rather than quarterly) basis was, however, implied by the tariff model presented as Schedule 2 of this submission.
448. The Authority noted in the Amended Draft Decision that GGT’s proposed price path approach in specification of the Reference Tariff is, in effect, a “CPI-X” provision for tariff variation with the “X factor” equal to zero.
449. The Authority also noted that Australian regulatory decisions under the Code have generally not used tariff escalation mechanisms such as CPI-X price caps as “incentive mechanisms” per se, i.e. to provide incentives for cost reduction. While the mechanisms for annual tariff variation have for most Access Arrangements involved CPI-X constraints on annual tariff variations, the value of “X” has typically

⁷⁷ CPI is defined by GGT in the proposed Access Arrangement Appendix 1, p2 as: “...the Consumer Price Index (All Groups Weighted Average of Eight Capital Cities) as published by the Australian Bureau of Statistics for any Quarter and if such Index ceases to be published, any official replacement index published by the Australian Bureau of Statistics and, in the absence of any official replacement index, an index nominated by GGT which is prepared and published by a government authority or independent third party and which most closely approximates the Consumer Price Index”.

not reflected productivity improvements beyond those already forecast by the Service Provider and incorporated into cost and demand forecasts. Rather, the X value has been derived as a means of achieving “glide paths” for tariffs so that there is a smooth path of tariff changes over an Access Arrangement Period while preserving the present value of a target revenue stream.

450. The Authority recognised that the Incentive Mechanism of a tariff path as proposed by GGT arises from the prospect of GGT capturing, over the remainder of an Access Arrangement Period, the benefits of cost reductions or demand growth that were not forecast at the time of approval of the Access Arrangement. The benefits of cost reductions and demand growth may then be passed on to Users in the next Access Arrangement Period.
451. The Authority therefore took the view that the price path approach taken by GGT in specification of the Reference Tariff, and the Incentive Mechanism inherent in this approach, is in general accordance with the relevant provisions of the Code. However, the Authority stated that with a specification of a Reference Tariff at 1 January 2000, the formula for escalation of charges will require amendment to provide for a correction for the inflationary impact of introduction of the GST (from which GGT is sheltered by itself claiming GST rebates on inputs). Taking into account the implied proposal in GGT’s submission of 17 December 2002 of annual rather than quarterly escalation of tariffs, the Authority required in the Amended Draft Decision amendment of the proposed Access Arrangement as follows.

Clause 9.8 of the General Terms and Conditions should be amended to provide a formula for escalation of the component charges of the Reference Tariff to be as follows. (Amendment 4)

$$C_t = C_{t-1} \times \left(\frac{CPI_{t-1}}{CPI_{t-2}} - X \right)$$

where

C_t is the relevant charge in the year t ;

C_{t-1} is the relevant charge in the year preceding year t ;

CPI_{t-1} is the Consumer Price Index (CPI) for the September quarter of the year prior to year t ;

CPI_{t-2} is the Consumer Price Index (CPI) for the September quarter of the year two years prior to year t ; and

X is 0.0275 when t is the year 2001 and is zero otherwise. (Amendment 4)

452. GGT submits that despite the indication in its submission of 17 December 2002 of annual escalation of tariff charges for inflation, its intent is for quarterly escalation of charges, and the required amendment is not necessary. GGT has, however, revised the formula for escalation of charges, as follows.

9.8 Tariffs and Charges Adjustment for Inflation

For the purpose of this clause, the charge applicable in any Billing Period shall be the charge specified in the Order Form adjusted by:

any changes in CPI calculated as follows:

$$C_t = C_b \times \frac{CPI_{t-2}}{CPI_b}$$

Where:

C_t is the relevant charge in the Quarter t in which the Billing Period occurs;

C_b is the relevant charge as specified in the Sixth Schedule; ~~applicable at the Date of the Service Agreement~~

CPI_{t-2} is the CPI for the Quarter ended three months prior to the commencement of Quarter t ; and

CPI_b is the base CPI, and is 144.8 as at the quarter ending 30 June 2004 ~~120.2~~.

453. The Authority is satisfied that GGT has addressed the reasons for Amendment 4 of the Amended Draft Decision by indicating its intent to maintain quarterly escalation of tariff charges, subject to determination of the Reference Tariff Charges taking into account that charges will be escalated quarterly.⁷⁸ The Authority will, however, require that the Reference Tariff be specified at 1 January 2000, being the date that an Access Arrangement was intended to be in place for the GGP. The Authority will therefore require that the formula for escalation of the tariff charges be amended to provide for escalation from 1 January 2000 and that the escalation include a correction for the inflationary effect of introduction of the goods and services tax in 2000.

Final Decision Amendment 4

Clause 9.8 of the General Terms and Conditions should be amended to indicate that the component charges of the Reference Tariff in the Quarter beginning 1 April 2000 and in each subsequent Quarter are to be determined as follows.

$$C_t = C_{t-1} \times \left[\frac{CPI_{t-2}}{CPI_{t-3}} - X \right]$$

where

C_t is the relevant charge in the Quarter t in which the Billing Period occurs;

C_{t-1} is the relevant charge in the immediately preceding Quarter;

CPI_{t-2} is the CPI for the Quarter ended three months prior to the commencement of Quarter t ;

CPI_{t-3} is the CPI for the Quarter ended six months prior to the commencement of Quarter t ; and

X is 0.0275 when t is the Quarter beginning 1 January 2001 and is zero otherwise.

⁷⁸ The Reference Tariff determined by the Authority and indicated in paragraph 433 of this Final Decision has been determined taking into account that the tariff will be escalated quarterly for inflation.

454. GGT has revised the General Terms and Conditions to make provision for change in the Reference Tariff in accordance with a Reference Tariff Variation Mechanism under clauses 8.3A to 8.3H of the Code. This is addressed in relation to clause 9 of the General terms and Conditions (paragraph 596 and following of this Final Decision).

Terms and Conditions

Requirements of the Code

455. Section 3.6 of the Code requires that:

- 3.6 An Access Arrangement must include the terms and conditions on which the Service Provider will supply each Reference Service. The terms and conditions included must, in the Relevant Regulator's opinion, be reasonable.

Access Arrangement Proposal

456. GGT addressed the requirement for terms and conditions in section 8 of the proposed Access Arrangement and in the "General Terms and Conditions" provided as Appendix 3 of the proposed Access Arrangement.

457. Clause 8.1 of the proposed Access Arrangement indicates that the terms and conditions on which the Reference Service will be provided comprise the terms and conditions contained in:

- (a) the executed and accepted Order Form;
- (b) any Conditions that may apply; and
- (c) the General Terms and Conditions.

458. Clause 8.2 of the proposed Access Arrangement allows for provision of a Service to be made conditional on the Prospective User satisfying conditions precedent or conditions subsequent to provision of the Service:

8.2 Conditions

- (a) GGT may notify a Prospective User that GGT is prepared to make available a Service subject to specified Conditions being satisfied as conditions precedent or observed as conditions subsequent.
- (b) The Conditions may relate to any matter reasonably required by GGT to protect or secure its position under any proposed Service Agreement, including:
 - (1) the occurrence of a defined event including installation and commissioning of Developable Capacity or third party equipment, processing facilities or infrastructure;
 - (2) a Performance Security being provided by the Prospective User, any of its Related Corporations or any other person on terms acceptable to GGT in order to satisfy the requirements of the request for Service; and
 - (3) copies of insurance policies or other evidence reasonably required by GGT being provided, which provide reasonable indication to GGT that the Prospective User has insurance policies sufficient to satisfy the indemnities which the Prospective User will be required to provide under the proposed Service Agreement.

- (c) Unless the Prospective User notifies GGT to the contrary within 7 Business Days of receiving notice of the Conditions, the Prospective User is deemed to have accepted and agreed to be bound by the Conditions notified by GGT, which will form part of the Service Agreement.

459. Further clauses of section 8 of the proposed Access Arrangement relate to the date on which a Service Agreement comes into effect, the commencement date of application of the Toll and “capacity reservation” components of the Reference Tariff, and provision for resolution of disputes as to terms and conditions.

460. The General Terms and Conditions for provision of the Reference Service are set out in clauses titled as follows.

- 1 Introduction
 - 2 Agreement To Provide And To Accept Service
 - 3 Term Of Agreement
 - 4 Service
 - 5 Forecasts And Nomination Procedure
 - 6 Connection, Inlet Point And Outlet Points
 - 7 Quantity Variations
 - 8 Interruption Of Service
 - 9 Transportation Tariff And Charges
 - 10 Quality And Delivery Conditions
 - 11 Measurement Of Gas
 - 12 Representations And Warranties Of The User
 - 13 Invoicing And Payment
 - 14 Possession, Responsibility And Title
 - 15 Records And Information
 - 16 Termination
 - 17 Force Majeure
 - 18 Liabilities
 - 19 Insurances
 - 20 Assignment And Transfers Of Capacity
 - 21 Confidential Information
 - 22 Dispute Resolution
 - 23 Arbitration
 - 24 Notices
 - 25 Waiver
 - 26 Entire Agreement
 - 27 Severability
 - 28 Governing Law
- First Schedule: Technical Requirements For Inlet Facilities
- Second Schedule: Technical Requirements For Outlet Facilities
- Third Schedule: Test Procedures
- Fourth Schedule: Inlet Gas Specification
- Fifth Schedule: Gas Pipeline Services Performance Bond
- Sixth Schedule: Statement Of Tariffs And Charges

General Matters in Relation to the Terms and Conditions

461. GGT submitted that the General Terms and Conditions are substantially the same as those currently offered in relation to third-party access under relevant provisions of the State Agreement. Further, GGT submitted that it is a relevant consideration for the Authority that the General Terms and Conditions are based upon those established under the State Agreement because such terms and conditions were “established in circumstances which reflect the best possible representation of the interests of both the pipeline’s customers and owners [and] have been in operation without serious contention since inception”. GGT also submitted that the Authority should take those circumstances into account in considering “the interest and expectations of the Service Provider and Users”.
462. In the Amended Draft Decision, the Authority noted that it is incumbent upon it, under the provisions of section 3.6 of the Code, to reach a view on whether the proposed terms and conditions set out in the Access Contract Terms and Conditions are reasonable. Whilst the above matters raised by GGT were regarded by the Authority as relevant to the Authority’s assessment, the Authority did not consider them to be determinative. Further, the absence of complaints in relation to the terms and conditions of previous or existing contracts or arrangements was not considered to be a complete answer to the question of reasonableness.
463. To reach a view on whether the General Terms and Conditions are reasonable, the Authority considered the effect of each of the terms and conditions, considered submissions on the proposed terms and conditions, and took into account the factors set out in section 2.24 of the Code so far as they are applicable. The Authority’s deliberations and views on various clauses of the terms and conditions are indicated below, in the same order as the clauses appear in the General Terms and Conditions.
464. As an initial matter in relation to the General Terms and Conditions, the Authority considered the proposed provisions for terms and conditions to be applied in a Service Agreement for the Reference Service that are in addition to the General Terms and Conditions set out in Appendix 3 of the proposed Access Arrangement.
465. In the Authority’s view, the effect of clauses 8.1(b) and 8.2(b) of the proposed Access Arrangement was to enable GGT to attach conditions to a Service Agreement for provision of a Reference Service in addition to those terms and conditions set out in the General Terms and Conditions.
466. Clause 8.1 of the proposed Access Arrangement provides for the terms and conditions on which the Reference Service is to be provided to include conditions contained in the accepted Order Form (which is the Order Form contained in Appendix 2.2 of the proposed Access Arrangement), any conditions established under clause 8.2 of the proposed Access Arrangement and the General Terms and Conditions.
467. The Order Form gives effect to the terms in clauses 6.4(d), 6.5(e), 6.5(f), 6.6(b)(2) and 8.1 of the proposed Access Arrangement. In this way, the Order Form is an extension of these clauses. The Order Form makes provision for the setting of conditions in relation to provision of documents by the User as evidence of the User’s legal status, legal capacity, creditworthiness, and access to gas supplies; indication by the User of willingness to meet investigation costs; and indication by the User of

willingness to meet developable-capacity costs. The only new condition (which is not already specified in the proposed Access Arrangement terms) is that the Order Form by itself is a warranty by a User that all the information provided to GGT relating to:

- any Enquiry Form;
- the Order Form;
- the satisfaction of any Conditions; or
- under or for the purposes of a Service Agreement,

is true and accurate and not misleading in a material way.⁷⁹

468. Accordingly, the Authority was satisfied that clause 8.1 of the proposed Access Arrangement is a reasonable requirement.
469. Clause 8.2 of the proposed Access Arrangement provides for GGT to establish conditions precedent and conditions subsequent that must be satisfied by a User entering into a Service Agreement. Clause 8.2(b) indicates that these conditions are conditions on a User and GGT entering into a Service Agreement rather than being terms and conditions for provision of the Service, per se. However, clause 8.2(c) of the Access Agreement Terms and Conditions states that the Conditions in clause 8.2 will form part of the Service Agreement, which is defined in Appendix 1 of the proposed Access Arrangement as the agreement for the provision of a Reference Service.
470. The Authority took the view that section 3.6 of the Code requires that any terms and conditions for provision of a Reference Service will be stated in the terms and conditions for that Reference Service that comprise part of the Access Arrangement and are not a matter for future determination, and that the reasonableness or otherwise of those conditions will be a matter for the Authority to assess. Accordingly, in the Amended Draft Decision the Authority determined that clause 8.2(b) of the proposed Access Arrangement is inconsistent with the requirements of the Code and required the following amendment.

Clause 8.2(b) of the proposed Access Arrangement should be amended to remove GGT's discretionary power to attach additional conditions to a Service Agreement for provision of Reference Services, other than those conditions stated in the Access Arrangement, including in Appendix 3 of the Access Arrangement. (Amendment 5)

471. GGT included in its revised Access Arrangement the following revisions to clause 8.

8 TERMS AND CONDITIONS FOR PROVIDING SERVICE

8.1 Terms of Reference Service

The terms and conditions on which the Reference Service is to be provided by GGT to a Prospective User are those contained in:

- (a) ~~the executed and accepted~~ Order Form executed by the Prospective User and accepted by GGT;

⁷⁹ Clause 21 – Appendix 2.2 Access Agreement.

- (b) any Conditions that may apply; and
- (c) the General Terms and Conditions.

~~8.2~~ Conditions

- ~~(a) GGT may notify a Prospective User that GGT is prepared to make available a Service subject to specified Conditions being satisfied as conditions precedent or observed as conditions subsequent.~~
- ~~(b) The Conditions may relate to any matter reasonably required by GGT to protect or secure its position under any proposed Service Agreement, including:

 - ~~(1) the occurrence of a defined event including installation and commissioning of Developable Capacity or third party equipment, processing facilities or infrastructure;~~
 - ~~(2) a Performance Security being provided by the Prospective User, any of its Related Corporations or any other person on terms acceptable to GGT in order to satisfy the requirements of the request for Service; and~~
 - ~~(3) copies of insurance policies or other evidence reasonably required by GGT being provided, which provide reasonable indication to GGT that the Prospective User has insurance policies sufficient to satisfy the indemnities which the Prospective User will be required to provide under the proposed Service Agreement.~~~~
- ~~(c) Unless the Prospective User notifies GGT to the contrary within 7 Business Days of receiving notice of the Conditions, the Prospective User is deemed to have accepted and agreed to be bound by the Conditions notified by GGT, which will form part of the Service Agreement.~~

~~8.3.2~~ Service Agreement

~~GGT and~~ ~~the~~ Prospective User becomes bound to the Service Agreement and bound to satisfy or observe all Conditions:

- ~~(a) in the case where Spare Capacity exists to satisfy the request for the Service, from the date that GGT becomes bound by the Service Agreement; and~~
- ~~(b) in the case where Spare Capacity does not exist to satisfy the request for the Service and the Prospective User has indicated a preparedness to contribute reasonable costs towards Investigations and installation of Developable Capacity, from the date that GGT gives a notification.~~

8.3 Conditions

- (a) GGT may notify a Prospective User that GGT is prepared to make available a Service subject to specified Conditions being satisfied as conditions precedent or observed as conditions subsequent.
- (b) The Conditions may relate to any matter reasonably required by GGT to protect or secure its position under any proposed Service Agreement, including:

 - (1) the occurrence of a defined event including installation and commissioning of Developable Capacity or third party equipment, processing facilities or infrastructure;
 - (2) a Performance Security being provided by the Prospective User, any of its Related Corporations or any other person on terms acceptable to GGT in order to satisfy the requirements of the request for Service; and
 - (3) copies of insurance policies or other evidence reasonably required by GGT being provided, which provide a reasonable indication to GGT that the Prospective User has insurance policies sufficient to satisfy the indemnities

which the Prospective User will be required to provide under the proposed Service Agreement.

(c) Unless the Prospective User notifies GGT to the contrary within 7 Business Days of receiving notice of the Conditions, the Prospective User is deemed to have accepted and agreed to be bound by the Conditions notified by GGT, which will form part of the Service Agreement.

8.4 Alternative Date of Agreement

Notwithstanding the foregoing, GGT and a Prospective User may agree on an alternative date for becoming mutually bound to a Service Agreement.

8.5 Toll and Capacity Reservation Tariff

The Toll Tariff and Capacity Reservation Tariff apply from the later of the Date of Service Agreement or satisfaction or waiver of any Conditions, in the nature of conditions precedent.

~~8.6 — Dispute as to Terms~~

~~Any dispute as to the terms and conditions on which the Reference Service are to be provided may be resolved as a Section 6 Dispute.~~

472. The substantive revisions to clause 8 comprise only the deletion of clause 8.6, which GGT submits is for the purpose of clarity as this clause is simply declaratory of provisions of the Code. Clause 8.2 of the proposed Access Arrangement has been shifted to become clause 8.3, but is otherwise unchanged.
473. GGT has not incorporated Amendment 5 into its revised Access Arrangement and indicates in a submission to the Authority its opposition to the requirement of Amendment 5 for the reason that the provision to attach conditions to a Service Agreement for provision of a Reference Service in addition to those terms and conditions set out in the Access Arrangement is reasonable, and is consistent with similar provisions approved for Access Arrangements for other Western Australian pipelines.
474. The Authority is not satisfied that GGT has, in its submission, addressed the reasons of the Authority in requiring Amendment 5. The principle concern of the Authority was that clause 8.1 of the Access Arrangement provides for inclusion in the terms and conditions of a Service Agreement for the Reference Service of “conditions precedent” or “conditions subsequent” to the Service being provided. Clause 8.2(b) of the Access Arrangement provides examples of matters that may be addressed by these additional conditions, but is not limited to these examples. The Authority took the view that a provision for inclusion of additional terms and conditions is not permitted by the Code.
475. The Authority also took the view that the required amendment is not contrary to the approved Access Arrangement for other gas pipelines in Western Australia. For example, the access arrangement for the Mid West and South West Gas Distribution Systems, cited by GGT, provides for the owner of the distribution systems to impose a requirement for pre-conditions to be satisfied before an access arrangement is entered into. However, these pre-conditions do not become part of the terms and conditions of the Service Agreement for the relevant Reference Services.
476. GGT has not responded explicitly to these reasons. As such, the Authority takes the view that GGT has neither incorporated Amendment 5 nor otherwise addressed the

matters that the Authority identified in its Amended Draft Decision as being the reasons for requiring the amendments. The Authority also accepts, however, that the required amendment may not be sufficiently clearly worded and has revised the required amendment.

Final Decision Amendment 5

Clause 8.1 of the revised Access Arrangement should be amended to indicate that the terms and conditions on which the Reference Service is to be provided by GGT to a Prospective User are those contained in the General Terms and Conditions. Clause 8.3 of the revised Access Arrangement should be amended to be expressed in certain terms and indicate that GGT may, prior to entering into a Service Agreement with a Prospective User, require that Prospective User to satisfy reasonable requirements of GGT in respect of:

- (1) the occurrence of a defined event including installation and commissioning of Developable Capacity or third-party equipment, processing facilities or infrastructure;
- (2) a Performance Security being provided by the Prospective User, any of its Related Corporations or any other person on terms acceptable to GGT in order to satisfy the requirements of the request for Service; and
- (3) copies of insurance policies or other evidence reasonably required by GGT being provided, which provide reasonable indication to GGT that the Prospective User has insurance policies sufficient to satisfy the indemnities which the Prospective User will be required to provide under the proposed Service Agreement.

477. The Authority notes that the other revisions made to clause 8 do not materially alter the effect of clause 8 and, as such, is prepared to accept these revisions.

Term of Agreement

478. Clause 3 of the General Terms and Conditions sets out the period of a Service Agreement between GGT and a User for the provision of a Reference Service. It also provides for related matters, including the effect of the timing of additions or enhancements of the pipeline on the commencement of the Service, and termination of the Service Agreement in the event of a User failing to lodge a bond.
479. In the Amended Draft Decision the Authority addressed a single concern in respect of clause 3.2 of the General Terms and Conditions which relates to the effects on a Service Agreement of a delay in additions or enhancements to the pipeline necessary to provide the relevant Service.
480. Clause 3.2(d) of the General Terms and Conditions provides for GGT or a User to unilaterally terminate a Service Agreement where:
- any additions or enhancements to the GGP which are required to provide the Service are not operational following the expiry of 12 months from the Commencement Date ; and

- the parties cannot agree, within 30 days of the expiry of that 12 month period, to either defer the Commencement Date or reduce the scope of the Service.
481. The Authority was of the view that the effect of clause 3.2 could be to unreasonably prevent a User from accessing mechanisms of dispute resolution in the event that GGT fails to make enhancement to the GGP operational within the period of 12 months from the Commencement Date.
482. GGT submitted to the Authority that:
- clause 22.1 of the General Terms and Conditions provides for the parties, in the circumstances to which clause 3.2(d) applies, to have recourse to a dispute resolution procedure; and
 - a User would have 13 months to refer a relevant matter to dispute resolution before GGT could unilaterally terminate the Service Agreement, and, once a User had referred the matter to dispute resolution, clause 22.5 of the General Terms and Conditions would prevent GGT from unilaterally terminating the Service Agreements pending resolution of the dispute.
483. Notwithstanding GGT's submission, recourse to dispute resolution would not appear to be available under clause 22 of the General Terms and Conditions, once a Service Agreement has been terminated as there would be no agreement upon which the clause could operate. Therefore, the dispute resolution procedure would be unavailable to a User once GGT had unilaterally terminated the Service Agreement pursuant to clause 3.2 of the General Terms and Conditions.
484. Moreover, a User would not in practice have 13 months within which to refer a dispute regarding clause 3.2(d) for resolution pursuant to clause 22 of the General Terms and Conditions. Pursuant to clause 3 of the General Terms and Conditions, GGT is entitled to the full 12 month period to make the additions or enhancements to the pipeline. It may not become clear to a User that such additions or enhancements will not be made within the 12 month period until very shortly before or after the expiry of that period. The time frame of 30 days after the expiry of 12 months provided in clause 3.2(d) (after which GGT may terminate the Service Agreement) may also be insufficient time to proceed with the dispute resolution procedure in clause 22.
485. For these reasons, the Authority considered that the provision under clause 3.2(d) of the General Terms and Conditions for GGT to unilaterally terminate the Service Agreement is not reasonable. The following amendment was required in the Amended Draft Decision.
- Clause 3.2(d) of the General Terms and Conditions should be amended to the effect that if the parties to the Service Agreement are not able to agree on deferring the Commencement Date or a reduction in the scope of the Service, they may either terminate the Service Agreements by mutual consent or refer the matter for dispute resolution as provided for in clause 22 of the General Terms and Conditions. (Amendment 6)
486. In its revised Access Arrangement, GGT revised clause 3.2(d) of the General Terms and Conditions to incorporate Amendment 6, as follows.

3.2 Enhancements not Operational

If any additions or enhancements to the Pipeline which are required to provide the Service are not operational following the expiry of 12 Months from the Commencement Date the parties may:

- (a) agree to defer the date for commencement of that Service to another date; or
- (b) agree to the provision of a reduced scope of the Service which is feasible with the available Capacity; and
- (c) if either clause 3.2(a) or 3.2(b) applies, agree the charges that will apply to reflect the new date for commencement or the reduced scope for the Service; or
- (d) if they are unable to agree in accordance with either clause 3.2(a), (b) or (c) within 30 days after the date of expiry of the period of 12 Months, either:

(1) the Service Agreement may be terminated by written notice by either party without penalty or cost to either party; or

(2) a party may refer the matter for dispute resolution as provided for in clause 22.

487. In requiring Amendment 6 of the Amended Draft Decision, the Authority was seeking to reasonably protect the interests of the User by preventing GGT from unilaterally terminating the Service Agreement where GGT itself failed to provide additions or enhancements to the pipeline necessary to provide the Service. While GGT has incorporated the required amendment in the revised Access Arrangement, submissions from two pipeline Users expressed concern that the amendment creates a liability for the User by preventing the User from unilaterally terminating the Service Agreement. These submissions suggest that the amendment required by the Authority does not serve the interests of Users, as was expected. In light of the submissions made by Users subsequent to issue of the revised Access Arrangement, and given that the Authority has determined not to approve the revised Access Arrangement on other grounds, the Authority has decided to alter the requirement for amendment of clause 3.2(d) to address the submissions of Users and to require that a party may unilaterally terminate the Service Agreement only in the event that the matter has not been referred for dispute resolution pursuant to clause 22.

Final Decision Amendment 6

Clause 3.2 (d) of the General Terms and Conditions should be amended to the effect that if the parties to the Service Agreement are unable to agree in accordance with either clause 3.2(a), (b) or (c), then either party may refer the matter for dispute resolution as provided for in clause 22 of the General Terms and Conditions, and in the event that neither party has referred the matter for dispute resolution within 30 days after the date of expiry of the period of 12 Months, the Service Agreement may be terminated by written notice by either party without penalty or cost to either party.

Reference Service

488. Clause 4 of the General Terms and Conditions as originally proposed provides a general description of the Reference Service, indicating (in clause 4.3) that the Service provided to a particular User is defined by specification of Inlet Point, Outlet Point(s), maximum daily quantity (MDQ) and maximum hourly quantity (MHQ).

489. Clause 4.4 provides for a User to temporarily transport gas in excess of its MDQ by securing from GGT a Supplementary Quantity Option, which may be provided at GGT's sole discretion and under which gas is transported on an interruptible basis. Where there are multiple requests for Supplementary Quantity Options, GGT would meet the requests on a priority set by the time and date of the "SQO Nomination Form".
490. The Authority received submissions questioning whether GGT should be able to offer the Supplementary Quantity Options solely at its discretion and whether the terms for provision of the Supplementary Quantity Option are reasonable.
491. It appeared to the Authority that the intent of the Supplementary Quantity Option is to take advantage of a short-term ability in the pipeline system to deliver gas in excess of contracted capacity, which is dependent upon the system transient conditions created by linepack dynamic, gas receipts and gas deliveries. The Supplementary Quantity Option is thus in the nature of a "spot" Service or "authorised overrun" Service, which is provided utilising capacity that becomes available according to seasonal conditions, spare compressor power and, to some extent, other Users' unutilised capacity. Given the nature of the Supplementary Quantity Option, the Authority considered provision at the discretion of GGT to be reasonable.
492. In its revised Access Arrangement, GGT has made the following revisions to clause 4.4 of the General Terms and Conditions. GGT submits that the revisions are for the purpose of reiterating that the Supplementary Quantity Option is provided at the discretion of GGT:
- 4.4 Supplementary Quantity Option
- (a) In order that Users may correct imbalances or transport Gas in excess of their MDQ on an occasional basis, a User who has a Service Agreement for the Firm Service and who is not in default thereunder may apply to GGT at any time to take up a Supplementary Quantity Option (SQO).
 - (b) GGT will provide a SQO solely at its discretion. A SQO will be provided only to the extent that operating circumstances and requirements of the Pipeline permit. GGT will not provide a SQO in circumstances including, but not limited to, where to do so would restrict GGT from meeting all of its transportation services obligations and Used Gas requirements, or would restrict GGT from operating the Pipeline in a prudent manner.
 - (c) If GGT elects to provide an SQO it shall give notice to the User to this effect and in order to provide a SQO, GGT may will, at its sole discretion, accept from the User at the Inlet Point or deliver to the User at the Outlet Point(s) those quantities of Gas specified in the SQO Nomination Form upon GGT giving notice to the User that it will provide a SQO then the User becomes bound to pay the applicable Toll Charge and Capacity Reservation Charge whether or not the User delivers or accepts Gas in respect to the SQO.
 - (d) A SQO is interruptible in nature. If GGT interrupts, or intends to interrupt the SQO then GGT shall give notice as soon as is reasonably practical to the User and may interrupt the SQO in accordance with such notice.
 - (e) GGT will provide a SQO on a first-come, first-served priority set by the time and date of the SQO Nomination Form.
493. The revisions made by GGT do more than reiterate that a Supplementary Quantity Option is provided at the discretion of GGT. The revisions also indicate that the

Capacity Reservation Charge and Toll Charge components of the tariff applicable to the Supplementary Quantity Option (as set out in the Sixth Schedule of the General Terms and Conditions) are payable when the Supplementary Quantity Option is granted (rather than when the facility of the Supplementary Quantity Option is utilised). This revision is not considered to be materially inconsistent with the specification of the tariff for the Supplementary Quantity Option as set out in the Sixth Schedule of the General Terms and Conditions as originally proposed. On this basis, the Authority does not oppose the revisions.

Forecasts and Nomination Procedure

494. Clause 5 of the General Terms and Conditions as originally proposed specifies requirements on Users to provide GGT with annual forecasts for gas deliveries, and to make monthly nominations of gas deliveries. Clause 5 also provides for GGT to inform Users of gas imbalances and for Users to trade imbalances. The Authority had no reason to consider the provisions to be unreasonable and therefore did not require any amendments to clause 5 in the Amended Draft Decision.
495. In the revised Access Arrangement, GGT made revisions to clause 5 of the General Terms and Conditions, despite no amendment of the clause being required by the Authority in the Amended Draft Decision. The revisions are as follows.

5.1 ~~Annual~~ Monthly Forecasts

Not later than 15 Gas Days prior to the start of each Year the User will give notice to GGT of the quantities of Gas forecast to be required for delivery under the Service Agreement during each Month of the subsequent Year. Such forecasts are to be based on the User's reasonable estimate of the Daily quantities required during each Month of that Year at each Outlet Point but are not to exceed the MDQ for any Gas Day for that Outlet Point.

5.2 ~~Monthly~~ Daily Nominations

Not later than 7 days prior to the start of each Month, the User will give to GGT a nomination of the quantities of Gas required by the User to be received at the Inlet Point and delivered at each Outlet Point, on each Gas Day of that Month, which quantities shall not exceed the MHQ or the MDQ for the Inlet Point or that Outlet Point, respectively. If the User fails to make a nomination then the User's previous valid nomination shall apply.

5.3 Notification of Imbalances

(a) The User's nominations provided to GGT pursuant to clause 5.2 shall be made in good faith.

(b) If GGT acting as a reasonable and prudent pipeline operator believes that the User is not making nominations pursuant to clause 5.2 in good faith, then GGT may give a notice to the User ("Variance Notice") requiring the User to nominate in good faith.

(c) If at the expiry of 21 Gas Days from receipt of a Variance Notice:

(1) the quantity of Gas supplied by the User at an Inlet Point on a Gas Day; or

(2) the quantity of Gas delivered to the User by GGT at an Outlet Point on a Gas Day, varies by more than the greater of:

(A) 8% of the User's nomination at that Inlet Point or that Outlet Point on that Gas Day; and

(B) one TJ.

then the User shall pay GGT the Variance Charge as determined in item 5(l)(e) of the Sixth Schedule until such time as the Variance Notice is withdrawn under clause 5.3(d).

(d) If GGT has issued the User with a Variance Notice, GGT:

(1) may withdraw that Variance Notice at any time in its discretion; and

(2) shall withdraw that Variance Notice if a period of three consecutive Months has elapsed without the User incurring the Variance Charge.

~~(a) GGT shall determine each Gas Day:~~

~~(1) a Daily Imbalance for each User;~~

~~(2) the Accumulated Imbalance for each User.~~

~~(b) GGT will notify each User of its Daily Imbalance and Accumulated Imbalance before 11:00 am on each Gas Day.~~

~~(c) Users may, at any time and on any terms they may agree, exchange all or part of their Accumulated Imbalances with other Users, which shall not take effect until both Users give notice in writing of any such exchange to GGT. On receipt of such notices GGT must adjust in each User's Accumulated Imbalance and relevant charges to reflect the exchange.~~

5.4 Changes to Nominations

(a) The User may at any time before or during a Month (but not less than 18 hours' notice before the ~~time of the proposed change~~ Gas Day) give notice to GGT of any change which is required in the quantities of Gas nominated under clause 5.2.

(b) If a notice of change of nomination is given with less than 18 hours' notice, GGT shall use reasonable endeavours consistent with the standard of a reasonable and prudent pipeline operator to comply with the change in the nomination so requested but will not be obliged to comply with the changed nomination.

496. GGT submits that the changes in the headings to clauses 5.1 and 5.2 are for purposes of clarification, indicating that the forecasts and nominations are made for monthly and daily periods, rather than referring to the intervals at which forecasts and nominations are provided. The Authority accepts that these revisions have the effect of clarification and do not materially affect the rights and obligations of Users, and the Authority therefore does not oppose the revisions.

497. The revision of clause 5.3 has involved the removal of provisions relating to imbalances and insertion of provisions relating to variances from nominations. GGT submits that this revision has been made pursuant to Amendment 14 of the Amended Draft Decision – relating to variances from nominations and clause 7 of the General Terms and Conditions. This is discussed further in relation to clause 7, below. It is not clear to the Authority, however, why GGT has removed the provisions relating to imbalances (including the obligation of GGT to advise Users of accumulated imbalance quantities and the rights of Users to trade imbalances). The Authority considers this to be a substantive revision to the Access Arrangement which neither incorporates a required amendment nor otherwise addresses the reasons for a required amendment, and which is unreasonably contrary to the interests of Users. The Authority therefore requires revision of the revised Access Arrangement to re-insert these provisions.

Final Decision Amendment 7

Clause 5.3 of the General Terms and Conditions should be amended to restore clauses 5.3(a) to (c) of the General Terms and Conditions of the originally proposed Access Arrangement (and relating to Notification of Imbalances).

498. The Authority also notes that with the revision of clause 5.3 of the Access Arrangement, there is an inconsistency between the heading of the clause (referring to imbalances) and the clause itself (referring to variances from nominations).
499. GGT has submitted that the revision to clause 5.4 is for purposes of clarification, indicating that the “time of the proposed change” in a nomination is actually the “Gas Day” to which the nomination relates. The Authority accepts that this revision has the effect of clarification without any substantive change in the clause itself, and therefore does not oppose the revision.

Connection, Inlet Point and Outlet Points

500. Clause 6 of the General Terms and Conditions relates to connection of a User’s facilities to the GGP, and to Inlet Points and Outlet Points. Submissions made to the Authority raised concerns as to provisions of the clause relating to ownership of Outlet Points and to changes in Outlet Points.
501. Clause 6.4 relates to Outlet Points and explicitly provides (under clause 6.4(b)) for Outlet Points to be owned and maintained by a third party.
502. Clause 6.6(a) of the General Terms and Conditions requires a User to procure for GGT an exclusive right to operate and control the Outlet Facilities, except where these are owned and maintained by a third party in accordance with clause 6.4(b) of the General Terms and Conditions. Where Outlet Facilities are owned and maintained by a third party, the provisions of clause 6.4(b) of the General Terms and Conditions apply as follows.
- The User provides GGT with access to the Outlet Point for the purposes of the Service Agreement.
 - The User provides connections for SCADA and communications equipment acceptable to GGT to enable it to monitor the functioning and operation of the Outlet Facilities.
 - The User ensures that the third party maintains adequate insurance to an amount approved by GGT.
 - The User pays a connection charge in respect of the Outlet Point.
503. A submission made to the Authority prior to the Amended Draft Decision questioned why the proposed Access Arrangement should not allow Outlet Facilities to be able to be owned by a User as well as either the Service Provider or a third party. In response to this issue, GGT submitted that Users comprise third parties within the context of clause 6.4 of the General Terms and Conditions and thereby are permitted to own Outlet Points.

504. The Authority interpreted clauses 6.4 and 6.6 of the General Terms and Conditions as providing for Outlet Points to be owned by a third party as something separate from, and in addition to, ownership by the User. There is no specific reference to ownership of Outlet Points by Users, nor any indication that Users are deemed to be third parties for the purposes of these clauses. It was the view of the Authority that it would be reasonable, for the purposes of clarity, for the General Terms and Conditions to make specific provision for ownership of Outlet Points by Users. The following amendment was required under the Amended Draft Decision:

Clause 6.6 of the General Terms and Conditions should be amended to explicitly allow Users, as well as third parties, to operate and maintain their own Outlet Points. (Amendment 7)

505. Also in relation to the ownership of Outlet Points, clause 6.4 of the General Terms and Conditions and the Second Schedule to the General Terms and Conditions require that a User must provide GGT with such spare parts and components as GGT from time to time considers necessary for the effective maintenance of the Outlet Point facilities. The Authority considered this requirement to be reasonable only where the Outlet Point facilities are owned by the User. The following amendment was required under the Amended Draft Decision:

The Second Schedule of the General Terms and Conditions should be amended to recognise that the requirement for Users to supply spare parts applies only where the Outlet Facilities are owned by Users but operated by GGT. (Amendment 8)

506. Clause 6.9 of the General Terms and Conditions provides for a User to change the Outlet Point pertaining to an Access Agreement, subject to a number of constraints and contractual requirements.
507. A submission was made to the Authority requesting that the Authority consider whether it is fair for the User to pay total aggregate charges no less than their existing commitments (with respect to Capacity Reservation and Toll Charges) if the User changes Outlet Points. For example, the Authority was asked to consider whether it is fair for a User to be required to pay such charges where the User changes to an Outlet Point upstream for which lower charges could apply (assuming a new Service Agreement was entered into).
508. The Authority noted that this situation is specifically contemplated by section 3.10 and 3.11 of the Code, in relation to the Trading Policy of an Access Arrangement, as follows.

3.10 The Trading Policy must comply with the following principles:

...

- (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.

3.11 Examples of things that would be reasonable for the purposes of section 3.10(b) and (c) are:

- (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.
509. The Authority determined that, as the relevant provision of clause 6.9 of the General Terms and Conditions is specifically allowed under the Code, the Authority is not in a position to find the provision unreasonable. Moreover, the Authority considered that the relevant provision of clause 6.9 is reasonable for protection of the interests of GGT under existing Service Agreements, taking into account that GGT may make certain investments to service an Outlet Point and the protection of the interests under the Service Agreement may have been necessary for this investment to have taken place.
510. In the revised Access Arrangement, GGT has revised clause 6 of the General Terms and Conditions as follows.
- 6.1 Connection to the Pipeline
- GGT will provide for the benefit of the User at the User's cost unless otherwise specified:
- (a) advice in respect of the engineering and planning for the connection of the User's facilities to the Pipeline;
 - ~~(b) the Inlet Facilities and connections to the Pipeline at the Inlet Point;~~
 - ~~(c)~~ (b) an actuated shut off valve and the Outlet Facilities at each Outlet Point;
 - ~~(d)~~ (c) supervision of connection activities for connection to the Pipeline or to the Outlet Facilities;
 - ~~(e)~~ (d) services related to the commissioning of the Outlet Facilities; and
 - ~~(f)~~ (e) access to the SCADA and other systems, including remote terminal units, communications and other equipment required to transmit to GGT parameters which are monitored by instruments and signals to control facilities under the control of GGT, as necessary for the commencement and provision of the Service to the User.
- 6.2 Inlet Point
- (a) Gas shall be delivered by the User to, and received by GGT into the Pipeline at the Inlet Point.
 - (b) Inlet Facilities ~~capable of receiving~~ which receive Gas from the Harriet and East Spar Joint Ventures' pipelines at Yarraloola in the vicinity of the inlet to the Pipeline have been installed. The cost of operation and maintenance of these Inlet Facilities will be borne by GGT.
 - (c) The Inlet Facilities shall at all times comply with the technical requirements for Inlet Facilities set out in the First Schedule.
 - (d) Subject to compliance with GGT's reasonable technical and operational requirements, if new inlet facilities to the GGP are installed at the existing interconnection point between the DBNGP and the GGP at Yarraloola, those facilities may be treated as an Inlet Point under these General Terms and Conditions.

6.3 Temperature and Pressure of Gas at Inlet Point

- (a) The User shall deliver Gas to GGT at temperature not exceeding 45°C and not less than 2°C.
- (b) Any Gas delivered by the User to GGT at the Inlet Facilities referred to in clause 6.2(b) will be at a pressure of between 7,800 kPa and 10,200 kPa.

6.4 Outlet Points

- (a) Gas shall be delivered by GGT to, and received by the User from the Pipeline at, Outlet Point(s).
- (b) All Outlet Points will be installed, owned, operated and maintained by GGT but the User shall pay the Connection Charge in respect of the Outlet Point and the cost of operation and maintenance of the Outlet Facilities (including for such spare parts and components as GGT from time to time considers necessary for the effective maintenance of the Outlet Facilities) will be borne by the User. ~~The User may request GGT to deliver Gas from the Pipeline at an Outlet Point using Outlet Facilities owned and maintained by a third party. GGT shall not unreasonably reject such a request provided that measurement procedures as outlined in clause 11.2(b) are agreed and~~
 - (1) ~~provides such access to the Outlet Point and the Outlet Facilities as GGT may reasonably request for the purposes of the Service Agreement, including, without limitation, for it to audit compliance to its satisfaction of the Outlet Facilities with the Second and Third Schedules;~~
 - (2) ~~provides connections for SCADA and communications facilities acceptable to GGT to enable GGT to monitor the functioning and operation of the Outlet Facilities;~~
 - (3) ~~ensures that the third party procures and maintains, throughout the period that GGT delivers Gas at such third party Outlet Point, all risk property damage insurance in an amount approved by GGT to indemnify the third party against damage, loss or destruction of its plant and equipment for the Outlet Point, endorsed such that the interests of the Owners and GGT are effectively insured under those policies and for the insurers to waive their rights of subrogation against them. The User will ensure that certificates of currency for these insurances are provided to GGT from time to time and forthwith upon request from GGT; and~~
 - (4) ~~pays a Connection Charge in respect of the Outlet Point.~~
- (c) Outlet Facilities shall at all times comply with the technical requirements for Outlet Facilities set out in the Second Schedule, ~~except where 6.4(b) applies, the Outlet Facilities will be constructed by GGT at the User's cost.~~

6.5 Pressure of Gas at Outlet Point

GGT will use reasonable endeavours consistent with the standard of a reasonable and prudent pipeline operator to deliver Gas to the User at a pressure in excess of 3,000 kPa at any Outlet Point.

6.6 Ownership and Possession

- (a) The User grants or shall procure for GGT the exclusive right to operate and control the Outlet Facilities ~~(except any Outlet Facilities owned and maintained by a third party as accepted by GGT under clause 6.4(b))~~ for the Service Period.
- (b) ~~GGT acknowledges that, other than~~ has the exclusive right to operate, maintain (at the User's cost) and control access to the Outlet Facilities referred to in this clause, and has ~~it shall have no~~ all other rights, title or interests in the Outlet Facilities ~~of the User.~~

- (c) The User will provide to GGT or ensure that GGT has access to and across any land and into or through any buildings, and access (including electronic access) to all readings and information generated by User's instruments that handle, process or measure the flow, characteristics of or quantity of User's Gas.
- (d) The User will provide to GGT reasonable electric power necessary for any instrumentation required to be installed as defined in the Second Schedule.

...

6.9 Alternative or Additional Outlet Points

The User may, by giving GGT at least 14 days prior notice, request that GGT transfers all or part of that User's MDQ with effect from the date specified in the notice, from the Outlet Point nominated in the applicable Order Form to another Outlet Point subject to:

- (a) the User having complied with any other preconditions for the Service to the new Outlet Point including the payment of a further Connection Charge for any new Outlet Point, as required by clause 6.4(b)(4);
- (b) the User remaining liable under the Service Agreement to pay a Capacity Reservation Charge and Toll Charge which, in total, is not less than the aggregate Capacity Reservation Charge and Toll Charge payable prior to the operation of the new Outlet Point;
- (c) where the distance between the Inlet Point and the new Outlet Point is greater than the distance between the Inlet Point and the Outlet Point prior to the operation of the new Outlet Point, the User under the Service Agreement shall pay the Toll Charge, Capacity Reservation Charge and Throughput Charge for the greater distance;
- (d) the Pipeline, in the opinion of GGT, having the capacity to transport Gas from the Inlet Point and deliver Gas to the new Outlet Point, and (e) there being no reasonable commercial and technical grounds which, in the opinion of GGT, prevent the delivery of Gas to the new Outlet Point.

6.10 Response by the Owners

Within 340 days of receipt of a notice under clause 6.9 GGT shall advise the User of its acceptance of the MDQ of the proposed alternative or additional Outlet Point, or an alternative MDQ that will apply, giving reasons for the alteration to the MDQ.

511. GGT has also made revisions to the Second Schedule of the General Terms and Conditions (specifying the technical requirements for outlet facilities) as follows.

Second Schedule: Technical Requirements for Outlet Facilities

Outlet Facilities to Comprise

In this Service Agreement, Outlet Facilities ~~means~~ are the facilities to be located at ~~nominated by or provided for the User in the vicinity of~~ the Outlet Point(s), which ~~comply with~~ meet the technical requirements description in this Schedule and include reverse flow protection, Gas quality monitoring and Gas measurement.

The parties recognise that other facilities may be installed upstream of the Outlet Facilities to perform a number of functions including gas conditioning, flow control, and pressure enhancement and regulation, and that those facilities are not Outlet Facilities for the purpose of this Service Agreement.

Outlet Point

The Outlet Point is to be the flange on the outlet or downstream side of the Outlet Facilities.

Approval of GGT Required

The design of the Outlet Facilities, and the selection, including the type and make, of equipment to be installed ~~will~~^{must} be ~~as~~ approved by GGT.

Standards

The design and construction of the Outlet Facilities ~~must~~^{will} be in accordance with all relevant Acts, Regulations and Australian Standards applicable at the time of construction, and ~~must~~^{will} be in accordance with good pipeline industry practice.

Site

The site on which the Outlet Facilities are located ~~will~~^{must} be fully enclosed with security fencing, suitable vehicular and personnel access. The Outlet Facilities ~~are to~~^{will} be separately fenced from any other User or third party facilities located on the site.

The ground at the site ~~will~~^{must} be concrete, seal, or gravel to enable access in all weather conditions to the Outlet Facilities.

Telemetry, power supply and other sensitive equipment ~~must~~^{will} be located in a weatherproof, secure, ventilated enclosure, with provision to allow for maintenance of equipment in all weather conditions.

Electrical Equipment

All electrical and electronic equipment on site ~~will~~^{must} comply with the requirements for hazardous locations pursuant to Australian Standards.

Electrical Isolation and Earthing

The Outlet Facilities will include an isolating joint to isolate the Outlet Facilities from the Pipeline. The isolating joint ~~will~~^{must} be fitted with a surge diverter or other approved means of discharging pipeline potentials.

All Outlet Facilities ~~will~~^{must} be connected to an effective earthing system of a type ~~as~~ approved by GGT.

Excess Flow Protection

The Outlet Facilities ~~must~~^{will} include a flow control device. This device will be used by GGT to prevent excess quantities of Gas from being delivered to the User.

The device is to be located on the upstream side of the Outlet Facilities.

Reverse Flow Prevention

The Outlet Facilities ~~must~~^{will} include a reverse flow prevention device designed to prevent the flow of Gas in the reverse direction through the Outlet Facilities.

Gas Quantity Measurement

The Outlet Facilities ~~must~~^{will} include a gas quantity measurement system, comprising a primary volume or mass measurement device (Meter), temperature, pressure, and density measuring devices, and a device for the correction of primary measurements to standard conditions.

Provision ~~must~~^{will} be made for redundancy to enable calibration of each component of the measurement system without interruption of measurement. Where the Meter is a mechanical device, such as a turbine meter, provision ~~must~~^{will} be made for in-situ series testing with a calibrated standard meter.

The measurement system ~~must~~^{will} include a gas filter to prevent contamination of the measurement system, and in particular the Meter.

Where a Meter is installed in-line with other components which may result in automatic closure of the Meter piping, systems ~~must~~^{will} be installed to automatically transfer to an alternative Meter.

Gross Heating Value Measurement

The Outlet Facilities ~~must~~will include a device for the measurement of Gross Heating Value of the Gas (GHV Device). ~~Unless otherwise agreed to~~The GHV Device shall be an on-line gas chromatograph.

The tapping point for the GHV Device ~~must~~will be midstream in the vicinity of the Meter. The stream for the GHV Device ~~must~~will not be filtered or treated in any way which could alter the effective GHV of the stream.

Where a gas chromatograph is used, only Alpha grade reference standards shall be used for calibration.

GGT may excuse certain smaller Outlet Facilities from GHV measurement at its sole discretion.

Gas Quality Monitoring

The Outlet Facilities ~~must~~will include devices for the monitoring of the quality of the Gas. Depending on the Gas composition, such devices may include a gas chromatograph, CO₂ monitor, moisture analyser, automatic gas sampler, and other devices.

The tapping point for such devices shall be midstream, in the vicinity of the Meter.

GGT may excuse certain smaller Outlet Facilities from specific Gas Quality measurement at its sole discretion.

Instruments

The Outlet Facilities are to be fitted with electronic instrument systems to permit remote monitoring and control of the Outlet Facilities. Instruments must be sufficient to monitor and permanently record:

- meter output;
- pressure, temperature, density, and other measurement input signals;
- GHV;
- corrected instantaneous and totalised Gas volume, mass and energy;
- Gas composition, moisture, and other Gas quality signals; and
- such other parameters as GGT may reasonably require.

Control systems ~~must be sufficient~~are to control:

- meter run selection (where appropriate); and
- excess flow protection device position; ~~and~~
- ~~such other parameters as GGT may reasonably require.~~

SCADA

The Outlet Facilities ~~must~~will include a system ~~capable of~~for transmitting to GGT's SCADA those parameters monitored by the instruments, and ~~capable of receiving~~receive from GGT's SCADA signals to adjust those settings which are under the control of GGT.

GGT may require that other parameters and control facilities be available through the SCADA link.

Spare Parts

~~The User must provide GGT with such spare parts and components as GGT from time to time considers necessary for the effective maintenance of the Outlet Facilities.~~

512. In response to the requirement for Amendment 7 of the Amended Draft Decision, GGT has revised clauses 6.4 and 6.6 to preclude third parties or Users from ownership

of Outlet Facilities, and requiring all Outlet Facilities to be owned by GGT. In a submission made to the Authority, GGT has indicated that this is in accordance with an operations policy adopted by GGT for all Outlet Points to be owned, operated and maintained by GGT for the purposes of maintaining best practice in the safe and reliable operation of the GGP and to ensure compliance with its operating licence. As a consequential change, and in response to Amendment 8, GGT has deleted from the Second Schedule the requirement for Users to provide GGT with spare parts and components for maintenance of Outlet Facilities, although clause 6.4 has been revised to make provision for Users to pay to GGT (as a charge additional to the Reference Tariff) amounts equal to the cost of operation and maintenance of the Outlet Facilities, including for spare parts and components.

513. The revisions made by GGT to the proposed Access Arrangement do not serve to incorporate Amendments 7 and 8 of the Amended Draft Decision. Nor do the revisions otherwise address the reasons for the required amendments. Rather, the revisions made by GGT implement a different approach to the ownership of (and, hence, financing of investment in) Outlet Facilities. In addition, the revisions seek to implement additional charges for the maintenance and operation of Outlet Facilities. Given the significance of these changes, and given that existing Outlet Facilities are owned by Users, the Authority is not able to accept GGT's revisions to the clause 6 of the General Terms and Conditions and maintains the requirement that clause 6 be amended to expressly provide for Users to own Outlet Facilities.

Final Decision Amendment 8

Clauses 6.4 and 6.6 and the Second Schedule of the General Terms and Conditions should be amended to restore provisions of the General Terms and Conditions under the originally proposed Access Arrangement to allow third parties to own, operate and maintain Outlet Facilities, and to explicitly allow Users, as well as third parties, to own, operate and maintain their own Outlet Points.

Final Decision Amendment 9

The Second Schedule of the General Terms and Conditions should be amended restore the requirement for Users to supply spare parts for Outlet Facilities and to alter this requirement so that it applies only where the Outlet Facilities are owned by Users but operated by GGT.

514. Revisions to clause 6.2 have been made to indicate that in the event that any Inlet Facilities were constructed to receive gas from the DBNGP at Yarraloola, these facilities would be treated as an Inlet Point under the General Terms and Conditions. The Authority considers that this revision is consistent with the representation made by GGT in respect of Amendment 2 of the Amended Draft Decision, and is satisfied that the revision is consistent with manner in which the reasons for Amendment 2 have been addressed (paragraph 54 and following, above).
515. A revision has been made to clause 6.10 to change the period within which GGT must respond to a User's request for a change in outlet point from 31 to 30 days. GGT has indicated that this revision has been made to create consistency throughout the Access Arrangement in timeframes. The Authority considers that the revision is not material and the Authority does not oppose the revision.

516. Related to clause 6 of the General Terms and Conditions, GGT has made revisions to the First Schedule of the General Terms and Conditions that contains elements of a technical specification for Inlet Facilities and is cross-referenced in clause 6.2 of the General Terms and Conditions. These revisions are largely of an editorial nature, except for the revision of the first paragraph of the schedule as follows:

~~In this Service Agreement, Inlet Facilities means~~ are ~~the facilities provided in the vicinity of~~ located at ~~the Inlet Point which comply with~~ meet ~~the technical requirements~~ description in this Schedule and include overpressure protection, reverse flow protection, Gas quality monitoring and Gas measurement. ~~The parties recognise that other facilities may be installed upstream of the Inlet Facilities to perform a number of functions including gas conditioning, flow control, and pressure enhancement and regulation, and that those facilities are not the Inlet Facilities for the purpose of this Service Agreement.~~

517. The Authority considers that these revisions to the First Schedule are not a material change to the proposed Access Arrangement and therefore the Authority does not oppose the revisions.
518. A number of minor revisions have also been made to the Second Schedule of the General Terms and Conditions, in particular changing the wording of obligations of parties from “must” to “will”. The Authority considers that these revisions are not a material change to the proposed Access Arrangement and while the revisions do not respond to required amendments of the Amended Draft Decision, the Authority does not oppose the revisions.

Quantity Variations and Charges

519. Clause 7 of the General Terms and Conditions relates to “quantity variations” and establishes limits on gas imbalances, daily overrun, hourly overrun, and variation from nominations. Clause 7 also makes provision, where the limits are exceeded, for Users to incur “Quantity Variation Charges” that are in addition to the Reference Tariff. Clause 9 of the General Terms and Conditions (*Transport Tariff and Charges*) makes explicit provision for levying of these charges on Users.
520. The Quantity Variation Charges provided for under clause 7 are specified in clause 5 of the Sixth Schedule to the General Terms and Conditions, and in the Access Arrangement as originally proposed comprise:
- Accumulated Imbalance Charge;
 - Daily Overrun Charge;
 - Hourly Overrun Charge; and
 - Variance Charge.
521. The Quantity Variation Charges could be applied or waived solely at GGT’s discretion. The waiver of a Quantity Variation Charge in any particular circumstance is not regarded by GGT as a precedent for waiver of such charges in future circumstances.
522. The Accumulated Imbalance Charge could be levied on the User where the accumulated imbalance for that User is in excess of an “Accumulated Imbalance

Tolerance”, which is the greater of 8 percent of the User’s MDQ or 1 TJ/day. The Accumulated Imbalance Charge is a charge of \$2.50 per GJ of accumulated imbalance adjusted by the CPI in accordance with clause 9.8 of the General Terms and Conditions, and could be varied by GGT through notice in writing to all Users.

523. The Daily Overrun Charge could be levied on the User when the daily quantity of gas received at the Inlet Point is greater than the User's MDQ, and/or the daily quantity of gas delivered at the Outlet Point is greater than the User's MDQ. The Daily Overrun Charge is determined as 350 percent of the total transmission charge that would normally be payable for gas delivery to the relevant Outlet Point.
524. The Hourly Overrun Charge could be levied on the User when the hourly quantity of gas received at the Inlet Point is greater than the User's MHQ (calculated as 120 percent of 1/24 of the User’s MDQ), and/or the hourly quantity of gas delivered at the Outlet Point is greater than the User's MHQ. The Hourly Overrun Charge is determined as 350 percent of the total transmission charge that would normally be payable for gas delivery to the relevant Outlet Point.
525. The Variance Charge could be levied on the User where the daily quantity of gas received at the Inlet Point is less than or greater than the User's nomination for the Inlet Point and/or the daily quantity of gas delivered at the Outlet Point is less than or greater than the User's nomination for the Outlet Point, and this “Variance Quantity” is in excess of a “Variance Tolerance”, which is the greater of 8 percent of the User’s MDQ or 1 TJ/day. The Variance Charge is determined as 200 percent of the total transmission charge that would normally be payable for gas delivery to the relevant Outlet Point.
526. The Authority considered several issues in relation to the provisions for Quantity Variation Charges:
 - whether, for a Reference Service established under an Access Arrangement, the Quantity Variation Charges may be imposed;
 - the magnitude of the Quantity Variation Charges;
 - the proposed provision for GGT to change the value of Quantity Variation Charges by notice to Users;
 - the disposition of revenue from imposition of the Quantity Variation Charges;
 - the features and application of each Quantity Variation Charge; and
 - the information available to Users for Users to assess potential liability for the Quantity Variation Charges.
527. The matter of whether charges in the nature of the Quantity Variation Charge can be imposed on Users of a Reference Service was a matter addressed by the Regulator in the Regulator’s Final Decision on the proposed Access Arrangement for the

DBNGP.⁸⁰ In this decision, the Regulator considered the charges to be reasonable only if their application was limited to circumstances where actual pecuniary loss or damage occurs, or there is a significant risk to the integrity of the pipeline.

528. The Authority noted in the Amended Draft Decision that the provisions for imposition of Quantity Variation Charges for the GGP explicitly provide for GGT to have discretion in the imposition of the charges. However, no information is provided on the potential exercise of this discretion.
529. The Authority considered that the provisions for imposition of Quantity Variation Charges are reasonable only to the extent that they are limited in application and effect to the imposition of a charge upon Users in the event that specific conduct engaged in by Users causes actual pecuniary loss or damage or exposes the pipeline to a significant risk (whether or not that risk becomes manifest) that threatens the integrity of the pipeline. Accordingly, the Authority considered that discretion to impose a charge beyond these circumstances (as provided for under the General Terms and Conditions) is unreasonable. The following amendment was required under the Amended Draft Decision:
- The proposed Access Arrangement and General Terms and Conditions should be amended to provide that the Accumulated Imbalance Charge, Daily Overrun Charge, Hourly Overrun Charge and Variation Charge may be imposed only where:
- (a) the conduct contemplated by those charges causes actual pecuniary loss or damage; or
 - (b) in the reasonable opinion of the pipeline operator the conduct contemplated by those penalties exposes the pipeline to a significant risk (whether or not that risk becomes manifest) that threatens the integrity of the pipeline. (Amendment 9)
530. In relation to the magnitude of the Quantity Variation Charges, the Authority also maintained the position of the Regulator in respect of the Access Arrangement for the DBNGP, that common industry practice should serve as a guide in setting the value of the charges, taking into account that the consequences of the conduct that will attract the charges are almost impossible to pre-estimate.
531. Comparable charge rates for other Australian transmission pipelines regulated under the Code were cited by the Authority in the Amended Draft Decision as follows.

⁸⁰ Independent Gas Pipelines Access Regulator Western Australia, 18 November 2003, Supplementary Reasons and Amendment, Final Decision on the proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline.

Magnitudes of Charges for Quantity Variation under Approved Access Arrangements for Transmission Pipelines

Pipeline	Nature of Variation⁸¹	Variance Charge as multiple of Relevant Reference Tariff
Amadeus Basin to Darwin (N.T. Gas Pty Ltd)	Daily Overrun	1
	Accumulated Imbalance*	2.5
	Variance	1.2
Central West Pipeline (AGL Pipelines (NSW) Pty Ltd)	Daily Overrun	1
	Accumulated Imbalance*	2.5
	Variance	0.2
Moomba to Sydney Pipeline (East Australian Pipeline Ltd)	Daily Overrun	2.0 to 3.5
	Variance	1.2
Moomba to Adelaide Pipeline (Epic Energy)	Accumulated Imbalance	0.74 (approx.)
	Variance	0.74
Tubridgi Pipeline System (Tubridgi Parties)	Daily Overrun	0.56
Dampier to Bunbury Natural Gas Pipeline (Epic Energy)	Hourly Overrun	3.5
	Daily Overrun	1.1
	Accumulated Imbalance	3.5
	Variance	3.5

* Applies only where contracted pipeline capacity is in excess of 85 percent of total pipeline capacity.

532. Taking into account the quantity variation charges established for other Covered Pipelines, the Authority was satisfied that the levels of Quantity Variation Charges proposed by GGT are consistent with charges applicable in respect of other pipelines in Australia, albeit at the upper end of the range of values and, on that basis, the magnitude of the charges was considered reasonable.
533. In regard to the disposition of revenue gained from imposition of Quantity Variation Charges, the Authority took the view that it would be unreasonable for GGT to retain the revenue as it was not taken into account in the determination of the Reference Tariff. Moreover, retention of the revenue gained from imposition of Quantity Variation Charges was regarded by the Authority as unreasonable for the reason that it would create an incentive for GGT to claim that the charges apply in circumstances where it may not otherwise do so.
534. The Authority noted that there are at least three other Australian transmission pipelines regulated under the Code where the actual or proposed practice is that revenues gained by imbalance and/or overrun charges are rebatable to Users, and that rebate provisions were an initiative of the Service Provider rather than imposed by the relevant regulator.⁸² This is contrary to a submission from GGT indicating that rebate of revenues from penalty charges has not been general practice by industry. The following amendment was required under the Amended Draft Decision:

⁸¹ For ease of comparison, actions attracting charges are described by the relevant terms as used in the proposed Access Arrangement for the GGP rather than, necessarily, the terms used in the Access Arrangement for the relevant pipeline.

⁸² 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, 11 November 1999. Epic Energy, Proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, 15 December 1999.

The proposed Access Arrangement should be amended so that 95 percent of revenue generated from the application of Quantity Variation Charges is rebatable as if these charges are in relation to rebatable Services within the meaning of the Code. (Amendment 10)

535. On the issue of the ability of GGT to change Quantity Variation Charges during the Access Arrangement Period, the Authority noted that clause 7 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions include provision for GGT, by providing notice to Users, to unilaterally change the tolerance limits applicable to the Accumulated Imbalance Charge and Variance Charge, and the rates of Quantity Variation Charges.
536. The Authority considered that a change in the rates of the Quantity Variation Charges would comprise a change to the General Terms and Conditions and, consequently, to the Access Arrangement. Taking into account that an Access Arrangement may only be changed or revised through the process set out in section 2 of the Code, and that this process does not contemplate changes or revisions being implemented unilaterally by a Service Provider, the Authority was of the view that the proposed provisions for change in the rates of the Quantity Variation Charges are not permissible under the Code. The following amendment was required under the Amended Draft Decision:

Clause 7 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended to remove provision for GGT to change the tolerance limits applicable to the Accumulated Imbalance Charge and Variance Charge, and the rates of Quantity Variation Charges. (Amendment 11)
537. The Authority also considered the characteristics of each of the proposed Quantity Variation Charges.
538. For the Accumulated Imbalance Charge, GGT proposed that, if at the end of any gas day the absolute value of the Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance, GGT may at its discretion require the User to pay an Accumulated Imbalance Charge. The Accumulated Imbalance is the arithmetic sum of all Daily Imbalances corrected for any adjustments made by trading of gas imbalances or purchase or sale of gas to correct gas imbalances.
539. At the conclusion of the term of the Service Agreement, the Accumulated Imbalance must be set to zero. If this is not done, GGT will set the Accumulated Imbalance to zero by purchasing or selling gas. Similarly, if a User is liable for an Accumulated Imbalance Charge for seven or more consecutive “Gas Days”, the User must agree to GGT purchasing or selling gas on the User’s behalf to set the Accumulated Imbalance to zero.
540. In the event that GGT purchases gas to set a User’s Accumulated Imbalance to zero, the User will be invoiced for the gas at twice the prevailing “Used Gas” price. If GGT sells gas to set a User’s Accumulated Imbalance to zero, the User will be credited for the gas at half the prevailing Used Gas price (General Terms and Conditions clause 7.2(j)). The gas prices are those reasonably nominated by GGT, which may vary from time to time (clause 7.2(h)).
541. The Authority noted that, where applied, the Accumulated Imbalance Charge would be levied against the entire quantity of Accumulated Imbalance and not just the excess over the Accumulated Imbalance Tolerance. This is contrary to common industry

practice which is for such a charge to be levied only on quantities that exceed the relevant tolerance.⁸³

542. In light of common industry practice, the Authority took the view that the Accumulated Imbalance Charge proposed by GGT is not reasonable. The following amendment was required under the Amended Draft Decision:

Clause 7 and/or the Sixth Schedule of the General Terms and Conditions should be amended so that the Accumulated Imbalance Charge does not apply in respect of the amount of the tolerance allowed. (Amendment 12)

543. The Daily Overrun Charge and Hourly Overrun Charge proposed by GGT would both operate similarly. Both are calculated as an overrun quantity at an Inlet Point or Outlet Point in excess of the User's MDQ or MHQ, multiplied by 3.5 times the applicable transmission tariff for the User.

544. The Authority noted that the determination of the Daily Overrun and Hourly Overrun Charges for both Inlet Points and Outlet Points potentially causes the User to be penalised twice for the same overrun: once for the overrun at the Inlet Point and once for the overrun at the Outlet Point. Moreover, as an overrun at an Inlet Point would not generally compromise the operation of the pipeline (as it only contributes to pipeline linepack and pressure), in most cases a charge on overrun at an Inlet Point would not be justified by any consequent cost to the pipeline operator or risk to pipeline operation. For this reason, the Authority considered the provision for Quantity Variation Charges to apply to Daily Overrun and Hourly Overrun at Inlet Points to not be reasonable. The following amendment was required under the Amended Draft Decision:

Clauses 7.3 and 7.4 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended so that the Daily Overrun Charge and Hourly Overrun Charge applies only in respect of overrun at Outlet Points. (Amendment 13)

545. For the Variance Charge, GGT proposed that if at the end of any gas day the absolute value of the difference between the actual and nominated volumes of gas received or delivered into or from the pipeline exceeds the Variance Tolerance, GGT may at its discretion require the User to pay the Variance Charge. The Variance Tolerance is the greater of eight percent of the daily nomination or 1 TJ.

546. The Authority noted the importance of nominations in the operation of a transmission pipeline, particularly in efficient operation of the pipeline (management of compressor configuration and linepack) and in efficient utilisation of the pipeline (the possibility of making unutilised pipeline capacity available to Users on a spot or short-term basis). As such, the Authority acknowledged the need to have in place mechanisms to motivate accurate nominations. However, the Authority also recognised that nominations are a forecast by Users of gas delivery and that in the normal course of events, there are valid reasons for actual gas delivery to vary from forecasts that were accurate at the time the nomination was made. Taking this into account, the Authority considered that an unqualified discretion for GGT to impose the Variance Charge is not reasonable. Rather, the Authority considered that the

⁸³ The Access Arrangements for the following pipelines only charge or propose to only charge in respect of the excess above the tolerance: Moomba to Adelaide Pipeline, Queensland Gas Pipeline and DBNGP.

Variance Charge should only be capable of being imposed where a User persistently nominates in a manner inconsistent with a considered forecast of gas delivery. The following amendment was required under the Amended Draft Decision:

Clause 7.5 of the General Terms and Conditions should be amended to indicate that the Variance Charge will only apply in cases where the Variance Tolerance is exceeded as a result of a failure by the User to make nominations in good faith. (Amendment 14)

547. Also with regard to the Variance Charge, the Authority noted that the Variance Charge applies to the difference between the actual gas quantities received or delivered into or from the pipeline and the nominated quantities, rather than the difference that is in excess of the Variance Tolerance. Given the potential difficulty and impracticality of a User exactly matching gas receipt and delivery with nominations, the Authority considered this operation of the Variance Charge to not be reasonable. Rather, the Authority considered that the Variance Charge, where applied, should only apply to the difference between the actual gas quantity received or delivered into or from the pipeline and the nominated quantity that is in excess of the Variance Tolerance. The following amendment was required under the Amended Draft Decision:

Clause 7 and/or the Sixth Schedule of the General Terms and Conditions should be amended so that the Variance Charge does not apply in respect of the amount of the tolerance allowed. (Amendment 15)

548. Finally, consideration was given by the Authority to the availability of information to Users to enable Users to assess potential liability for Quantity Variation Charges. As a general principle, the Authority considered that where the terms and conditions for a Reference Service include provisions for charges of the nature of the Quantity Variation Charges proposed by GGT, the terms and conditions should also provide, to the extent reasonably practicable, for the Service Provider to make information available on a timely basis to Users that enables Users to assess their potential liability for the charges and take action to avoid the charges.
549. GGT submitted to the Authority that a requirement for GGT to provide information would be unreasonable for the reason that the Authority has no power to impose costs on GGT through requiring particular mechanisms for provision of relevant information.⁸⁴ Further, GGT submitted that the requirement is inconsistent with the then Regulator's approval of the Access Arrangement for the Mid-West and South-West Gas Distribution Systems.
550. The Authority agreed with GGT that it would not be appropriate to require GGT to utilise a particular mechanism for provision of information to Users. However, the Authority is of the view that cost-effective mechanisms are available to GGT to achieve timely provision of information so that Users can respond and take actions to avoid the Quantity Variation Charges. Further, while the Authority noted that the Regulator did not impose any requirement on AlintaGas in respect of the Access Arrangement for Mid-West and South-West Gas Distribution Systems, this was because the Access Arrangement for the distribution systems did not include

⁸⁴ This submission from GGT responded to the April 2001 Draft Decision where the Regulator gave an example of information provision by an electronic bulletin board as a mechanism by which GGT could provide relevant information to Users.

provisions for such charges and the same need for provision of information on a timely basis does not exist.

551. Taking into account the above matters, the Authority took the view that the provisions of the General Terms and Conditions relating to Quantity Variation Charges are not reasonable in the absence of an obligation on GGT to provide, to the extent practicable, information on a timely basis to Users that enables Users to assess their potential liability to the charges and take action to avoid the charges. The following amendment was required under the Amended Draft Decision:

The proposed Access Arrangement should be amended to make provision, to the extent reasonably practicable, for User-specific information to be available to Users on a timely basis sufficient for the User to assess potential liability for Quantity Variation Charges and take action to avoid the charges. (Amendment 16)

552. In the revised Access Arrangement, GGT has revised clause 7 of the General Terms and Conditions as follows.

7 QUANTITY VARIATIONS

7.1 Effect of Quantity Variations

- (a) Quantity variations of the types described in this clause 7 may cause operational disturbances which may potentially disadvantage all other Users of the Pipeline. Such disadvantage may derive from shortages or surpluses of Gas in the Pipeline which can inhibit or otherwise compromise the receipt of Gas at the Inlet Point, compromise the safe and efficient transport of Gas through the Pipeline, inhibit or otherwise compromise the delivery of Gas at the Outlet Point(s), and compromise the management of the Pipeline.
- (b) Prevention of operational disturbances which may potentially disadvantage other Users promotes the efficient use of the Pipeline.
- (c) GGT acting as a reasonable and prudent pipeline operator will to the extent reasonably practicable provide Users with specific information on a timely basis sufficient for the User to assess potential liability for Quantity Variation Charges and take action to avoid those charges.

7.2 Gas Balancing

- (a) The Daily Imbalance for a User for a particular Gas Day is the quantity of Gas calculated as follows:

$$DI_n = DGR_n - DGD_n$$

Where:

DI_n is the Daily Imbalance for the User in TJs for the Gas Day n

DGR_n is the Daily quantity of Gas received for the User at the Inlet Point in TJs for the Gas Day n

DGD_n is the Daily quantity of Gas delivered to the User at the Outlet Point(s) in TJs for the Gas Day n

The Daily Imbalance may be a positive or a negative number. A positive Daily Imbalance means the quantity of Gas received was greater than the quantity of Gas delivered for the Gas Day in question. A negative Daily Imbalance means that the quantity of Gas received was less than the quantity of Gas delivered for the Gas Day in question.

- (b) The Accumulated Imbalance is the arithmetic sum of all Daily Imbalances corrected for any adjustments made by trading of gas imbalances or purchase or sale of Gas to correct gas imbalances.
- (c) The Accumulated Imbalance Tolerance means that quantity of Gas which is calculated as the greater of:
- $$AIT = MDQ \times AITF \text{ or}$$
- $$AIT = AITV$$
- Where:
- AIT* is the Accumulated Imbalance Tolerance in TJs
- MDQ* is the Maximum Daily Quantity in TJs
- AITF* has the value 0.08
- AITV* has the value 1 TJ
- ~~The values for AITF and AITV may be modified by GGT through notice in writing to all Users.~~
- (d) If at the end of any Gas Day the absolute value of the Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance, GGT may at its discretion, require the User to pay to GGT an Accumulated Imbalance Charge or the difference between the absolute value of the Accumulated Imbalance and the Accumulated Imbalance Tolerance.
- (e) The User shall make all reasonable efforts to maintain an Accumulated Imbalance of zero.
- (f) Users may, at any time and on any terms they may agree, exchange all or part of their Accumulated Imbalances with other Users, which shall not take effect until both Users give notice in writing of any such exchange to GGT. On receipt of such notices GGT must adjust in each User's Accumulated Imbalance and relevant charges to reflect the exchange.
- (g) GGT reserves the right to interrupt or reduce receipts and deliveries in and out of the Pipeline if the absolute value of a User's Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance and the safety or the operation of the Pipeline or the rights of other users are prejudiced or likely to be prejudiced by the User's Accumulated Imbalance.
- (h) At the conclusion of the Term, the Accumulated Imbalance shall be set to zero. This may be accomplished by the User trading the Accumulated Imbalance with another User or with GGT within 7 days. If this is not achieved within 7 days, GGT will issue an invoice or refund for the value of the Accumulated Imbalance at gas prices reasonably nominated by GGT, which may vary from time to time.
- (i) In the event that the User is liable for a Accumulated Imbalance Charge for 7 or more consecutive Gas Days, the User shall agree to GGT either purchasing or selling Gas on the User's behalf in order to set the User's Accumulated Imbalance to zero if GGT so desires.
- (j) In the event that:
- (1) GGT purchases Gas to set a User's Accumulated Imbalance to zero the User will be invoiced for that Gas at a rate of twice the prevailing Used Gas price.
 - (2) GGT sells Gas to set a User's Accumulated Imbalance to zero the User will be credited for that Gas at a rate of half the prevailing Used Gas price.

7.3 Daily Overrun

- (a) When the Daily quantity of Gas received at the Inlet Point is greater than the User's MDQ [\(which shall where relevant include the SQQO\)](#), and/or the Daily quantity of Gas delivered at the Outlet Point(s) is greater than the User's MDQ [\(which shall where relevant include the SQQO\)](#), the Daily Overrun Quantity for a particular Gas Day means that quantity of Gas which is calculated as follows:

$$DOQ_n = DG_n - [MDQ + SQQO]$$

Where:

DOQ_n is the Daily Overrun Quantity for the User in TJs for the Gas Day n

DG_n is the Daily quantity of Gas received for the User at the Inlet Point and/or Gas delivered to the User at the Outlet Point(s) in TJs for the Gas Day n

MDQ is the User's Maximum Daily Quantity in TJs

[SQQO is the Supplementary Quantity Option Quantity in TJs](#)

- (b) If at the end of any Gas Day User's Daily quantity of Gas received at the Inlet Point is greater than the User's MDQ and/or the User's Daily quantity of Gas delivered at the Outlet Point(s) is greater than the User's MDQ, GGT may at its discretion require the User to pay to GGT a Daily Overrun Charge.
- (c) The User shall use all reasonable efforts to ensure that the Daily quantity of Gas received and/or Gas delivered is not more than the User's MDQ.
- (d) [If for a period of 30 Gas Days the Daily Overrun Quantity for each of those Days is positive then if after the giving of 7 Gas Days notice the User's Daily Overrun Quantity still remains positive then with effect from the next Gas Day the User's Maximum Daily Quantity will be increased by the average of the Daily Overrun Quantity for the total of that period and notice period.](#)

7.4 Hourly Overrun

- (a) When the Hourly quantity of Gas received at the Inlet Point is greater than the User's MHQ [\(which shall where relevant include the SQQHQ\)](#), and/or the Hourly quantity of Gas delivered at the Outlet Point(s) is greater than the User's MHQ [\(which shall where relevant include the SQQHQ\)](#), the Hourly Overrun Quantity for a particular Hour means that quantity of Gas which is calculated as follows:

$$HOQ = HG - [MHQ + SQQHQ]$$

Where:

HOQ is the Hourly Overrun Quantity in TJs

HG is the Hourly quantity of Gas received from the User at the Inlet Point and/or Gas delivered to the User at the Outlet Point(s) in TJs

MHQ is the User's Maximum Hourly Quantity in TJs

[SQQHQ is the Supplementary Quantity Option Quantity divided by 24 and multiplied by 1.2 in TJs](#)

- (b) If at the end of any Hour the Hourly quantity of Gas received at the Inlet Point is more than the User's MHQ and/or the Hourly quantity of Gas delivered at the Outlet Point(s) is more than the User's MHQ, GGT may at its discretion require the User to pay to an Hourly Overrun Charge.
- (c) The User shall use all reasonable efforts to ensure that the Hourly quantity of Gas received and/or delivered is not more than the User's MHQ.

7.5 Variance

- (a) When the Daily quantity of Gas received at the Inlet Point is less than or greater than the User's Nomination for the Inlet Point and/or the Daily quantity of Gas delivered at the Outlet Point(s) is less than or greater than the User's Nomination for the Outlet Point(s), the Variance Quantity for a particular Gas Day means that quantity of Gas which is calculated as follows:

$$VQ_n = \text{abs}(DG_n - NOM_n)$$

Where:

VQ_n is the Daily Variance Quantity in TJs for the Gas Day n

DG_n is the Daily quantity of Gas received for the User at the Inlet Point and/or Gas delivered to the User at the Outlet Point(s) in TJs for the Gas Day n

NOM_n is the User's Nomination for the Inlet Point or Outlet Point(s) in TJs for the Gas Day n

- (b) Variance Tolerance means that quantity of Gas which is calculated as the greater of:

$$VT = NOM_n \times VTF \text{ or}$$

$$VT = VTV$$

Where:

VT is the Variance Tolerance in TJs

NOM_n is the User's Nomination for the Inlet Point and/or Outlet Point(s) in TJs for the Gas Day n

VTF has the value 0.08

VTV has the value 1 TJ

~~The values of VTF and VTV may be modified by GGT through notice in writing to all Users.~~

- (c) If at the end of any Gas Day the absolute value of the Variance Quantity is more than the Variance Tolerance, ~~GGT may at its discretion require the User to pay a Variance Charge~~ then clause 5.3 applies.
- (d) The User shall use all reasonable efforts to ensure that the Daily quantity of Gas received is not more or less than the User's Nomination at the Inlet Point and that the Daily quantity of Gas delivered is not more or less than the User's Nomination at the Outlet Point(s).

553. GGT has also revised clause 5.3 of the General Terms and Conditions to include provisions relating to Variation Charges, as follows:

5.3 Notification of Imbalances

- (a) The User's nominations provided to GGT pursuant to clause 5.2 shall be made in good faith.
- (b) If GGT acting as a reasonable and prudent pipeline operator believes that the User is not making nominations pursuant to clause 5.2 in good faith, then GGT may give a notice to the User ("Variance Notice") requiring the User to nominate in good faith.
- (c) If at the expiry of 21 Gas Days from receipt of a Variance Notice:
- (1) the quantity of Gas supplied by the User at an Inlet Point on a Gas Day; or
 - (2) the quantity of Gas delivered to the User by GGT at an Outlet Point on a Gas Day, varies by more than the greater of:

- (A) 8% of the User's nomination at that Inlet Point or that Outlet Point on that Gas Day; and
- (B) one TJ,
- then the User shall pay GGT the Variance Charge as determined in item 5(l)(e) of the Sixth Schedule until such time as the Variance Notice is withdrawn under clause 5.3(d).
- (d) If GGT has issued the User with a Variance Notice, GGT:
- (1) may withdraw that Variance Notice at any time in its discretion; and
- (2) shall withdraw that Variance Notice if a period of three consecutive Months has elapsed without the User incurring the Variance Charge.
- ~~(a) GGT shall determine each Gas Day:~~
- ~~(1) a Daily Imbalance for each User,~~
- ~~(2) the Accumulated Imbalance for each User.~~
- ~~(b) GGT will notify each User of its Daily Imbalance and Accumulated Imbalance before 11:00 am on each Gas Day.~~
- ~~(c) Users may, at any time and on any terms they may agree, exchange all or part of their Accumulated Imbalances with other Users, which shall not take effect until both Users give notice in writing of any such exchange to GGT. On receipt of such notices GGT must adjust in each User's Accumulated Imbalance and relevant charges to reflect the exchange.~~

554. GGT has also made revisions to clause 5 of the Sixth Schedule of the General Terms and Conditions (specifying Quantity Variation Charges) as follows.

5. Quantity Variation Charges

(a) Transportation Tariff

The total transportation tariff to be applied to the Daily Overrun Charge, the Hourly Overrun Charge and the Variance Charge and the SQO Charge is defined as follows: the aggregate of the following⁷²:

$$Trans_Tariff = Toll + CapRes + Thruput$$

Where:

Trans_Tariff is the total transportation tariff

Toll is the Toll Tariff

CapRes is the Capacity Reservation Tariff multiplied by *distance*

Thruput is the Throughput Tariff multiplied by *distance*

Where: *distance* is the pipeline distance in kilometres between the Inlet Point and Outlet Point(s) which are the furthest apart.

(b) Accumulated Imbalance Charge

If applied the Accumulative Imbalance Charge is calculated as follows:

$$AI_C = (abs(AI) - \underline{AIT}) \times 1000 \times AI_T$$

where:

AI_C is the Accumulated Imbalance Charge in \$

AI is the Accumulated Imbalance in TJs

AIT is the Accumulated Imbalance Tolerance in TJs

AI_T is the Accumulated Imbalance Tariff and has the value \$2.50 per Gigajoule, adjusted by the CPI in accordance clause 9.8 of the General Terms and Conditions, and may be varied by GGT through notice in writing to all Users.

(c) Daily Overrun Charge

If applied the Daily Overrun Charge is calculated as follows:

$$DO_C = DOQ \times 1000 \times (Trans_Tariff \times DO_CF)$$

Where:

DO_C is the Daily Overrun Charge in \$

DOQ is the Daily Overrun Quantity in TJs

Trans_Tariff is the applicable tariff in \$/GJ as defined in item 5(a).

DO_CF is the Daily Overrun Charge Factor and has the value 3.5, and may be varied by GGT through notice in writing to all Users.

(d) Hourly Overrun Charge

If applied the Hourly Overrun Charge is calculated as follows:

$$HO_C = HOQ \times 1000 \times (Trans_Tariff \times HO_CF)$$

Where:

HO_C is the Hourly Overrun Charge in \$

HOQ is the Hourly Overrun Quantity in TJs

Trans_Tariff is the applicable tariff in \$/GJ as defined in item 5(a)

HO_CF is the Hourly Overrun Charge Factor and has the value 3.5, and may be varied by GGT through notice in writing to all Users

(e) Variance Charge

If applied the Variance Charge is calculated as follows:

$$V_C = (\text{abs}(VQ) - VT) \times 1000 \times (Trans_Tariff \times V_CF)$$

Where:

V_C is the Variance Charge in \$

VQ is the Variance Quantity in TJs

VT is the Variance Tolerance in TJs

Trans_Tariff is the applicable tariff in \$/GJ as defined in item 5(a)

V_CF is the Variance Charge Factor and has the value 2.0, and may be varied by GGT through notice in writing to all Users.

555. The responses of GGT to required amendments under the Amended Draft Decision of terms and conditions relating to Quantity Variation Charges are assessed as follows.

556. Amendment 9 required that:

The proposed Access Arrangement and General Terms and Conditions should be amended to provide that the Accumulated Imbalance Charge, Daily Overrun Charge, Hourly Overrun Charge and Variation Charge may be imposed only where:

- (a) the conduct contemplated by those charges causes actual pecuniary loss or damage; or
- (b) in the reasonable opinion of the pipeline operator the conduct contemplated by those penalties exposes the pipeline to a significant risk (whether or not that risk becomes manifest) that threatens the integrity of the pipeline.

557. GGT has not incorporated this amendment into the revised Access Arrangement. In a submission to the Authority, GGT has opposed the required amendment primarily on the basis that the inability to impose Quantity Variation Charges as a matter of course reduces the ability of GGT to create the necessary incentives for Users to comply with contractual conditions and thus for GGT to be able to adequately manage the pipeline. GGT also submits that the inability to impose Quantity Variation Charges as a matter of course will reduce the revenue to GGT from the Reference Service, as Users will reduce their contracted MDQ when not faced with Quantity Variation Charges for overruns, and hence GGT would have to reduce demand forecasts (i.e. forecasts of MDQ) with the effect of increasing the Reference Tariff.
558. The Authority does not consider either of the submissions of GGT to be valid. Even with limitation of the power of GGT to impose Quantity Variation Charges, the imposition of Quantity Variation Charges would remain very much at GGT's discretion. If the pipeline were operated at close to capacity it may be difficult for a User to sustain a case that an activity attracting a variance charge would not cause a risk to the integrity of the pipeline. Alternatively, if the pipeline were not operated at close to capacity, then variances in the nature of overruns may not carry a risk of comprising the integrity of the pipeline, and, hence, there is no reason for a quantity variation charge to be imposed. A User deliberately understating MDQ would be carrying a risk of exposure to the Quantity Variation Charges.
559. The Authority therefore takes the view that GGT has failed to incorporate Amendment 9 into the revised Access Arrangement and has not otherwise addressed the reasons for this required amendment.

Final Decision Amendment 10

The revised Access Arrangement and General Terms and Conditions should be amended to provide that the Accumulated Imbalance Charge, Daily Overrun Charge, Hourly Overrun Charge and Variation Charge may be imposed only where:

- (a) the conduct contemplated by those charges causes actual pecuniary loss or damage; or
- (b) in the reasonable opinion of the pipeline operator the conduct contemplated by those charges exposes the pipeline to a significant risk (whether or not that risk becomes manifest) that threatens the integrity of the pipeline.

560. Amendment 10 of the Amended Draft Decision required that:

The proposed Access Arrangement should be amended so that 95 percent of revenue generated from the application of Quantity Variation Charges is rebatable as if these charges are in relation to Rebatable Services within the meaning of the Code.

561. GGT has not incorporated this amendment into the revised Access Arrangement. In a submission to the Authority, GGT has opposed the requirement for rebate of revenues from Quantity Variation Charges for two reasons:

- that Quantity Variation Charges are not charges for a service, and hence the provisions of the Code relating to rebatable services are not relevant to these charges; and
- if the requirement for Amendment 9 is maintained and Quantity Variation Charges may be imposed only where a cost or risk is borne, or expected to have been borne, by GGT, then it is unreasonable that GGT should not be able to retain the revenue from Quantity Variation Charges in compensation for this cost or risk.

562. The Authority does not accept either of these objections. The Amended Draft Decision does not imply that revenues from Quantity Variation Charges are revenues from a rebatable service, but rather makes reference to the provisions of the Code relating to rebatable services as a means of indicating the nature of the rebate mechanism that is required. The Authority accepts that if the circumstances in which the Quantity Variation Charges may be imposed is limited to situations in which a cost or risk is borne by GGT, then there is some case for the revenue from the charges being retained by the Service Provider as a means of compensating for the cost or risk incurred. However, the ability to impose Quantity Variation Charges is not limited to circumstances where a loss or risk is incurred by GGT. Rather, Quantity Variation Charges may also be imposed where a loss is suffered by a User. In this circumstance, the Authority considers that a rebate to non-offending Users is entirely appropriate. Moreover, in circumstances where GGT suffers significant loss, it will have available a contractual claim for damages for breach of contract in the ordinary course.

563. The Authority therefore takes the view that GGT has not incorporated Amendment 10 into the revised Access Arrangement and has not otherwise addressed the reasons for this required amendment.

Final Decision Amendment 11

The revised Access Arrangement should be amended so that 95 percent of revenue generated from the application of Quantity Variation Charges is rebatable as if these charges are in relation to rebatable Services within the meaning of the Code.

564. Amendment 11 of the Amended Draft Decision required that:

Clause 7 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended to remove provision for GGT to change the tolerance limits applicable to the Accumulated Imbalance Charge and Variance Charge, and the rates of Quantity Variation Charges.

565. GGT has partially incorporated Amendment 11 into the revised Access Arrangement by revisions to clause 7.2 of the General Terms and Conditions to remove provision for GGT to change the parameters *AITF* and *AITV* in calculation of the Accumulated Imbalance Tolerance, and revisions to clause 7.5 to remove provision for GGT to change the parameters *VTF* and *VTV* in calculation of the Variance Tolerance. However, GGT has not revised clauses 5(b), 5(c) and 5(d) and 5(e) of the Sixth

Schedule to remove provision for GGT to change the rates of the Accumulated Imbalance Charge, Daily Overrun Charge, Hourly Overrun Charge and Variance Charge.

566. GGT has submitted to the Authority that the proposed amendment that seeks removal of GGT's ability to change the rates of Quantity Variation Charges is unnecessary, as it fails to take into account the need for GGT to have flexibility to manage the behaviour of Users in respect of quantity variations, and thus fails to take into account the operational and technical requirements for the safe and reliable operation of the pipeline, as provided for under section 2.24 of the Code. GGT has not, however, addressed the Authority's principal reason for the amendment, being that variation of the General Terms and Conditions in the manner proposed by GGT is not permitted under section 2.49 of the Code.
567. The Authority therefore takes the view that GGT has not incorporated Amendment 11 into the revised Access Arrangement and has not otherwise addressed the reasons for this required amendment.

Final Decision Amendment 12

Clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended to remove provision for GGT to change the rates of Quantity Variation Charges.

568. Amendment 12 of the Amended Draft Decision required that:

Clause 7 and/or the Sixth Schedule of the General Terms and Conditions should be amended so that the Accumulated Imbalance Charge does not apply in respect of the amount of the tolerance allowed.

569. GGT has incorporated Amendment 12 into the revised Access Arrangement by revision of clause 7.2(d) of the General Terms and Conditions and revision of the formula for calculation of the Accumulated Imbalance Charge in clause 5(b) of the sixth Schedule of the General Terms and Conditions. The Authority notes an apparent typing error in the revisions made to clause 7.2(d) of the General Terms and Conditions, which the Authority believes should read:

- (d) If at the end of any Gas Day the absolute value of the Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance, GGT may at its discretion, require the User to pay to GGT an Accumulated Imbalance Charge on the difference between the absolute value of the Accumulated Imbalance and the Accumulated Imbalance Tolerance.

Final Decision Amendment 13

Clause 7.2(d) of the General Terms and Conditions should be amended to read "If at the end of any Gas Day the absolute value of the Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance, GGT may at its discretion, require the User to pay to GGT an Accumulated Imbalance Charge on the difference between the absolute value of the Accumulated Imbalance and the Accumulated Imbalance Tolerance.

570. Amendment 13 of the Amended Draft Decision required that:

Clauses 7.3 and 7.4 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended so that the Daily Overrun Charge and Hourly Overrun Charge applies only in respect of overrun at Outlet Points.

571. GGT has not incorporated Amendment 13 into the revised Access Arrangement and has made a submission to the Authority contending that contrary to the Authority's reasoning set out in the Amended Draft Decision, application of overrun charges to inlet points is standard practice in the pipeline industry and such charges are provided for with the Moomba to Sydney Pipeline and the Moomba to Adelaide Pipeline System.

572. In view of GGT's submission, the Authority has reviewed Access Arrangements for other gas pipelines in Australia and confirms that other Access Arrangements, including for the Moomba to Sydney Pipeline and the Moomba to Adelaide Pipeline System do not provide for overrun charges at receipt points, as indicated in the table below.

Application of Overrun Charges for Covered Pipelines

Pipeline	Penalised Action⁸⁵	Application
Amadeus Basin to Darwin (N.T. Gas Pty Ltd)	Daily Overrun	Delivery points only
Central West Pipeline (AGL Pipelines (NSW) Pty Ltd)	Daily Overrun	Delivery points only
Moomba to Sydney Pipeline (East Australian Pipeline Ltd)	Daily Overrun	Delivery points only
Moomba to Adelaide Pipeline (Epic Energy)	No Overrun Charges	n.a.
Tubridgi Pipeline System (Tubridgi Parties)	Daily Overrun	Delivery points only
Dampier to Bunbury Natural Gas Pipeline (Epic Energy)	Hourly Overrun (Peaking)	Delivery points only
	Daily Overrun	Delivery points only

573. GGT also claims that the inability to impose overrun charges at Inlet Points to the GGP compromises the operational and technical requirements for the safe and reliable operation of the GGP. The Authority does not consider this contention to be valid. The GGP operates with only a single Inlet Point which is subject to control in respect of gas receipts into the pipeline. There is limited prospect for any deemed overrun on behalf of an individual User to compromise the safe and reliable operation of the pipeline.

⁸⁵ For ease of comparison, actions attracting charges are described by the relevant terms as used in the proposed Access Arrangement for the GGP rather than, necessarily, the terms used in the Access Arrangement for the relevant pipeline.

574. The Authority therefore takes the view that GGT has not incorporated Amendment 13 into the revised Access Arrangement and has not otherwise addressed the reasons for this required amendment.

Final Decision Amendment 14

Clauses 7.3 and 7.4 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended so that the Daily Overrun Charge and Hourly Overrun Charge applies only in respect of overrun at Outlet Points.

575. Amendment 14 of the Amended Draft Decision required that:

Clause 7.5 of the General Terms and Conditions should be amended to indicate that the Variance Charge will only apply in cases where the Variance Tolerance is exceeded as a result of a failure by the User to make nominations in good faith.

576. The Authority is satisfied that GGT has incorporated Amendment 14 into the revised Access Arrangement in the new clause 5.3 of the General Terms and Conditions.

577. Amendment 15 required that:

Clause 7 and/or the Sixth Schedule of the General Terms and Conditions should be amended so that the Variance Charge does not apply in respect of the amount of the tolerance allowed.

578. The Authority is satisfied that GGT has incorporated Amendment 15 into the revised Access Arrangement by revision of the formula for calculation of the Variance Charge in clause 5(b) of the Sixth Schedule of the General Terms and Conditions.

579. Amendment 16 required that:

The proposed Access Arrangement should be amended to make provision, to the extent reasonably practicable, for User-specific information to be available to Users on a timely basis sufficient for the User to assess potential liability for Quantity Variation Charges and take action to avoid the charges.

580. The Authority is satisfied that GGT has incorporated Amendment 16 into the revised Access Arrangement by inclusion of a relevant provision in clause 7.1(c) of the General Terms and Conditions.

581. In addition to revisions to incorporate required amendments under the Amended Draft Decision, GGT has made additional revisions to clause 7 of the General Terms and Conditions.

582. Clauses 7.3 and 7.4 of the General Terms and Conditions have been revised such that Daily Overrun Quantity and Hourly Overrun Quantity are determined taking into account any applicable Supplementary Quantity Option obtained by the User. The Authority considers this revision to be in accordance with the intent of the original provisions and thus does not oppose the revision.

583. A new clause 7.3(d) has been added to the General Terms and Conditions that provides for the contracted MDQ of a User to be increased in the event of persistent Daily Overruns by the User. This revision of the proposed Access Arrangement neither incorporates a required amendment nor otherwise addresses the reasons for a

required amendment, and is contrary to the interests of Users. The Authority considers that this revision is a substantial change to the terms and conditions and materially contrary to the interests of Users and Prospective Users and is not accepted on this basis.

Final Decision Amendment 15

Clause 7.3(d) of the General Terms and Conditions of the revised Access Arrangement should be deleted.

Interruption of Service

584. Clause 8 of the General Terms and Conditions contains provisions relating to interruption of Services, including provisions for interruptions for reasons of pipeline maintenance, emergency or *force majeure*. Clause 8 also sets out the obligations of GGP in the event of an interruption, including provision to Users of advance notice of interruptions.
585. Clause 8.2 of the General Terms and Conditions provides for GGT to curtail the provision of Services for maintenance purposes. Clause 8.3(b) states that GGT will use “all reasonable endeavours to inform Users” but does not indicate a specified notice period that must be given.
586. In the Amended Draft Decision, the Authority considered the adverse impacts of interruptions of Services upon Users. These effects may be reduced if Users have advance notice of interruptions. Where planned maintenance of the GGP is being conducted, the Authority noted that GGT would know well in advance whether an interruption of Services is likely to occur. The Authority considered that it is not reasonable that the General Terms and Conditions do not make explicit provision for GGT to give advance notice to Users of any interruptions that may occur as a consequence of planned maintenance activities. The following amendment was required under the Amended Draft Decision:
- Clause 8.2 (alternatively clause 8.3(b)) of the General Terms and Conditions should be amended to specify that GGT will consult Users and give Users at least 30 days notice when planned maintenance is likely to interrupt their Services. (Amendment 17)
587. More generally in relation to interruptions, several submissions made to the Authority suggested that the proposed Access Arrangement should be amended to include a specified “reliability level” or “reliability index” for the Reference Service, and that it should include a provision for the reduction of fixed charges in the event of an interruption or reduction in the provision of the Reference Service. Further, it was submitted that issues such as notification of the performance of GGT against the reliability index and an ability to continuously track performance should be considered.
588. GGT submitted that the operating costs contained in the proposed Access Arrangement reflect the current operating costs and practices and that any increase in current levels of reliability may result in an increase in operating costs and therefore an increase in the Reference Tariffs. Further, GGT submitted that any User which

required any particular reliability features could seek to negotiate the terms of such a Service with GGT.

589. The Authority took the view that for a Reference Service described as a “Firm Service”, it is unreasonable for the General Terms and Conditions to not provide some guarantee of supply with a corresponding reduction in fixed charges if this guarantee is not met. However, while the Authority took the view that there should, ideally, be some specification of reliability included in a proposed Access Arrangement, it may be technically difficult to require an amendment to the proposed Access Arrangement to that effect.
590. As such, the Authority considered that the concerns in relation to reliability may best be addressed at this time by requirements for GGT to bear the direct costs of interruptions to the Reference Service through waiving or refunds of relevant charges in most circumstances of interruptions. The Authority has dealt with the matter of reduction of charges in the event of an interruption of supply in relation to clauses 17 and 18 of the General Terms and Conditions, below.
591. In response to the requirement for Amendment 17, GGT made the following revisions to clauses 8.2 and 8.3 of the General Terms and Conditions:

8.2 Interruption for Maintenance

In addition to the rights of the Owners or GGT otherwise provided for in the Service Agreement, [subject to clause 8.3\(b\)](#) GGT may without penalty or cost interrupt or reduce the Service either totally or partially for any period which, in its opinion as a reasonable and prudent pipeline operator, is necessary for the purposes of testing, adding to, altering, repairing, replacing, cleaning, upgrading or maintaining any part of the Pipeline (including without limitation, pipelines, compressors, valves and monitoring equipment) or for any other purpose which in GGT's opinion as a reasonable and prudent operator requires interruption or reduction of the Service.

8.3 GGT's Obligations

GGT shall:

- (a) be non-discriminatory in the interruption of the transportation services effected as a result of clause 8.2;
- (b) use all reasonable endeavours to ~~notify~~ [give](#) the User [at least 30 days notice when any of the activities in clause 8.2 are likely](#) ~~prior to the interruption or reduction of the transportation services of its intention~~ to interrupt or reduce the transportation services;
- (c) use all reasonable endeavours consistent with the standard of a reasonable and prudent pipeline operator to minimise the period of interruption or reduction of transportation services; and
- (d) when practicable, consult with the User regarding the timing of the interruption or reduction so as to minimise the disturbance to the User's business and other users' businesses.

592. The Authority notes that clause 8.2 of the General Terms and Conditions has been revised to indicate that GGT's rights to interrupt or reduce a Service without penalty are subject to clause 8.3(b). It is unclear to the Authority why GGT's rights in this regard should be subject only to clause 8.3(b) rather than the whole of clause 8.3. The Authority does not consider this limitation to be reasonable.

Final Decision Amendment 16

Clause 8.2 of the General Terms and Conditions of the revised Access Arrangement should be amended such that GGT's rights to interrupt or reduce a Service without penalty are subject to the whole of clause 8.3.

593. The revision made by GGT to section 8.3(b) of the General Terms and Conditions creates a requirement for GGT to use all reasonable endeavours to give 30 days notice to Users where there is likely to be an interruption or reduction to transportation services as a result of maintenance or other necessary works on the pipeline. The revision does not, however, address the particular requirement of Amendment 17 of the Amended Draft Decision to provide 30 days notice to Users when planned maintenance is likely to interrupt their Services. As such, the Authority is not satisfied that the revised Access Arrangement incorporates this required amendment.

Final Decision Amendment 17

Clause 8.3(b) of the General Terms and Conditions of the revised Access Arrangement should be amended to specify that GGT will give the User at least 30 days notice when activities listed in clause 8.2 are planned in advance of the activity being undertaken and are likely to interrupt or reduce the transportation service for the User, and to specify that GGT will use reasonable endeavours to provide 30 days notice where the activities are undertaken for unplanned or emergency reasons.

594. GGT has also made revisions to clause 8.5 of the General Terms and Conditions, unrelated to any amendment required under the Amended Draft Decision:

8.5 Force Majeure Interruption

If due to a Force Majeure occurrence referred to in clause 17.1 transportation services are interrupted or reduced, then GGT shall use all reasonable endeavours consistent with the standard of a reasonable and prudent pipeline operator to maintain transportation services so that a user who has an agreement for transportation services in the nature of a Firm Service can deliver and take Gas in such quantities as is pro-rated between all users who have entered into agreements for transportation services in the nature of a Firm Service on the basis of their respective ~~its MDQs, unless GGT and all such users otherwise agree~~ ~~bears to the aggregate MDQs of all the users who have entered into agreements for transportation services in the nature of a Firm Service.~~ In doing so GGT will, in a fair and reasonable manner, take account of the location of the Force Majeure occurrence, the relative location of the Inlet Point and Outlet Point(s), the health and safety requirements within the facilities of the Owners, GGT, users and users' gas customers and the potential for damage to those facilities resulting from the interruption or curtailment to transportation services and the Service under the Service Agreement.

595. GGT has submitted that these revisions are made for the purposes of clarifying the provision. The Authority considers that these revisions are not a material change to the proposed Access Arrangement and, while the revisions do not respond to required

amendments of the Amended Draft Decision, the Authority does not oppose the revisions.

Transportation Tariff and Charges

596. Clause 9 of the General Terms and Conditions describes the component charges of the Reference Tariff and specifies terms for the payment of these charges. Clause 9 also makes provision for the following matters.
- Charges in addition to the Reference Tariff including a Used Gas Charge; a Supplementary Quantity Option Charge; an Account Establishment Charge; a Connection Charge; an Annual Account Management Charge; and Quantity Variation Charges (as considered above in relation to Clause 7 of the General Terms and Conditions).
 - Annual escalation of charges with a measure of inflation.
 - Payment by the User of taxes imposed on or incurred by GGT or the owners of the GGP.
 - Payment by the User of Goods and Services Tax.
 - Continued payment by the User of tariffs and charges where the Service is interrupted.
 - Provision by a User to GGT of a surety prior to commencement of a Service.
597. The Authority considered, as an element of the terms and conditions, the range of charges proposed by GGT that are in addition to the Reference Tariff. The Authority's determination in respect of Quantity Variation Charges are addressed in relation to clause 7 of the General Terms and Conditions (paragraphs 519 to 583, above). The Authority's determinations in respect of other charges are addressed below.
598. The Used Gas Charge is proposed to be applied by GGT to recover the cost of system-use gas comprising:
- physical losses of gas from the pipeline system;
 - accumulated metering errors at Inlet and Outlet Points;
 - compressor fuel; and
 - gas used by other equipment.
599. The costs associated with system-use gas have not been included in the Non Capital Costs taken into account in determination of the Reference Tariff. GGT proposes to apportion the cost of system-use gas across all Users on the basis of the gas delivered to each User.
600. The Used Gas Charge is defined as being the product of:

- the quotient of the User's actual quantity of gas delivered at all Outlet Points in a Billing Period and the total quantity of gas delivered from the Pipeline in the same Billing Period; and
 - GGT's reasonable assessment of its cost incurred for Used Gas in a Billing Period.
601. In clause 2 of the Sixth Schedule of the General Terms and Conditions as originally proposed, GGT undertakes to provide Used Gas at cost and to make all reasonable endeavours to ensure that the price paid for this gas (Used Gas price) is reasonable.
602. Several submissions made to the Authority addressed the issue of the Used Gas Charge, making the following representations.
- The cost of Used Gas should be subject to a reasonable price cap to give GGT an incentive to ensure the cost of Used Gas is as low as reasonably practicable.
 - Unaccounted for gas arises from faults in pipeline operation and the absence of liability of the pipeline operator for the costs of unaccounted for gas is inconsistent with creating an incentive to minimise unaccounted for gas.
603. In its Amended Draft Decision, the Authority concurred with the view expressed in submissions that the pass through of the cost of system-use gas (including unaccounted for gas) is inconsistent with an incentive to minimise costs of system-use gas and losses in operation of the pipeline. With regard to unaccounted for gas, however, the Authority noted that for a high-pressure gas transmission pipeline (unlike a distribution system), gas losses through leakage are unlikely to be significant because gas leakages from a high-pressure transmission pipeline would not occur without causing operating difficulties for the pipeline or constituting significant safety or technical hazards. Accordingly, the Authority took the view that there is no need to include additional incentives in an Access Arrangement to minimise unaccounted for gas.
604. Notwithstanding this conclusion, the Authority took the view that the system-use gas charge is not reasonable unless GGT provides information to Users to enable Users to monitor the performance of GGT in managing system-use gas and purchasing gas. GGT indicated in a submission to the Authority that it has in the past provided such information to Users. As such, there was no reason apparent to the Authority as to why explicit provision should not be made in the General Terms and Conditions for this practice to continue. The following amendment was required under the Amended Draft Decision:
- The Access Arrangement and General Terms and Conditions should be amended to establish an obligation for GGT to provide Users with information on the quantity of Used Gas and the price(s) paid by GGT for the purchase of gas for system-use purposes. (Amendment 18)
605. The Authority also considered whether the terms and conditions of the Reference Service should make provision for Users to provide gas to GGT in lieu of paying the Used Gas Charge. The provision by Users of pipelines of gas to meet system-use requirements of the pipeline is common in the gas transmission industry, and the Authority considered that the facility to do so is consistent with creating incentives for efficient operation of the pipeline. However, the Authority noted that there were no submissions from Users or other parties requesting such a facility and the Authority

therefore did not consider the absence of the facility in the proposed Access Arrangement for the GGP to be unreasonable.

606. The Supplementary Quantity Option Charge, which is specified in clause 4 of the Sixth Schedule of the General Terms and Conditions, is a charge for capacity secured as a Supplementary Quantity Option under clause 4 of the General Terms and Conditions. The charge is determined at a rate of 105 percent of the Reference Tariff that would be applicable for contracted capacity and throughput for the relevant Outlet Point.
607. The Authority was, and remains, of the view that the Supplementary Quantity Option Charge is reasonable as a term or condition of the Reference Service.
608. The three additional charges proposed by GGT – the Account Establishment Charge, Connection Charge and Annual Account Management Charge – are indicated in clause 9 of the General Terms and Conditions and clause 3 of the Sixth Schedule to the General Terms and Conditions to recover costs as follows.
- Connection Charge:
 - for the commencement of a Firm Service, a once-only Connection Charge, payable on the Date of Service Agreement, for each new Outlet Point and, a once-only Connection Charge for each additional Outlet Point nominated or provided during the Service Period; and
 - Users will be charged GGT’s direct costs for the installation of facilities associated with the connection of the User’s facilities to the GGP.
 - Account Establishment Charge:
 - for the establishment of an account for each Service, a once-only, non-refundable Account Establishment Charge, payable on the Date of Service Agreement for each Service; and
 - a value of \$1,500 adjusted by the CPI in accordance with clause 9.8 of the General Terms and Conditions.
 - Annual Account Management Charge:
 - for the annual maintenance of each account, an annual account management charge, payable on the first Business Day in January during each Year of the Term of the Service Agreement; and
 - a value of \$1,500 per annum adjusted by the CPI in accordance with clause 9.8 of the General Terms and Conditions.
609. In reviewing the provisions for these charges, the Authority considered whether it is possible that allowance has already been made in forecast Non Capital Costs for the costs to which the charges relate, and whether the charges in addition to the Reference Tariff could potentially result in an over-recovery of costs. GGT did not provide the Authority with any information to justify the charges and assist in this assessment.

610. In relation to the Connection Charge, the Authority was satisfied that the charge is directed to recovering actual costs incurred in undertaking specific works necessary for the commencement of a Service. As such, the Authority was satisfied that this charge is unlikely to recover costs that have already been included in forecasts of Non Capital Costs.
611. Subsequent to the Authority's Amended Draft Decision, two parties have made submissions to the Authority contending that the Connection Charge should be limited to costs reasonably incurred by GGT in connecting the GGP to a User's facilities for the delivery of gas. The Authority has considered these submissions and, taking into account that it has determined not to approve the revised Access Arrangement, requires revision of clause 9 of the General Terms and Conditions to include this constraint on the value of a Connection Charge.

Final Decision Amendment 18

Clause 9.5 of the General Terms and Conditions of the revised Access Arrangement should be amended such that the value of a Connection Charge is limited to the value of costs reasonably incurred by GGT in establishing each new Outlet Point.

612. In reaching its Amended Draft Decision, the Authority viewed the Account Establishment Charge as also being directed to recovery of costs incurred prior to commencement of a Service, although there are no particular activities indicated to be associated with the charge and, in the absence of substantiating information, the value of the charge (\$1,500) appeared to the Authority to be arbitrary. Moreover, while the Authority accepted that there may be administrative activities associated with the commencement of a Service to a new User, the Authority saw no reason to accept that these activities would not be undertaken by staff of GGT, with the cost already included in forecasts of Non Capital Costs considered in determination of the Reference Tariff.
613. The proposal for the Annual Account Management Charge appears to follow the precedent of the tariffs established under the Tariff Setting Principles which specifically contemplated an Annual Account Management Charge. For this charge, there are also no particular activities indicated to be associated with the charge and, in the absence of substantiating information, the value of the charge (\$1,500) also appears to be arbitrary. The Authority saw no reason to accept that these activities would not be undertaken by staff of GGT, with the cost already included in forecasts of Non Capital Costs considered in determination of the Reference Tariff.
614. The Authority recognised the possibility that the Account Establishment Charge and Annual Account Management Charge may allow for over-recovery of costs. However, the Authority also recognised that the value of the charges (approximately \$10,000 per annum for the Annual Account Management Charge with the current number of third-party Users) is immaterial in calculation of the Reference Tariff and did not require amendment of the Access Arrangement to remove provision for the charges.
615. The Authority notes that in the revised Access Arrangement GGT has revised the value of these charges to amounts of \$1,800 in each instance, indicated to be an

escalation for inflation. This change in value of the charges does not cause the Authority to change its views expressed in the Amended Draft Decision.

616. In addition to the provisions of clause 9 of the General Terms and Conditions relating to particular charges, the Authority considered in the Amended Draft Decision the remaining provisions of clause 9 that relate generally to the imposition of charges. The Authority considered several of these provisions to be unreasonable and/or not compliant with the requirements of the Code.

617. Firstly, clause 9.9 of the General Terms and Conditions as originally proposed makes provision for GGT to pass through the costs of taxes to Users as charges in addition to the Reference Tariff:

9.9 Taxes

In addition to the tariffs and charges payable under this Service Agreement, the User shall pay to the Owners an amount equal to any tax, duty, impost, levy or other charge (but excluding income tax) imposed by the government or other regulatory authority from time to time on or incurred by GGT or the Owners in respect of the Service provided pursuant to the Service Agreement (including without limitation, any increase of any such tax, duty, impost, levy or other charge) at the same time and in the same manner as the User is obliged to pay for the Service plus any tax or impost on the transfer or retransfer of the ownership of Gas.

618. Clause 9.11 of the General Terms and Conditions makes provision for GGT to pass through the costs of the Goods and Services Tax to Users as charges in addition to the Reference Tariff. Clause 9.11 also provides that, should changes in the income tax regime associated with the GST result in lower costs for GGT, the benefits of these lower costs will also be passed on to Users.

619. It was the view of the Authority that the Code does not provide for a Service Provider to pass through the cost of taxation in the manner proposed by GGT in clauses 9.9 and 9.11 of the General Terms and Conditions.

620. Sections 8.3A to 8.3H of the Code do provide for adjustment of a Reference Tariff within an Access Arrangement Period in response to a “Specified Event”, which conceivably may include a change in a taxation regime affecting the Service Provider. However, for such an adjustment to be possible, the Access Arrangement must include an “Approved Reference Tariff Variation Method” that includes a description of the Specified Event(s) contemplated by the Service Provider. GGT’s provisions for the variation of the Reference Tariff under clauses 9.9 and 9.11 of the General Terms and Conditions do not conform to an Approved Reference Tariff Variation Method under the Code.

621. Other than the provisions of sections 8.3A to 8.3H, while the Code does not prevent the levying of charges as contemplated by sub-clause 9.9 of the General Terms and Conditions, the Code does not contemplate the imposition of charges separate to the Reference Tariff for Reference Services, where those charges are in the nature of a Service-provision charge as opposed to a surcharge. Rather, the approach is that there is only one charge. In this regard:

- the concept of “Total Revenue” as defined in section 8.2 of the Code and applied in section 8.4 contemplates that there will only be a single charge for each

Reference Service whereby the Service Provider recovers its revenue (being the cost of providing Services) from Users;

- the single charge for each Reference Service will be one Reference Tariff (under section 3.3 of the Code);
- under the definitions of “Reference Tariff”, “Tariff” (which refers to “the charge”) and “Charge” (which refers to “the amount”) in section 10.8 of the Code, the charge that applies is a single amount; and
- sections 8.4, 8.36 and 8.37 specifically allow for the recovery of Non Capital Costs, which appears to the Authority to be the true character of the costs GGT seeks to recover separately to the Reference Tariff.

622. Further, under section 6.13 of the Code, the Arbitrator can only decide to require a Service Provider to provide the Reference Service at the Reference Tariff in a dispute about which tariff should apply to that Reference Service. Section 6.13 effectively means that in any dispute over provision of the Reference Service, GGT bears the risk that the Arbitrator would not require the Prospective User to pay those charges as they do not form part of the Reference Tariff.

623. Accordingly, as the Code does not specifically provide for the imposition of charges in the way proposed by GGT (that is, separate to the Reference Tariff), the Authority took the view that the charges do not fall within sections 3.1 to 3.20 of the Code and the Authority was therefore unable to approve them as such. The following amendment of the proposed Access Arrangement was required under the Amended Draft Decision:

Clauses 9.9 and 9.11 of the General Terms and Conditions should be amended to remove provision for the pass through of tax imposts on GGT either as a charge in addition to the Reference Tariff or as an adjustment to the Reference Tariff, or GGT’s Access Arrangement should be amended to provide a relevant mechanism for adjustment of the Reference Tariff in accordance with the provisions of section 8.3A to 8.3H of the Code. (Amendment 19)

624. In regard to the provisions of clause 9.11 for the pass through of costs of the Goods and Services Tax, the Authority notes that the General Terms and Conditions were drafted and submitted to the Authority prior to the implementation of the Goods and Services Tax and as a result the final details of this tax were uncertain. The Authority noted, however, that as the Goods and Services Tax has subsequently been implemented, there is no reason why the tax margin on transmission charges arising from the Goods and Services Tax could not be incorporated as part of the Reference Tariff.

625. The second matter of concern to the Authority in relation to the general provisions of clause 9 of the General Terms and Conditions was the provision of clause 9.12 for all charges to continue to apply in cases of curtailment of supply for maintenance or due to emergency interruption or *force majeure*. These charges include the Toll Charge and the Capacity Reservation Charge, as defined in the General Terms and Conditions. Although not explicitly stated in clause 9.12, it appeared that the Throughput Charge would only be applied to actual throughput (if any) during the period of interruption. Related provisions exist in clause 17.2 (providing that “a User shall not be relieved from liability to pay money due, including the Toll Charge and

the Capacity Reservation Charge which shall continue to accrue and be payable notwithstanding” *force majeure*) and clause 18.5 (providing for a partial reduction of the User’s liability for the Capacity Reservation Charge and the Toll Charge where the Reference Service is interrupted for a period in excess of 48 hours and the interruption is directly or indirectly caused by GGT).

626. A submission was made to the Authority that any interruption of gas supply caused by a *force majeure* event or by an emergency has the potential to cause significant commercial business loss to Users. Further, it was submitted that, as GGT has protected itself by removing its liability for such losses in the proposed Access Arrangement, it was inappropriate that charges and tariffs continue to apply in circumstances of an interruption of gas supply.
627. The submission raises the issue of who should bear the financial risk associated with interruptions in the provision of a Service. In the view of the Authority, this issue relates to incentives for the efficient (i.e. least-cost) provision of the Service. An important aspect in assessing the reasonableness of the arrangements to manage emergencies and *force majeure* events is matching the risks associated with these events to the party that is best able to address the consequences. The risk is likely to be most appropriately assumed by the party best able to address the resulting consequences, ensuring incentives for Services to be returned back to normal as rapidly as possible. That is, liability for costs (being the consequences of interruption, such as the business losses to Users or the charges and tariffs during the period of interruption) should rest with the party best able to take action to minimise those costs. This will provide the strongest incentive for cost minimisation.
628. It was therefore the view of the Authority that the provision for charges to be maintained in circumstances of an interruption to the Reference Service is unreasonable. The Authority considered that a reasonable arrangement would be for the direct cost of a Service interruption to rest with GGT where the interruption is caused by factors under GGT’s control or for which GGT is in the best position to avoid the risk of interruption or minimise the extent of interruption. These circumstances include interruption to Services:
- arising by virtue of maintenance requirements where GGT has not given at least 30 days notice of the interruption; and
 - occurring as a result of a *force majeure* event where GGT is the party claiming the benefit of *force majeure*.
629. In both of these cases, if partial disruption of Service occurs, the Authority considered it to be reasonable that the fixed charges are waived in proportion to the extent of the disruption. Furthermore, since a User’s Accumulated Imbalance and Variance Quantity will be affected by any gas flow restrictions caused by maintenance, emergency or *force majeure*, it was considered unreasonable that there is no provision for the waiving of the Accumulated Imbalance Charge and the Variance Charge where they are potentially incurred as result of Service interruptions.
630. However, the Authority took the view that it is reasonable for the fixed charges to continue to apply for interruption due to planned maintenance for which GGT has provided notice of at least 30 days, on the basis that maintenance is readily

predictable and is necessary for the prudent operation of the pipeline. The following amendments of the proposed Access Arrangement were required under the Amended Draft Decision:

Clauses 9 (and clauses 17 and 18, as necessary) of the General Terms and Conditions should be amended to provide for the waiving of charges in circumstances of, and to the extent that, interruption of Services occurs. These circumstances should include interruptions to Services arising by virtue of maintenance requirements where GGT has not given at least 30 days notice of the interruption, and interruptions occurring as a result of a force majeure event where GGT is the party claiming the benefit of force majeure. (Amendment 20)

Clause 9 of the General Terms and Conditions should be amended to provide for the waiving of User liabilities for the Accumulated Imbalance Charge and the Variance Charge where the liabilities are incurred as a result of Service interruptions. (Amendment 21)

631. The third matter of concern to the Authority in relation to the provisions of clause 9 of the General Terms and Conditions was the provisions of clause 9.13 in relation to the requirement for a User to provide GGT with surety prior to commencement of a Service or at some other time as agreed by the parties, and by way of security for the performance by the User of its obligations under the Service Agreement. Clause 9.13 includes provision for GGT to increase the size of the required surety if the User increases its contracted MDQ.
632. The proposed Access Arrangement does not provide any guidance as to the amount that GGT may require as a bond or deposit, or the amount by which the surety may be increased in response to an increase in MDQ. Moreover, there is no provision for the bond or deposit to be reduced in the event that a User's reserved MDQ is reduced.
633. A submission to the Authority suggested that the method GGT used to calculate the bond should be clearly detailed and highly transparent. It was also submitted that, in determining an increase in the bond resulting from an increase in MDQ which also required the installation of a compressor to the pipeline, the expense of the compressor should not be taken into account as to do so may result in an excessive bond level for what could, theoretically, be a small load increase. It was submitted that the risk for a compressor in these circumstances was dealt with in the capital expenditure provisions of the proposed Access Arrangement.
634. The Authority took the view that it is reasonable that the size of any bond or deposit reflect the risk to GGT of not being paid by a User and should not necessarily be related to the actual costs incurred by GGT in providing a Service. However, clause 9.13 of the General Terms and Conditions does not constrain GGT to set a reasonable value for a bond or deposit nor does it require GGT to reduce the amount of the value of the bond or deposit upon any decrease in MDQ.
635. The Authority considered that the absence of any constraint on GGT requiring it to set a reasonable value for the bond or deposit (for example, a constraint that the value be for the minimum amount necessary to protect GGT's legitimate business interests) is not reasonable. The following amendment of the proposed Access Arrangement was required under the Amended Draft Decision:

Clause 9.13 of the General Terms and Conditions should be amended to specify a reasonable basis on which a bond, deposit or other surety is determined and to provide for that value to be decreased where there is a decrease in the User's MDQ, on a basis similar to that for determining increases in the value where there is an increase in the User's MDQ. (Amendment 22)

636. In the revised Access Arrangement, GGT has made revisions to clause 9 of the General Terms and Conditions as follows:

9.3 Basis of Charges

Unless otherwise agreed, all charges that rely on measurement are to be computed on measured quantities and qualities of Gas generated by the measuring equipment specified in the First Schedule and the Second Schedule.

The Toll Charge and the Capacity Reservation Charge are fixed charges and are payable monthly during the Service Period by the User whether or not the User delivers or accepts Gas under the Service Agreement, except where:

- (a) the User is unable to deliver or accept Gas due to an event of Force Majeure claimed by GGT; or
- (b) GGT has interrupted or reduced the Services for a period which was not a consequence of an emergency interruption as referred to in clause 8.4 and where GGT did not provide notice as stipulated in clause 8.3(b).

9.4 Transportation Charges

The Transportation Charges resulting from the application of the Transportation Tariff for the Firm Service is the sum of the components:

(a) a Toll Charge

During the Service Period the Toll Charge in any Billing Period is the applicable Toll Tariff multiplied by the MDQ expressed in GJs for the Outlet Point multiplied by the number of Gas Days in the relevant Billing Period;

(b) a Capacity Reservation Charge

Subject to clause 9.7, during the Service Period the Capacity Reservation Charge in any Billing Period is the product of:

- (1) the applicable Capacity Reservation Tariff;
- (2) the distance, in pipeline kilometres, from the Inlet Point to the Outlet Point; and
- (3) the MDQ expressed in GJs for the Outlet Point multiplied by the number of Gas Days in the relevant Billing Period;

(c) a Throughput Charge

Subject to clause 9.7, during the Service Period the Throughput Charge for any Billing Period is the product of:

- (1) the quantity of Gas delivered during that Billing Period measured in GJs;
- (2) the applicable Throughput Tariff set out in the Firm Service Order Form; and
- (3) the distance, in pipeline kilometres, from the Inlet Point to the Outlet Point;

(d) a Used Gas Charge

The User shall pay the Used Gas Charge which is the product of:

- (1) the quotient of the User's actual quantity of Gas delivered at all Outlet Points in a Billing Period and the total quantity of Gas delivered from the Pipeline in the same Billing Period; and
- (2) GGT's reasonable assessment of its cost incurred for Used Gas in a Billing Period;

(e) a Supplementary Quantity Option Charge

The User shall pay the Supplementary Quantity Option Charge as defined in the Sixth Schedule; and

(f) a Quantity Variation Charge

The User will pay the Quantity Variation Charge as defined in the Sixth Schedule.

9.5 Other Charges

In addition the User shall pay the charges set out below as specified in the relevant Order Form:

(a) an Account Establishment Charge

for the establishment of an account for each Service, a once-only, non-refundable Account Establishment Charge, payable on the Date of Service Agreement for each Service;

(b) a Connection Charge

for the commencement of a Firm Service, a once-only Connection Charge, payable on the Date of Service Agreement, for each new Outlet Point and, a once-only Connection Charge for each additional Outlet Point nominated or provided during the Service Period;

(c) an Annual Account Management Charge

for the annual maintenance of each account, an annual account management charge, payable on the first Business Day in January during each Year of the Term of the Service Agreement; and

all other relevant charges under the Service Agreement including without limitation the charges set out in clause 11.4, if applicable.

9.6 Quantity Variation Charges

(a) Quantity Variation Charges are intended to constitute a potential disincentive to Users which do not utilise the Pipeline in the manner intended. Operational disturbances caused by such Users may potentially disadvantage all other Pipeline Users

(b) The Quantity Variation Charges as defined in the Sixth Schedule may be applied or waived solely at GGT's discretion. Waiver of the application of any such charges at any time does not constitute any precedent for waiver of the application of such charges at any time in the future.

(c) Notwithstanding clause 9.6(b), GGT will waive a User's liability for an Accumulated Imbalance Charge and a Variance Charge where the liabilities are incurred during a period of interruption or reduction of Services that is the direct responsibility of GGT.

9.7 Multiple Outlet Points

There is only one Inlet Point to the Pipeline located at Yarraloola. Where a User has more than one Outlet Point, the Capacity Reservation Charge and the Throughput Charge will be calculated using the distance between the Inlet Point and each Outlet Point and the MDQ for the corresponding Outlet Point.

9.8 Tariffs and Charges Adjustment for Inflation

For the purpose of this clause, the charge applicable in any Billing Period shall be the charge specified in the Order Form adjusted by:

any changes in CPI calculated as follows:

$$C_t = C_b \times CPI_{t-2} / CPI_b$$

Where :

- C_t is the relevant charge in the Quarter t in which the Billing Period occurs;
- C_b is the relevant charge as specified in the Sixth Schedule; ~~applicable at the Date of Service Agreement~~;
- CPI_{t-2} is the CPI for the Quarter ended three months prior to the commencement of Quarter t ; and
- CPI_b is the base CPI, and is 144.8 as at the quarter ending 20 June 2004 ~~120.2~~.

9.9 Specified Event

In addition to the tariffs and charges payable under this Service Agreement, the User shall pay to the Owners an amount as reflected in any Specified Event pursuant to clause 5.3(c) of the Access Arrangement.

~~9.9 Taxes~~

~~In addition to the tariffs and charges payable under this Service Agreement, the User shall pay to the Owners an amount equal to any tax, duty, impost, levy or other charge (but excluding income tax) imposed by the government or other regulatory authority from time to time on or incurred by GGT or the Owners in respect of the Service provided pursuant to the Service Agreement (including without limitation, any increase of any such tax, duty, impost, levy or other charge) at the same time and in the same manner as the User is obliged to pay for the Service plus any tax or impost on the transfer or retransfer of the ownership of~~

9.10 Rounding

- (a) All amounts per GJ to be paid pursuant to this clause shall be expressed in cents to 6 decimal places per GJ of Gas.
- (b) All quantities of gas shall be rounded to the nearest whole Gigajoule.

9.11 Goods and Services Tax

- (a) Words or expressions used in this clause 9.11 which are defined in the A New Tax System (Goods and Services Tax) Act 1999 (Cth) or, if not so defined, then which are defined in the Trade Practices Act 1974 (Cth), have the same meaning in this clause.
- (b) For the purposes of the Service Agreement where the expression GST inclusive is used in relation to an amount payable or other consideration to be provided for a supply under the Service Agreement, the amount or consideration will not be increased on account of any GST payable on that supply.
- (c) Any consideration to be paid or provided for a supply made under or in connection with the Service Agreement, unless specifically described in the Service Agreement as GST inclusive, does not include an amount on account of GST.
- (d) Despite any other provision in the Service Agreement, if a party (Supplier) makes a supply under or in connection with the Service Agreement on which GST is imposed (not being a supply the consideration for which is specifically described in this Agreement as GST inclusive):
 - (1) the consideration payable or to be provided for that supply under the Service Agreement but for the application of this clause (GST exclusive consideration) is increased by, and the recipient of the supply (Recipient), must also pay to the Supplier, an amount equal to the GST payable by the Supplier on that supply; and
 - (2) the amount by which the GST exclusive consideration is increased must be paid to the Supplier by the Recipient without set off, deduction or requirement for demand, at the same time as the GST exclusive consideration is payable or to be provided.
- (e) If a payment to a party under the Service Agreement is a reimbursement or indemnification, calculated by reference to a loss, cost or expense incurred by that

party, then the payment will be reduced by the amount of any input tax credit to which that party is entitled for that loss, cost or expense.

- (a) ~~Notwithstanding any other term or condition set out herein, GGT is entitled to pass on as part of the Transportation Charges, Quantity Variation Charges, Used Gas Charges for the Service and any other charges, and recover from the User the amount of any GST levied upon GGT or payable by GGT in respect of the Service supplied under a Service Agreement;~~
- (b) ~~If, the amount of GST applicable to the Service supplied under a Service Agreement is subsequently increased or decreased by a GST Rate Change then the amount of any GST charged on the Service supplied will vary proportionately with the movement in the GST Rate Change;~~
- (c) ~~Despite any provision of a Service Agreement to the contrary, if the introduction of a GST, or a subsequent GST Rate Change is accompanied by or undertaken in connection with the abolition of or reduction in any existing taxes (including income tax), then the amount (excluding the GST) payable by the User will be reduced by the same proportion as the actual total costs of GGT (including any taxes but excluding any input GST paid or payable by GGT) are reduced as a consequence of the abolition of or reduction in taxes, whether directly by way of the abolition of or a reduction in taxes paid or payable by GGT to its suppliers or to any government, or indirectly by way of a reduction in the prices (excluding GST) charged by the suppliers to GGT;~~
- (d) ~~Upon the introduction of a GST, or subsequent GST Rate Change, the User and GGT shall, as soon as possible thereafter endeavour to agree an adjustment to the Transportation Charges, Quantity Variation Charges, Used Gas Charges, and any other charges to reflect the impact on the net economic benefit derived by GGT from the provision of the Service under a Service Agreement of any contemporaneous or related change in the imposition of any other taxes, imposts or duties levied under legislation of the Commonwealth of Australia or the State of Western Australia which are intended to compensate in whole or in part for the imposition of the GST or GST Rate Change. If GGT and the User are unable to agree an appropriate adjustment within 90 days, either GGT or the User may refer the matter for resolution under clause 22;~~
- (f) ~~If the introduction of a rate of GST is increased above 10 (ten) percent then the parties must agree to, or a subsequent GST Rate Change alters the CPI then the parties agree to adjust the CPI-Escalator to reflect the real change in the CPI that would have been calculated by the CPI-Escalator but for the introduction of increase in the rate of the GST or the subsequent GST Rate Change. If GGT and the User are unable to agree on an appropriate adjustment to the CPI-Escalator within 90 days, either GGT or the User may refer the matter for resolution under clause 22;~~
- (f) ~~If the Commonwealth Government requires GGT to collect and pay GST on dates that precede the User's obligation to pay for the Service supplied under a Service Agreement then GGT and the User agrees to review the existing payment arrangements under that Service Agreement so as to synchronise the timing of the User's payments with the timing of GGT's GST payments to the Commonwealth Government. If GGT and the User are unable to agree an appropriate payment arrangement within 90 days, either GGT or the User may refer the matter for resolution under clause~~
- (g) ~~For the purposes of this clause 9.11, the following expressions have the meaning shown:~~
 - ~~— GST means any goods and services tax, sales tax, use tax, consumption tax, value-added tax or any similar tax or duty levied upon GGT or payable by GGT in respect of the Service supplied under a Service Agreement and includes any GST Rate Change; and~~
 - (h) ~~GST Rate Change means an increase or decrease in the amount of GST by reason of:~~

- ~~(1) an alteration in the applicable law;~~
- ~~(2) the issue of or an alteration in a ruling or advice of the authority responsible for administering the GST;~~
- ~~(3) the allowance to GGT of a refund of GST in respect of the Service supplied under this Agreement; or~~
- ~~(4) a decision of the Administrative Appeals Tribunal (or its equivalent) or a court.~~

9.12 Charges When Flows are Restricted

In circumstances where the flow of Gas is restricted in accordance with clauses 8 and 17, all tariffs and charges will continue to apply.

9.13 Bond/Deposit

- (a) Prior to the Commencement Date, or such other date as may be agreed by the parties, the User shall pay a deposit to GGT or arrange a bank or other person acceptable to GGT acting reasonably (Surety) to post a bond, deposit or other security having regard to the:
 - (1) nature and extent of the User's obligations under the Service Agreement;
 - (2) financial position of the User and the User's parent company (where applicable);
 - (3) riskiness of the User's project in regard to which the Service is required; and
 - (4) whether provision of the Service to the User requires expenditure of additional capital.
- (b) ~~equivalent to the amount specified in the applicable Order Form by way of security for the performance by the User of its obligations under the Service Agreement. In the event that at the end of any Year during the Term of the Agreement, the User increases its MDQ or other obligations in respect of charges, GGT may require (and the User hereby agrees) that the amount of the bond, deposit or other security shall be correspondingly increased from the beginning of the next Year.~~
- (c) If a deposit is paid then GGT shall deposit the amount in an interest bearing account maintained with a reputable financial institution to be held pending the complete performance by the User of its obligations under the Service Agreement or any default by the User under clause 16.1. If the User defaults under clause 16.1 then in addition to its remedies thereunder GGT may operate the account and apply all principal and interest therein towards remedying the default, if it is capable of remedy. Upon the expiry of 6 months from the completion of all of the User's obligations GGT will pay to the User the balance of the account less any charges or Taxes but including any accrued interest balance.
- (d) The bond shall be in the form of the performance bond attached as the Fifth Schedule and the User shall be responsible for all costs and expenses and stamp duty incurred in the preparation and delivery of a duly executed and stamped bond in this form. If the User defaults under clause 16.1 then in addition to its remedies thereunder, GGT may enforce the bond in accordance with its terms towards remedying the default. Upon the expiry of 6 Months from the completion of the User's obligations under the Service Agreement, GGT must discharge and release the Surety from its obligations under the bond.

637. Amendment 18 of the Amended Draft Decision required that the Access Arrangement and General Terms and Conditions be amended to establish an obligation for GGT to provide Users with information on the quantity of Used Gas and the price(s) paid by GGT for the purchase of gas for system-use purposes. GGT has responded to this

required amendment by revision of clause 13 of the General Terms and Conditions (rather than clause 9) to include a new clause 13.2(h) as follows:

13.2 Contents of Invoices

The invoices rendered pursuant to clause 13.1 shall include:

...

- (h) the quantity of Used Gas used, consumed or lost in the Billing Period and the purchase price(s) paid by GGT for gas for system-use purposes used, consumed or lost in that Billing Period.

638. The new clause 13.2(h) entails and obligation for GGT to provide information on Used Gas to Users with Invoices. The Authority is satisfied that this revision incorporates Amendment 18.

639. The revisions made by GGT to clause 9 of the General Terms and Conditions include revisions to address Amendments 19 to 22 of the Amended Draft Decision.

640. Amendment 19 required that:

Clauses 9.9 and 9.11 of the General Terms and Conditions should be amended to remove provision for the pass through of tax imposts on GGT either as a charge in addition to the Reference Tariff or as an adjustment to the Reference Tariff, or GGT's Access Arrangement should be amended to provide a relevant mechanism for adjustment of the Reference Tariff in accordance with the provisions of section 8.3 to 8.3H of the Code.

641. GGT has revised the General Terms and Conditions to remove the original clause 9.9 (providing for the pass through of the cost of taxes to the User) and replaced it with a new clause that makes provision for a User to pay an amount determined under clause 5.3(c) of the revised Access Arrangement. Clause 5.3 of the revised Access Arrangement is as follows:

5.3 ~~Variation of Transportation Tariff~~ Approved Reference Tariff Variation Method

Except as expressly provided in the Service Agreement, the Transportation Tariff will be adjusted by:

- (a) CPI in accordance with clause 9.8 of the General Terms and Conditions; and
 - (b) a "Specified Event" as referred to in clause 5.3(c) (being a Tax Change Event or a Regulatory Change Event).
 - (c) GGT has established the Transportation Tariff for the Reference Service on the basis of Taxes and regulatory requirements applying at 30 September 2004. If:
 - (1) a Tax Change Event, being any new or increased Tax, occurs during the Term of the Agreement, GGT has a discretion to adjust the Transportation Tariff to recover the financial impact of those new or increased Tax; or
 - (2) during the Term of the Agreement:
 - (A) a Tax Change Event, being a material reduction in the level of Taxes below the level assumed by GGT in deriving the Transportation Tariff occurs; or
 - (B) a Tax Change Event being a removal of Tax occurs;
- and that Tax Change Event has a significant impact on the level of GGT's costs, GGT will adjust the Transportation Tariff to recover the financial impact of those reductions or removals of the Taxes (as the case may be); or

- (3) there is a Regulatory Change Event, GGT may adjust the Transportation Tariff to reflect the financial impact of that change.
- (d) Before GGT adjusts the Transportation Tariff as provided for in clause 5.3(c) GGT must:
 - (1) provide a written notice to the Regulator specifying the new, increased, reduced or removed Taxes or Regulatory Change Event (as the case may be); the scope of the financial impact; explaining how the claim is consistent with clause 5.3(c); the proposed variations to the Transportation Tariff and an effective date for the changes (a Specified Event Notice); and
 - (2) use reasonable endeavours to provide the Regulator with documentary evidence (if available) which substantiates the financial impact set out in the Specified Event Notice.
- (e) GGT may submit one or more Specified Event Notices each Year. This notice may incorporate a number of claims relating to the changes. For the purposes of section 8.3D(b)(i) of the Code the minimum notice period for a Specified Event Notice is 15 Business Days.
- (f) For the avoidance of doubt, any Transportation Tariff variation relating to a Tax Change Event or Regulatory Change Event must be conducted in accordance with sections 8.3D to 8.3H of the Code.

642. The terms “Tax Change Event” and “Regulatory Change Event”, and related terms, are defined by GGT in Appendix 1 of the revised Access Arrangement as follows.

Regulatory Change Event means:

- (a) the introduction of new or revised or procedural requirements other than those applying to Service Providers on the Relevant Date, including from the introduction of retail gas contestability in Western Australia; or
- (b) changes to the GGP Act, GGP Agreement, Gas Pipelines Access (Western Australia) Act 1998 (WA), the Code or the Economic Regulation Authority Act 2003 (WA); or
- (c) the introduction of new or revised requirements under the Code which are more complex than those applying at 30 September 2004 which affect the management and operation of the Pipeline and have a material financial impact on GGT.

...

Tax Change Event means:

- (a) the introduction of new or increased Taxes other than those applying to Service Providers on 31 December 2004;
- (b) the reduction in the level of Taxes below the level assumed by GGT in deriving the Transportation Tariff; and
- (c) the removal of any Taxes other than those applying to Service Providers on 31 December 2004 and where:
 - (1) those Taxes are exogenous;
 - (2) the amounts involved are material; and
 - (3) the detriment or benefit (as the case may be) to GGT is significant.

Taxes means taxes, charges, levies, duties, imposts and fees imposed or levied by, or payable to a Governmental Authority.

Tax Pass Through Notice means a written notice to the Regulator referred to in clause 5.3(d) of the Access Arrangement.

643. GGT has responded to Amendment 19 by inclusion in the revised Access Arrangement of a Reference Tariff Variation Method as allowed under sections 8.3A to 8.3H of the Code, and in relation to changes in taxation regimes or regulatory regimes that have a material impact on costs incurred by GGT. The provisions for variation of tariffs include, as required by sections 8.3A to 8.3H, definitions of the Specified Events that may give rise to a tariff variation, and a requirement for GGT to provide a notice to the Authority of a proposed tariff variation. GGT has also indicated that a tariff variation is subject to the provisions of sections 8.3A to 8.3H of the Code, indicating that a tariff variation is subject to the assessment and approval of the Authority.
644. The Authority is satisfied that the provisions of the revised Access Arrangement for tariff variation are in accordance with sections 8.3A to 8.3H of the Code and that these provisions incorporate the requirements of Amendment 19.
645. Amendments 20 and 21 of the Amended Draft Decision required revision of the proposed Access Arrangement to make provision for the waiving of tariff charges and the Accumulated Imbalance Charge and Variance Charge in circumstances of interruptions to the Reference Service.

Clauses 9 (and clauses 17 and 18, as necessary) of the General Terms and Conditions should be amended to provide for the waiving of charges in circumstances of, and to the extent that, interruption of Services occurs. These circumstances should include interruptions to Services arising by virtue of maintenance requirements where GGT has not given at least 30 days notice of the interruption, and interruptions occurring as a result of a force majeure event where GGT is the party claiming the benefit of force majeure. (Amendment 20)

Clause 9 of the General Terms and Conditions should be amended to provide for the waiving of User liabilities for the Accumulated Imbalance Charge and the Variance Charge where the liabilities are incurred as a result of Service interruptions. (Amendment 21)

646. GGT has revised clause 9.3 of the General Terms and Conditions to indicate that the Toll Charge and Capacity Reservation Charge components of the Reference Tariff are not payable where the User is unable to deliver or accept gas due to an event of force majeure claimed by GGT, or where there is an interruption or reduction in the Reference Service occurring other than as a consequence of an emergency interruption (as defined under clause 8.4 of the revised General Terms and Conditions) or where an interruption occurs as a result of planned maintenance and affected Users had not been given at least 30 days notice of a likely interruption or reduction in services (as provided for under clause 8.4 of the revised General Terms and Conditions).
647. GGT has also revised clause 17.2 of the General Terms and Conditions, relating specifically to *force majeure*, as follows:

17.2 User Obligated to Pay Moneys

(a) Notwithstanding clause 17.1, if an event of Force Majeure is claimed by the User, then the User shall not be relieved from liability to pay moneys due (including the Toll Charge and the Capacity Reservation Charge which shall continue to accrue and be payable notwithstanding the Force Majeure) or to give any notice which may be required to be given pursuant to the Service Agreement.

(b) The User is relieved of its obligation to pay the Toll Charge and the Capacity Reservation Charges where the User is unable to deliver or accept Gas due to an event of Force Majeure claimed by GGT and GGT shall include a credit for the value

[of the Toll Charge and the Capacity Reservation Charges applicable to the period of Force Majeure in the User's next invoice as provided for in clause 13.2\(e\).](#)

648. GGT has revised clause 9.6 of the General Terms and Conditions to indicate that the Accumulated Imbalance Charge and Variance Charge are waived where liabilities for these charges are incurred during a period of interruption or reduction of services that is the direct responsibility of GGT.
649. The Authority is satisfied that that these revisions address the requirements of Amendments 20 and 21 of the Amended Draft Decision, except as follows. The Authority notes however that clause 9.11 of the General Terms and Conditions as originally proposed (clause 9.12 of the revised General Terms and Conditions) has been retained, which indicates that where the flow of gas is restricted in accordance with clauses 8 and 17 of the General Terms and Conditions relating to circumstances of interruption of a Service), all tariffs and charges will continue to apply. The Authority considers this clause is inconsistent with the revisions made to satisfy Amendments 20 and 21, and this clause would need to be either deleted or made subject to clauses 9.3 and 9.6 of the revised General Terms and Conditions before the Authority would be satisfied that the revisions incorporate Amendments 20 and 21.

Final Decision Amendment 19

Clause 9.12 of the General Terms and Conditions included in the revised Access Arrangement should either be deleted or made subject to clauses 9.3 and 9.6 of the General Terms and Conditions.

650. Amendment 22 of the Amended Draft Decision required that the clause 9.13 of the General Terms and Conditions be revised:

Clause 9.13 of the General Terms and Conditions should be amended to specify a reasonable basis on which a bond, deposit or other surety is determined and to provide for that value to be decreased where there is a decrease in the User's MDQ, on a basis similar to that for determining increases in the value where there is an increase in the User's MDQ.

651. GGT has responded to this required amendment by revising clause 9.13 of the revised General Terms and Conditions to indicate a range of factors that would be taken into account in determining the value of any required bond, deposit or other security. These factors relate generally to a consideration of the credit risk to GGT in Users making payments due under a Service Agreement. The factors also include a consideration of whether provision of the Service to the User required expenditure of additional capital.
652. GGT appears to misunderstand the nature of the amendment required. GGT interprets the Authority's amendment as requiring a description of factors that may be taken into account in determining the nature and extent of surety which may be required.
653. This was not the intent of the Authority. Rather, the intent of the Authority was to ensure that GGT is constrained to acting reasonably in establishing the value of a bond, deposit or security. This is consistent with clauses in existing Access Arrangements for a number of other pipelines:

- (a) Clause 21.4 of the DBNGP Access Arrangement provides that Epic Energy may require security provided that "Epic Energy is not satisfied that the Shipper is in a

position to meet or continue to meet its obligations under an Access Contract”. Clause 21.3 provides a mechanism for Epic Energy to seek confirmation from the Shipper that the Shipper is in a position to meet its obligations under an Access Contract.

- (b) Clause 7 of Schedule 7 of the AlintaGas Access Arrangement provides that AlintaGas may require a user to provide AlintaGas with security, but the security “may only be of such type and such extent as is the minimum amount necessary to protect [AlintaGas’s] legitimate business interests”.
 - (c) Clause 12.8 of the Moomba to Sydney Access Arrangement provides that a Prospective User may be required to provide reasonable security in the form of a parent company guarantee or a bank guarantee or similar security. The nature and extent of the security will be determined having regard to the nature and extent of the obligations of the Prospective User under the Transportation Agreement.
 - (d) Clause 81 of Attachment D of the Moomba to Sydney Access Arrangement provides that the User may be required, as a pre-condition of and prior to entering into the Transportation Agreement, to provide and maintain a financial security for the due and proper performance of its obligations under the Transportation Agreement, in the form of an appropriate guarantee or letter of credit, or parent company guarantee.
654. The Authority considers that the revisions made by GGT in response to Amendment 22 do not adequately constrain GGT to acting reasonably in the setting of the value of a bond, deposit or security.
655. GGT has not revised the General Terms and Conditions to provide for the value of a bond, deposit or other security to decrease where there is a decrease in the User’s MDQ, on a basis similar to that for determining increases in the value where there is an increase in the User’s MDQ. In a submission made to the Authority, GGT has objected to this required amendment contending that a reduction in a User’s MDQ does not necessarily correspond to a reduction in the risk faced by GGT in providing a service to that User, with a reduction in MDQ potentially indicating financial difficulties of the User and hence an increased risk of default on payments.
656. The objection put forward by GGT is not considered valid. The relevant risk to GGT relates to a risk of invoices not being paid by Users. The value of invoices, and hence the exposure of GGT to unpaid invoices, would vary in direct proportion to contracted MDQ.
657. The Authority is therefore not satisfied that the revised Access Arrangement incorporates Amendment 22 or otherwise addresses the reasons for Amendment 22.

Final Decision Amendment 20

Clause 9.13 of the General Terms and Conditions of the revised Access Arrangement should be amended to specify that GGT will act reasonably in determining the value of a bond, deposit or other surety. Clause 9.13 should also be amended to provide for the value of a bond, deposit or other surety to be decreased where there is a decrease in the User's MDQ, on a basis similar to that for determining increases in the value where there is an increase in the User's MDQ.

658. GGT has made several other revisions to clause 9 of the General Terms and Conditions that are unrelated to required amendments under the Amended Draft Decision. These include:
- a new clause 9.4(f) that includes Quantity Variation Charges in the list of charges payable by Users;
 - revision of clause 9.8, comprising the formula for inflation adjustment of charges specified in the Order Form; and
 - revision of clause 9.11 providing for Users to pay the goods and services tax.
659. These revisions are considered by the Authority to comprise improvements to drafting of the General Terms and Conditions and to reflect the efflux of time in the process of assessment and approval of the proposed Access Arrangement. The Authority does not consider that the revisions materially affect the rights and obligations of Users and therefore does not oppose the revisions.

Gas Quality and Delivery Conditions

660. Clause 10 of the General Terms and Conditions establishes a gas-quality specification for gas received into the GGP. The gas-quality specification is provided in the Fourth Schedule to the General Terms and Conditions.
661. Clause 10 also:
- establishes the User as being liable for any losses, damages or financial consequences resulting from out-of-specification gas being received into the pipeline on behalf of the User; and
 - indicates that neither GGT nor the owners of the GGP make any representation as to the merchantability or suitability for any purpose of the gas received at Outlet Points.
662. Under the Amended Draft Decision the Authority accepted the provisions of clause 10 to be reasonable.
663. While no amendments to clause 10 were required under the Amended Draft Decision, GGT has made a revision to clause 10.4 as follows:

10.4 User's Responsibility for Non-Specification Gas

If the User delivers or tenders for delivery Non-Specification Gas into the Pipeline, the User continues to be responsible for all charges as if Gas in accordance with the Gas Specification had been delivered into the Pipeline and in addition shall be liable for any loss, damage or financial or other consequences flowing therefrom and [notwithstanding the limitation in clause 18.2](#), will indemnify and defend the Owners and GGT against all claims, losses (including direct and indirect and consequential losses), expenses or liabilities arising therefrom and GGT shall have the right to take any necessary action at the User's expense to resolve any problems arising therefrom.

664. GGT has submitted that this revision has been made for consistency with clause 18.2 which reads (and has been revised) as follows:

18.2 Direct Losses Only

Subject to clause 10.4, if for any reason it is determined that a party (Liable Party) is liable to the other party for breach of the Service Agreement, the liability of the Liable Party to the other party shall never exceed the direct loss or damage sustained by the other party resulting from or arising out of that breach (direct losses) and under no circumstances will the Liable Party be liable to the other party:

- (a) in contract, tort (including negligence) or otherwise for any and all loss or damage in the nature of:
 - (1) consequential, special, contingent, penal or other indirect loss or damage, loss of revenue, income, profits, business, opportunity or anticipated savings, loss or anticipated loss of use, production; or
 - (2) business interruption; or
- (b) for any and all claims, demands, actions or proceedings by third parties, [\(including any person contracting or dealing with or relying upon the provision of goods and services by the other party or having a legitimate expectation as to the reliability of the supply of gas by the other party howsoever caused\)](#) and any costs or expenses in connection therewith, that are not otherwise covered by clause 18.2(a).

665. The effect of the revision of clause 10.4 is to make explicit that an indemnity against liability for indirect losses does not extend to indirect losses arising from delivery into the pipeline of non-specification gas. The Authority accepts that this revision clarifies the expression of the terms and conditions. The Authority does not consider that the revisions materially affect the rights and obligations of Users and therefore does not oppose the revisions.

Measurement of Gas

666. Clause 11 of the General Terms and Conditions relates to the measurement of gas, including the obligations and arrangements for measurement of commingled gas streams and liability for costs associated with measurement equipment and activities. Clause 11 includes provisions relating to:

- attribution between Users of gas received at the Inlet Point;
- operation by GGT of Outlet Facilities at Outlet Points;
- attribution between Users of gas delivered at shared Outlet Points;

- technical requirements for measuring equipment at the Inlet Point and at Outlet Points;
 - a requirement for Users to bear the costs of installing, operating and maintaining facilities at the Inlet Point and at Outlet Points; and
 - testing of metering equipment.
667. Under the Amended Draft Decision the Authority accepted the provisions of clause 11 to be reasonable.
668. GGT has made minor drafting revisions of an editorial nature to clause 11. The Authority does not consider that the revisions materially affect the rights and obligations of Users and therefore does not oppose the revisions.

Representations and Warranties of the User

669. Clause 12 of the General Terms and Conditions sets out the representations and warranties made by a User under a Service Agreement.
670. The Authority took the view in the Amended Draft Decision that the provision of clause 12.1(m) was unreasonable. This clause read:
- 12.1 Representations and Warranties
- The user represents and warrants as follows:
- ...
- (m) neither the User nor any of its Related Bodies Corporate has impliedly or expressly represented, including by silence or action to any person that a continuous supply of Gas is guaranteed and can be relied upon.
671. The Authority accepted that GGT is entitled, as much as possible, to reduce any risk to it associated with a User making unwarranted representations to third parties which may result in liability being attributed back to GGT. The Authority took the view, however, that it would generally be unreasonable for GGT to impose restrictions upon the ability of Users to enter into contracts or arrangements in which GGT is not a party. Moreover, the Authority took the view that clause 12.1(m) may provide for more than is required to protect GGT's interests, particularly in light of clause 12.2 which provides that the warranty is also taken to be given in respect of each day gas is delivered to the User by GGT or any amount is outstanding under the Service Agreement. Clauses 12.1(m) and 12.2 effectively require a User to provide a blanket warranty that a User has not, before entering into the Service Agreement and during the Service Agreement, guaranteed the supply of gas to any of its customers. Such a warranty is likely to impose a practical restriction on a User's ability to guarantee supply of gas in any contracts it enters into with third parties, irrespective of where a User intends to source the gas. The Authority took the view that this is unreasonable and in the Amended Draft Decision required the following amendment:

Clause 12.1(m) of the General Terms and Conditions should be amended so as to not prevent a User from entering into contractual arrangements with third parties in which the User guarantees a continuous supply of gas to another person. (Amendment 23)

672. GGT has revised the general terms and Conditions to delete clause 12.1(m). The Authority is satisfied that this revision incorporates Amendment 23.

Invoicing and Payment

673. Clause 13 of the General Terms and Conditions contains provisions relating to invoicing and payment, including:

- information provided with invoices;
- terms of payment;
- disposition of disputes; and
- remedy of incorrect invoices.

674. Clause 13.5 includes a requirement that a User pay the full amount of any disputed invoice prior to referral of the dispute to the dispute resolution procedure contained in clause 22. The Authority determined that this requirement is unreasonable and required the following amendment under the Amended Draft Decision.

Clause 13.5 of the General Terms and Conditions should be amended to allow for the non payment of disputed invoices, or the non payment of the disputed portion of an invoice, in instances of a manifest error in the invoice. (Amendment 24)

675. GGT made the following revision to clause 13.5:

13.5 Disputed Invoices

In the event of any dispute concerning an invoiced amount the User shall, within 14 days from the date it receives the invoice, notify GGT in writing identifying the amount in dispute and giving full reasons for the dispute. Notwithstanding this, then:

- (a) unless there is a manifest error whereby the User can elect not to pay the disputed portion of an invoice if acting reasonably and in good faith;
- (b) the User shall pay the full amount of the invoice; and;
- (c) the dispute will then be referred to the dispute resolution procedure contained in clause 22.

676. The Authority is satisfied that this revision incorporates Amendment 24.

677. GGT has also made revisions to clauses 13.2 and 13.7 of the General Terms and Conditions as follows.

13.2 Contents of Invoices

The invoices rendered pursuant to clause 13.1 shall include:

- (a) the quantity of Gas received from the User at the Inlet Point in the Billing Period;
- (b) the quantity of Gas delivered to the User at the Outlet Point(s) in ~~the~~ that Billing Period;
- (c) a statement of Quantity Variation Charges (if any) used by the User during ~~the~~ that Billing Period;
- (d) details of all charges payable pursuant to clause 9 for ~~the~~ that Billing Period;

- (e) a statement of adjustments (if any) made pursuant to clauses [9.4, 9.8, 17.2\(b\) and 18.5 for that Billing Period](#);
- (f) any additional tariffs and charges payable pursuant to the Service Agreement [for that Billing Period](#);
- (g) any ~~taxes~~ pursuant to clauses ~~9.9 and 9.11-10~~ for that Billing Period; and
- (h) [the quantity of Used Gas used, consumed or lost in the Billing Period and the purchase price\(s\) paid by GGT for gas for system-use purposes used, consumed or lost in that Billing Period.](#)

...

13.7 Incorrect Invoices

- (a) If it is found at any time that the User has been overcharged or undercharged and the User has actually paid the invoices containing such overcharge or undercharge then, within 30 days after such error has been discovered and the correct amount has been agreed to by the parties or otherwise determined, the Owners shall refund to the User the amount of any such overcharge or the User shall pay to the Owners the amount of any such undercharge.
- (b) In both cases, the payor shall pay interest on the overcharged or undercharged amount at the Interest Rate calculated from the due date for payment of the appropriate invoice to the date of actual payment of the overcharged or undercharged amount provided that there shall be no rights [to claim interest](#) attaching to invoices if more than 12 months have elapsed since the date of the invoice [before the error is discovered](#).

- 678. The new clause 13.2(h) was included in the revised General Terms and Conditions to incorporate Amendment 18 and has been addressed above (paragraph 637 and 638).
- 679. The Authority considers the other revisions of clauses 13.2 and 13.7 to be in the nature of drafting improvements to the terms and conditions. The Authority does not consider that the revisions materially affect the rights and obligations of Users and therefore does not oppose the revisions.

Possession, Responsibility and Title

- 680. Clause 14 of the General Terms and Conditions relates to possession of, responsibility for, and title to gas, in particular providing for title to gas to pass from the User to GGT when gas is received at the Inlet Point, and for title to pass from GGT to the User when gas is delivered at an Outlet Point.
- 681. Under the Amended Draft Decision the Authority accepted the provisions of clause 14 to be reasonable.
- 682. GGT has not made any revision to clause 14.

Records and Information

- 683. Clause 15 of the General Terms and Conditions relates to the maintenance of records and information in relation to a Service Agreement, and establishes requirements to protect the confidentiality of information.

684. Under the Amended Draft Decision the Authority accepted the provisions of clause 15 to be reasonable.
685. GGT has not made any revision to clause 15.

Termination

686. Clause 16 of the General Terms and Conditions contains provisions relating to termination of a Service Agreement in the event of default by one of the parties to the Service Agreement.
687. The Authority noted in the Amended Draft Decision that provisions for termination of a Service Agreement are not symmetrical as between Users and GGT, and appear to favour GGT and the pipeline owners.
688. Clause 16.1 gives GGT the discretion to immediately terminate the Service Agreement if a User:

16.1 Default by the User

(a) If the User:

- (1) defaults in payment of any moneys payable under the Service Agreement for a period of 7 days following receipt of a notice of demand from GGT; or
- (2) defaults in the performance of any of the other obligations imposed upon it by the Service Agreement and, where such default is capable of remedy, fails to remedy or remove the cause or causes of default within a period of 30 days from the receipt of a notice from GGT to remedy or remove the default; or
- (3) suffers an Insolvency Event to occur,

then GGT may take action under clause 16.1(b).

(b) If clause 16.1(a) applies, then GGT may at its sole discretion:

- (1) suspend Service to the User until such time as all monies in default plus interest at the Interest Rate have been paid, any other default has been remedied or removed, or the Insolvency Event has been remedied or removed, as the case may be; or
- (2) by notice to the User immediately terminate the Service Agreement.

689. Clause 16.5(a) makes provision for a User to terminate the Service Agreement.

16.5 Default by the Owners

- (a) If the Owners default in the performance of material obligations imposed upon them by the Service Agreement and where such default is capable of remedy fails to proceed to remedy or remove the cause or causes of default within a period of 30 days from the receipt of a notice from the User to GGT to remedy or remove the default then the User may terminate the Service Agreement.
- (b) Notwithstanding clause 16.5(a):
 - (1) immediately upon receipt of any notice pursuant to clause 16.5(a), GGT must provide a copy of the notice to any mortgagee or chargee of the Owner's interest in the Service Agreement who has notified GGT of its mortgage or charge;

- (2) immediately thereafter, GGT must provide the User with the name, address and facsimile number of each mortgagee or chargee who has been sent a copy of the notice; and
 - (3) the User must not take any action to terminate the Service Agreement under clause 16.5(a) without first allowing the mortgagee or chargee a reasonable opportunity to remedy, or remove the causes of, the default.
690. In relation to these provisions, GGT submitted to the Authority that the termination provisions were adequately reciprocal due to clause 16.1(a) which contains provisions for reasonable periods for rectifying defaults and that such provisions applied equally to Users as a pre-requisite to the Service Provider's option to terminate.
691. It is evident from the provisions of clause 16 that GGT may terminate a User's Service Agreement for default in performance of any of a User's obligations in the Service Agreement. By comparison, a User may only terminate a Service Agreement if an owner of the GGP (as opposed to GGT) defaults in the performance of "material" obligations imposed upon them by the Service Agreement. There is no definition of what those "material" obligations might be. There may be very few such obligations imposed upon the owners of the GGP, particularly as the majority of obligations in the proposed Access Arrangement are imposed upon GGT rather than specifically upon the owners of the GGP. Furthermore, while there is explicit provision for GGT to have 30 days to remedy any default before a User may terminate the Service Agreement, a similar period for remedy of any default does not apply to a User.
692. Taking the above into account, the Authority considered that the termination provisions of the General Terms and Conditions are not reasonable and in the Amended Draft Decision required the following amendment:

The General Terms and Conditions should be amended so that provisions for termination of a Service Agreement are the same for both the User and the Service Provider and the owners of the GGP. A reasonable period of time must be provided for all parties to remedy or remove the cause or causes of default before a Service Agreement can be terminated. (Amendment 25)
693. GGT has addressed the requirements of Amendment 25 by the following revision of clause 16.5 of the General Terms and Conditions:

16.5 Default by the Owners

 - (a) If the Owners:
 - (1) default in the performance of material obligations imposed upon them by the Service Agreement and where such default is capable of remedy fails to proceed to remedy or remove the cause or causes of default within a period of 30 days from the receipt of a notice from the User to GGT to remedy or remove the default; or
 - (2) suffers an Insolvency Event to occur.

then the User may by notice to GGT, but subject to clause 16.5(b), immediately terminate the Service Agreement.
 - (b) Notwithstanding clause 16.5(a):
 - (1) immediately upon receipt of any notice pursuant to clause 16.5(a), GGT must provide a copy of the notice to any mortgagee or chargee of the Owner's interest in the Service Agreement who has notified GGT of its mortgage or charge;

- (2) immediately thereafter, GGT must provide the User with the name, address and facsimile number of each mortgagee or chargee who has been sent a copy of the notice; and
 - (3) the User must not take any action to terminate the Service Agreement under clause 16.5(a) without first allowing the mortgagee or chargee a reasonable opportunity to remedy, or remove the causes of, the default.
694. The primary concern of the Authority in requiring Amendment 25 was for provisions for termination of a Service Agreement to be the same for the User (clause 16.5 of the General Terms and Conditions) and the Service Provider and owners of the GGP (clause 16.1 of the General Terms and Conditions). The requirement was primarily directed at the qualification of *materiality* in respect of the non-performance of obligations by the owners of the GGP, which was not made in respect of non-performance of obligations by the User. GGT has not addressed this inconsistency in the revisions made to the General Terms and Conditions. As such, the Authority is not satisfied that the revised Access Arrangement adequately incorporates Amendment 25.

Final Decision Amendment 21

Clause 16.1 of the General Terms and Conditions of the revised Access Arrangement should be amended so that the circumstances in which GGT may terminate a Service Agreement are limited to default in the performance of material obligations imposed upon the User by the Service Agreement.

695. The requirement under Amendment 25 relating to the period of time for parties to remedy or remove the cause or causes of default before a Service Agreement can be terminated indicated a requirement that, whatever additional provisions were introduced, the period of time for parties to remedy or remove the cause or causes of default should remain reasonable. The Authority has not established that any provisions of the proposed terms and conditions are unreasonable in this respect and hence the Authority accepts a submission made by GGT that it is unnecessary to alter provisions that establish the period of time for parties to remedy or remove the cause or causes of default before a Service Agreement can be terminated, subject to these provisions applying equally to both Users and GGT once the Access Arrangement is amended.

Force Majeure

696. Clause 17 of the General Terms and Conditions provides for suspension of obligations of the owners of the GGP, GGT and the User under the Service Agreement in circumstances of *force majeure* events. The relief from obligations for Users does not extend to a relief from liability to pay money due, including the Toll Charge and the Capacity Reservation Charge which shall continue to accrue and be payable notwithstanding *force majeure*.
697. *Force majeure* is defined in Appendix 1 of the proposed Access Arrangement:

Force Majeure means an event or circumstance beyond the reasonable control of the Owners, GGT or the User, as the case may be, which results in or causes a failure by such party in the performance of any obligations imposed on it by the Agreement notwithstanding the exercise by such party of due diligence but excluding any measures which are not economically feasible to the

party, and shall include but shall not be limited to acts of God, earthquakes, floods, storms, tempests, washaways, fire, explosions, breakage of or accident to machines, pipelines, or associated equipment, nuclear accidents, acts of war, acts of public enemies, riots, civil commotions, strikes, lockouts, stoppages, pickets, industrial boycotts, restraints of labour or other similar acts (whether partial or general) acts or omissions of the Commonwealth of Australia or the State, shortages of labour or essential materials, reasonable failure to secure contractors, delays of contractors or factors due to overall world economic conditions or factors due to action taken by or on behalf of any government or governmental authority.

698. A submission was made to the Authority that any interruption of gas supply caused by a *force majeure* or by an emergency has the potential to cause significant commercial business loss to Users. Further, it was submitted that, as GGT has protected itself by removing its liability for such losses in the proposed Access Arrangement, it was inappropriate that charges and tariffs continue to apply in circumstances of an interruption of gas supply.
699. The Authority has addressed this issue and the required amendment of the proposed Access Arrangement in relation to the transportation charges and tariff (paragraphs 645 to 649).

Liability

700. Clause 18 of the General Terms and Conditions specifies liabilities of parties under, or affected by, the Service Agreement, including:
- limitation of liability for damages arising in the course of delivery of the Service to circumstances of a party's negligence or wilful default;
 - limitation of liability of GGT to a User to a maximum of one year of charges that would have been payable to the User;
 - limitation of liability of either party for breach of agreement to a liability for direct losses only;
 - establishing liability of the User for proximate losses of any employee of the User or party contracting or otherwise associated with the User, arising in respect of occurrences in the vicinity of the Inlet Point, the pipeline, or the Outlet Points, and a number of other premises; and
 - a partial reduction of the User's liability for the Capacity Reservation Charge and the Toll Charge where the Reference Service is interrupted for a period in excess of 48 hours and the interruption is directly or indirectly caused by GGT.
701. A submission made to the Authority suggested that the Authority examine the liability provisions under clause 18.1 to ensure that there are adequate levels of protection afforded to all parties. It was also submitted that the risk profile of GGT and a User may not be symmetrical and that this would affect determination of the appropriate treatment for liability and indemnity.
702. The Authority considered whether the effect of clause 18.1 would impose an unnecessary and unreasonable restriction on the ability of Users and the Service Provider to enter into contracts which limit their liability arising from those contracts.

703. Clause 18.1(c) limits the liability of GGT to an amount of no more than the equivalent of one year of charges which would have been payable by the User for the provision of the Service. There is no corresponding limit upon the User's liability. The Authority had no information before it that demonstrates any asymmetry of risk between GGT and Users that would justify the existence of limitations on liability for GGT but not for Users. In the absence of any such information, the Authority took the view that the bias towards GGT that is created in these circumstances is not reasonable and in the Amended Draft Decision required the following amendment.

Clause 18 of the General Terms and Conditions should be amended so that any limits on liability or other conditions relating to liability should apply to both the Service Provider and User. (Amendment 26)

704. Clause 18.2 of the General Terms and Conditions provides that where a party is found to have breached a Service Agreement, liability for damages arising out of that breach shall never exceed the direct loss or damage sustained as a result of the breach and that there shall be no liability for any indirect losses as set out in clause 18.2(a)(1), nor in respect of any claims, demands or actions by any third parties.
705. A submission made to the Authority suggested that as clause 18.2(a)(1) defines indirect losses very broadly to include not only loss of profit but also loss of revenue and income, the Authority should consider whether breach of the Service Agreement or negligence should lead, at least, to liability for gas lost.
706. The Authority noted that general industry practice is to provide for limitations of liability for direct losses, even for negligence, although a number of approved Access Arrangements have provided for greater liability in the case of gross negligence, wilful misconduct or fraud. Further, in all approved and proposed Access Arrangements of which the Authority is aware, the liability provisions are symmetrical. That is, both the User and the Service Provider are subject to any limitations regarding direct losses and are protected by the liability clauses.
707. The Authority took the view that it is reasonable for a Service Provider to seek to limit liability to direct losses on the symmetrical basis as proposed in the Access Arrangement.
708. Clause 18.3 of the General Terms and Conditions provides for:
- Users alone to be responsible and liable for payment of moneys by way of compensation in consequence of the occurrence of any injury, death or loss to any person employed by the User or any person contracting or dealing with the User; any loss of or damage to any property of the User or any person contracting or dealing with the User; any other loss incurred by the User or any person contracting or dealing with or relying upon the provisions of goods or services by the User; and
 - the User to indemnify the Owners or GGT or any person contracting with the Owners or GGT and their respective employees, agents and servants from and against all liabilities and expenses in connection with any claim, demand, action or proceeding brought by any person in respect of or in relation to any such injury, death, loss or damage, if that injury, death, loss or damage occurs in a proximate location as defined in clause 18.4.

709. A submission was made to the Authority suggesting that the Authority consider whether clause 18.3 might make a User liable for damages for events not reasonably within its control. The Authority took the view that the requirement of clause 18.3 for a User to indemnify GGT and related parties in respect of events that are not the fault of the User is unreasonable and unjustifiable on commercial grounds and required the following amendment in the Amended Draft Decision:

Clause 18.3 of the General Terms and Conditions should be amended so that the clause does not require a User to indemnify:

- (a) the Owners;
 - (b) GGT;
 - (c) any related entity to the Owners or GGT; or
 - (d) the employees, agents or servants of the parties listed in (a), (b) and (c) above.
- (Amendment 27)

710. Clause 18.5 of the General Terms and Conditions allows for a refund in average fixed charges (the “Toll Charge” and the “Capacity Reservation Charge”) in cases where supply is curtailed for more than 48 consecutive hours through either the direct or indirect fault of GGT. The refund is only available if the User makes an application within 14 days.

711. The Authority considered the issue of waiving of charges where there is an interruption in the Service (paragraph 626 and following, above). However, further to this, the Authority considered that the provision in clause 18.5 for relief from charges only if a User makes application within 14 days to be unreasonable and in the Amended Draft Decision required the following amendment:

Clause 18.5 of the General Terms and Conditions should be amended to remove the requirement for a User to make application for a refund or credit of fixed charges. (Amendment 28)

712. GGT has made revisions to clause 18 of the General Terms and Conditions as follows.

18.1 Limitation of Liability

- (a) Neither party shall be liable to the other party for any loss, injury, or damage arising directly or indirectly from:
 - (1) any act, omission, error, default or delay in respect of the provision, use or termination of Service under the Service Agreement;
 - (2) the failure by a party or one of its directors, officers, employees, contractors or agents to commence acceptance or delivery of Gas or other Services pursuant to the Service Agreement;
 - (3) any failure of any part of the Pipeline, Inlet Facilities or Outlet Facilities;
 - (4) any interruption or reduction of Service, receipts or deliveries of Gas or Non-Specification Gas (made in accordance with the Service Agreement or otherwise); or
 - (5) any act or omission of any other customer of a party and any other third party for whom such party is not responsible,

except, subject to clause 18.1(c), where the loss, injury or damage is the direct or indirect result of a party’s negligence or wilful default.

- (b) Nothing in this clause shall operate to limit the liability of the User to pay all appropriate tariffs and charges incurred pursuant to the Service Agreement, for which the User shall remain liable.
- (c) Notwithstanding anything provided in the Service Agreement, ~~the Owners~~ neither party, GGT and their contractors, ~~and their~~ officers, directors, employees and agents shall ~~not~~ be liable to the User other party for:
 - (1) any amount that is more than the equivalent of one Year of charges which would have been payable by the User for the provision of the Service; or
 - (2) any liability or loss including consequential loss suffered by the other party to the extent that the negligence of the other party contributes to this liability or loss.

18.2 Direct Losses Only

Subject to clause 10.4, if for any reason it is determined that a party (Liable Party) is liable to the other party for breach of the Service Agreement, the liability of the Liable Party to the other party shall never exceed the direct loss or damage sustained by the other party resulting from or arising out of that breach (direct losses) and under no circumstances will the Liable Party be liable to the

- (a) in contract, tort (including negligence) or otherwise for any and all loss or damage in the nature of:
 - (1) consequential, special, contingent, penal or other indirect loss or damage, loss of revenue, income, profits, business, opportunity or anticipated savings, loss or anticipated loss of use, production; or
 - (2) business interruption; or
- (b) for any and all claims, demands, actions or proceedings by third parties, (including any person contracting or dealing with or relying upon the provision of goods and services by the other party or having a legitimate expectation as to the reliability of the supply of gas by the other party howsoever caused) and any costs or expenses in connection therewith, that are not otherwise covered by clause 18.2(a).

...

18.5 ~~Reduction of Average Fixed Charges~~ Refunds and Credits

Notwithstanding clause 18.1:

- (a) where the Firm Service is not provided such that the User does not receive Gas for more than 48 consecutive hours and the failure or continuation of the failure to provide Gas is directly or indirectly caused by GGT, GGT will, on request by the User made within 14 days, is entitled to a refund or or give a credit to the User for each period of 24 hours for which the failure continues beyond the 48 consecutive hours;
- (b) The refund or credit will be calculated as "a ÷ 30.42" where "a" is the sum of the Capacity Reservation Charge and the Toll Charge payable in the Billing Period.

713. Amendment 26 required that clause 18 of the General Terms and Conditions be amended so that any limits on liability or other conditions relating to liability should apply to both the Service Provider and User. GGT has addressed this requirement by revision of clause 18.1(c) so as to cause the limits on liability originally applying to GGT to apply to all parties to a Service Agreement. The Authority is satisfied that this revision incorporates Amendment 26.

714. Amendment 27 required amendment of clause 18.3 of the General Terms and Conditions so as to remove that requirement for the User to indemnify GGT and related parties in respect of events that are not the fault of the User.
715. GGT has not revised the General Terms and Conditions to incorporate Amendment 27. GGT submits that the amendment is unreasonable and fails to consider the legitimate business interests of GGT. In particular GGT submits that:
- It is normal practice in the pipeline industry, for a User to indemnify a pipeline operator and other relevant parties concerning actions by that User, which impact on the pipeline operator and related parties. This is consistent with arrangements and obligations in many areas of business where a party at fault provides an indemnity in favour of those adversely affected by its behaviour. GGT is unaware of any compelling reason why this should not apply in the case of the GGP.
716. The issue with clause 18.3 identified in the Amended Draft Decision was that the requirement of clause 18.3 for a User to indemnify GGT and related parties in respect of events that are not the fault of the User is unreasonable and unjustifiable on commercial grounds.
717. Previous decisions by the Authority have allowed indemnities but they have not allowed open-ended indemnities that are unrelated to fault. For example:
- clause 13.4 of the DBNGP Access Arrangement provides an indemnity in favour of Epic from shippers for claims for loss or damage “except to the extent caused by the negligence of Epic Energy”.
 - clauses 19.1 and 19.2 of the Access Arrangement for the Parmelia Pipeline (prior to revocation of coverage for that pipeline) provided an indemnity in favour of CMS to the extent that the loss is caused by the User, its employees, representatives, agents or contractors, and clause 19.3 also provided a lengthy indemnity, but in each sub-clause there is an element of fault from the User or a requirement that CMS acted in good faith: that is, the indemnity is related to fault;
 - clause 25.1 of the Access Arrangement for the Tubridgi Pipeline System provides an indemnity in favour of the Tubridgi Parties for loss or damage as a result of the User’s breach of the agreement.
718. The Authority accepts GGT’s submission that indemnities are common practice in the pipeline industry, but considers that this should not extend to open-ended indemnities that are unrelated to fault. The Authority is therefore not satisfied that GGT has addressed the Authority’s reasons for Amendment 27. The Authority considers, however, that Amendment 27 should be reworded to make explicit that the Authority’s reasoning was not to require removal of the indemnity but to require that it be linked to fault rather than be open ended.

Final Decision Amendment 22

Clause 18.3 of the General Terms and Conditions of the revised Access Arrangement should be amended so that the clause does not require a User to indemnify:

- (a) the Owners;
 - (b) GGT;
 - (c) any related entity to the Owners or GGT; or
 - (d) the employees, agents or servants of the parties listed in (a), (b) and (c) above,
- from and against liabilities that are unrelated to any fault or action on the part of the User.

719. Amendment 28 required that clause 18.5 of the General Terms and Conditions be amended to remove the requirement for a User to make application for a refund or credit of fixed charges. GGT has addressed this amendment by revision of clause 18.5 and the Authority is satisfied that the revision incorporates Amendment 28.
720. In addition to revisions of clause 18 in response to required amendments, GGT has revised clause 18.2 to indicate that “third parties” includes “any person contracting or dealing with or relying upon the provision of goods and services by the other party or having a legitimate expectation as to the reliability of the supply of gas by the other party howsoever caused”. GGT has submitted to the Authority that this revision has been made in recognition of the outcomes of the gas explosion at Longford, Victoria, and the consequent interruptions to gas supplies in Victoria. The Authority does not consider that the revision materially affects the rights and obligations of Users and therefore does not oppose the revisions.

Insurances

721. Clause 19 of the General Terms and Conditions requires the User to hold certain insurances, including in relation to workers compensation, property damage (in relation to the Inlet Point and Outlet Points) and public liability. The User is required to arrange for endorsement on insurance policies of the interests of the owners of the GGP and GGT such that those interests are effectively insured under those policies and for the insurers to waive rights of subrogation against them.
722. Under the Amended Draft Decision the Authority accepted the provisions of clause 19 to be reasonable.
723. While no amendment to clause 19 was required under the Amended Draft Decision, GGT has revised Clause 19.1(c) to increase the amount of public liability insurance required to be held by a User from \$5 million to \$10 million, submitting to the Authority that this revision was made “due to current day insurance environment”.
724. The Authority takes the view that the revision to clause 19.1 materially affects the rights and obligations of a User and as this revision does not incorporate a required amendment under the Amended Draft Decision, nor otherwise addresses the reasons

for a required amendment. The Authority accepts, however, that a requirement for public liability insurance of \$10 million is a common requirement for commercial contracts and is consistent with normal commercial practice. On this basis, the Authority does not object to the revision.

Assignment and Transfers of Capacity

725. Clause 20 of the General Terms and Conditions sets out the rights of the owners of the GGP and the User to assign rights under the Service Agreement, the rights of the User to transfer capacity from or to another User, and the right of each party to the Service Agreement to use its interest in the Service Agreement as financial security. Clause 20 also indicates that GGT will publish details of Spare Capacity and Developable Capacity in the GGP.
726. Under the Amended Draft Decision the Authority did not take issue with clause 20 under the reasonableness criterion of section 3.6 of the Code. The Authority did, however, determine that clause 20 of the General Terms and Conditions is inconsistent with the requirements of the Code for the Trading Policy of an Access Arrangement. This matter is considered below (paragraph 747 and below) in relation to the Trading Policy.

Confidential Information

727. Clause 21 of the General Terms and Conditions sets out requirements for confidentiality of the Service Agreement.
728. Under the Amended Draft Decision the Authority accepted the provisions of clause 21 to be reasonable.
729. Despite no amendments to clause 21 being required under the Amended Draft Decision, GGT has revised clause 22.3 of the General Terms and Conditions as follows:

21.3 Required Disclosure

Nothing in this clause 21 restricts a party's obligation as is required by law, any legally binding order of a court or ~~government, governmental~~ Authority or ~~administrative body,~~ by the listing rules of any stock exchange, ~~or regulatory agency~~ having jurisdiction over the party or its ultimate holding company.

730. Related to this revision, GGT has revised Appendix 1 of the proposed Access Arrangement to include a definition of Governmental Authority:

Governmental Authority means a government, governmental authority or department, statutory authority, administrative authority or regulatory agency;

731. GGT has submitted to the Authority that this revision, and inclusion of the term “governmental authority”, has been made for the purpose of simplifying the existing list of entities. The Authority does not consider that the revision materially affects the rights and obligations of Users and therefore does not oppose the revisions.

Dispute Resolution and Arbitration

732. Clause 22 of the General Terms and Conditions establishes a mechanism for dispute resolution, involving stages of notification of a dispute, an obligation to use best endeavours to resolve the dispute by negotiation and recourse to arbitration. Clause 23 specifically makes provision for arbitration of a dispute in accordance with the *Commercial Arbitration Act 1985 (WA)*.
733. Under the Amended Draft Decision the Authority accepted the provisions of clauses 22 and 23 to be reasonable.
734. GGT has not made any revision to clauses 22 and 23.

Notices

735. Clause 24 establishes requirements for the issue of notices under the Service Agreement, relating generally to methods of delivery and deemed times of delivery.
736. Under the Amended Draft Decision the Authority accepted the provisions of clause 24 to be reasonable.
737. GGT has not made any revision to clause 24.

Waiver, Entire Agreement, Severability and Governing Law

738. Clauses 25 to 28 of the General Terms and Conditions comprise provisions relating to contractual issues:
- a delay or failure of a party to exercise rights under the Service Agreement not comprising a waiver of those rights;
 - the Service Agreement constituting the entire agreement between the parties and superseding any prior negotiations, representations or agreements between the parties;
 - the finding of any provision of the Service Agreement to be illegal or unenforceable not affecting the remainder of the Service Agreement; and
 - the Service Agreement being construed and interpreted in accordance with the law of Western Australia.
739. Under the Amended Draft Decision the Authority accepted the provisions of clauses 25 to 28 to be reasonable.
740. GGT has not made any revision to clauses 25 to 28.

Capacity Management Policy

741. Sections 3.7 and 3.8 of the Code require that an Access Arrangement include a Capacity Management Policy as follows:

- 3.7 An Access Arrangement must include a statement (a *Capacity Management Policy*) that the Covered Pipeline is either:
- (a) a Contract Carriage Pipeline; or
 - (b) a Market Carriage Pipeline.
- 3.8 The Relevant 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 Relevant Regulator permitting the Covered Pipeline to be a Market Carriage Pipeline.
742. Contract Carriage is a system of managing third-party access whereby:
- 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 the Contract;
 - Users are normally required to enter into a Contract that specifies a quantity of Service;
 - charges for use of a Service are normally based, at least in part, upon the quantity of Service specified in a Contract; and
 - a User normally has the ability to trade its right to obtain a Service to another User.
743. Market Carriage is a system of managing third-party access whereby:
- 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;
 - Users are not normally required to enter into a Contract that specifies a quantity of Service;
 - charges for use of Services are normally based on actual usage of Services; and
 - a User does not normally have the ability to trade its right to obtain a Service to another User.
744. GGT provides a Capacity Management Policy as Clause 11 of the proposed Access Arrangement, which indicates that GGT will manage the GGP as a Contract Carriage Pipeline.
745. The Code requires no more than a statement in the Access Arrangement that the GGP be a Contract Carriage Pipeline or, subject to Ministerial Approval for any proposal for the pipeline to be a Market Carriage Pipeline, a Market Carriage Pipeline. The Authority took the view in the Amended Draft Decision that as the proposed Access Arrangement states that the GGP is to be managed as a Contract Carriage Pipeline, the requirements of the Code are met.
746. GGT has not made any revisions to the Capacity Management Policy.

Trading Policy

747. Section 3.9 of the Code requires that an Access Arrangement for a Covered Pipeline that 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**”).
748. Section 3.10 of the Code requires that the Trading Policy must comply with the following principles.
- 3.10 (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.
749. Section 3.11 of the Code states that examples of things that would be reasonable for the purposes of paragraphs 3.10(b) and (c) are:
- 3.11 (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.
750. GGT provided a Trading Policy in clause 9 of the proposed Access Arrangement by reference to clause 20 of the General Terms and Conditions. Clause 20 of the General Terms and Conditions provides for:
- Bare Transfers of capacity (clause 20.6);

- other transfers of capacity (clause 20.7); and
 - assignment of rights of a User under a Service Agreement (clauses 20.1 to 20.5).
751. The Authority took the view in the Amended Draft Decision that it is not clear whether the provisions of the Trading Policy provide generally for transfer of contracted capacity between Users, or whether the provisions have application only to contracted capacity for the Reference Service.
752. Clause 9 of the proposed Access Arrangement enables the Service Provider to transfer or assign all or part of a User's rights under a Service Agreement. The circumstances under which these rights may be transferred or assigned are set out in detail in clause 20 of the General Terms and Conditions.
753. A Service Agreement is defined in the proposed Access Arrangement as a "Reference Service Agreement". However, the Code does not constrain a Trading Policy to apply exclusively to a Reference Service, as defined in the Code, but rather provides that a Trading Policy is to apply to all Services provided in respect of the Covered Pipeline.
754. GGT submitted that, due to the interaction of the State Agreement and the Code, it is not possible to apply the Trading Policy requirements of the Code to all capacity in the GGP. GGT has also submitted that, to the extent that the Code applies to capacity, the Trading Policy will apply to both Reference and Non-Reference Services.
755. In light of the decision of the Court in the WMC Decision,⁸⁶ the Authority took the view that nothing in the State Agreement affects the requirement in sections 3.10 and 3.11 of the Code which require the Trading Policy (and provisions for trading of pipeline capacity set out therein) to apply generally to capacity and Service contracts for a pipeline regardless of whether the Service contracts are or are not for a specific Service. The Authority thus took the view that the proposed Access Arrangement, with provisions for trading of capacity limited to contracts for the Firm Service, does not comply with this requirement. In the Amended Draft Decision, the Authority required the following amendment of the proposed Access Arrangement:
- Clause 9 of the proposed Access Arrangement should be amended so that provisions for the trading of capacity, as currently set out in clause 20 of the General Terms and Conditions, apply generally to all Services provided by the GGP. (Amendment 29)
756. In the Amended Draft Decision, the Authority considered specific provisions of the Trading Policy as set out in Clause 20 of the General Terms and Conditions for "Bare Transfers" and conditional transfers of capacity.
757. The Code defines a "Bare Transfer" as a transfer or assignment of all or part of a User's contracted capacity where the terms of the Contract with the Service Provider are not altered as a result of such transfer or assignment.

⁸⁶ WMC Decision, *ibid.*

758. Clause 20.6(b) of the General Terms and Conditions as originally proposed required certain information to be supplied to GGT by a “new User” of capacity transferred through a Bare Transfer before the “new User” can utilise the transferred capacity:

20.6 ...

- (b) As a condition to obtaining GGT’s consent, a User must advise GGT of the following:
 - (1) the portion of the User’s Capacity entitlement under the Service Agreement which is to be Transferred Capacity;
 - (2) the identity of the New User;
 - (3) the Outlet Point(s) to be utilised by the New User;
 - (4) the respective MDQ for the Inlet Point and Outlet Point(s);
 - (5) the term of the assignment or transfer of that Capacity entitlement to the New User; and
 - (6) any rights reserved by the User in the Transferred Capacity with respect to priority to Capacity in the event of an interruption or curtailment to the Service, or any other matter relevant to the respective rights of the User and New User.

759. The Authority took the view that clause 20.6(b) of the General Terms and Conditions is inconsistent with section 3.10(a) of the Code as it requires a transferee of capacity (or “new User”) to notify GGT of matters other than that the transferee is the entity which is going to utilise the portion of the contracted capacity subject to the Bare Transfer and of the nature of the contracted capacity subject to the Bare Transfer. In the Amended Draft Decision, the Authority required the following amendment to the proposed Access Arrangement:

Clause 20.6(b) of the General Terms and Conditions should be amended so that the information required to be supplied by a User to GGT in the case of a Bare Transfer is consistent with the requirements of section 3.10 of the Code. (Amendment 30)

760. In the Amended Draft Decision the Authority also considered the provisions for GGT to withhold consent to capacity transfers other than Bare Transfers, and the absence of explicit provision under the Trading Policy for operation of a secondary market service. The Authority found that in regard to both of these matters the Trading Policy proposed by GGT met the requirements of the Code.

761. GGT has not made revisions to clause 9 of the Access Arrangement of the proposed Access Arrangement as required by Amendment 29 and for the purpose of ensuring that provisions for the trading of capacity apply generally to all Services provided by the GGP. Rather, GGT submits that Amendment 29 is unreasonable as it conflicts with existing contractual rights of the GGT joint venturers and therefore section 2.25 of the Code. In support of this submission, GGT cited clause 8(1) of the State Agreement which it claims does not permit unilateral trading of capacity:

- 8.(1) Prior to submitting any proposal in relation to the matters referred to in paragraph (a) of subclause (1) of Clause 9, each of the Joint Venturers shall be entitled (and is hereby authorized by the State) to reserve to itself, for such period and on such terms as the Joint Venturers may agree, access to such of the transmission capacity of the Pipeline as it requires for the transmission of such gas as each Joint Venturer or its associates may require. The Joint Venturers shall not be obliged to charge each other or to pay tariffs for such access or for transmission services in respect of such gas and, subject to this Agreement, may make such

contractual arrangements between themselves in relation thereto as they see fit. The Joint Venturers shall advise to the Minister details of any such agreement at the time of submission of proposals under paragraph (a) of subclause (1) of Clause 9.

762. The Authority has considered GGT's submission but notes that while the State Agreement does not provide for the trading between Users of Initial Committed Capacity, neither do the provisions cited by GGT appear to preclude the trading of capacity. The Authority notes that clause 8(1) merely provides that the parties may make contractual arrangements between themselves in relation to their requirements for capacity. It is possible that the contractual arrangements between the joint venturers will not give rise to any available capacity for the term of the Access Arrangement. However, the Authority has not been provided with copies of the contractual arrangements between the joint venturers and is therefore unable to verify this position.
763. The Authority is therefore not satisfied that GGT has incorporated Amendment 29 into the revised Access Arrangement or otherwise addressed the reasons for this required amendment.

Final Decision Amendment 23

Clause 9 of the revised Access Arrangement should be amended so that provisions for the trading of capacity, as currently set out in clause 20 of the General Terms and Conditions, apply generally to all Services provided by the GGP.

764. In response to the requirement under the Amended Draft decision for Amendment 30, relating to the Bare Transfer of Capacity, GGT has amended clause 20.6 of the General Terms and Conditions as follows.

20.6 Bare Transfer of Capacity

- (a) GGT will permit a Bare Transfer in accordance with section 3.10 of the Code and accordingly:
- (1) A User is permitted to transfer or may assign or transfer to a third party (referred to as the New User) all the whole or any part of its rights and obligations under the Service Agreement (referred to in this clause 20.6 as the Transferred Capacity) without the consent of GGT provided if:
- (A) the User's obligations under the Service Agreement remain in full force and effect after the transfer or assignment of the Transferred Capacity; and
- (B) the terms of the Service Agreement are not otherwise altered as a result of the transfer or assignment to the New User (a Bare Transfer);
- (2) the New User must notify GGT prior to utilising the Transferred Capacity subject to the Bare Transfer and of the nature of the Transferred Capacity subject to the Bare Transfer.
- (b) GGT may request, The User must, prior to the use of the Transferred Capacity by the New User, and the User may, but is not required to provide, advise GGT of the following information to GGT:
- (1) the portion of the User's Capacity entitlement under the Service Agreement which is to be Transferred Capacity;
- (2) the identity of the New User;
- (3) the Outlet Point(s) to be utilised by the New User;

- (4) the respective MDQ for the Inlet Point and Outlet Point(s);
- (5) the term of the assignment or transfer of that Capacity entitlement to the New User; and

any rights reserved by the User in the Transferred Capacity with respect to priority to Capacity in the event of an interruption or curtailment to the Service, or any other matter relevant to respective rights of the User and the New User.

- (c) For the avoidance of doubt, the terms of the Service Agreement will be deemed to be altered as a result of the assignment or transfer and the User will not be able to effect a Bare Transfer if in the reasonable opinion of GGT, the Transferred Capacity and the rights retained by the User under the Service Agreement are in excess of the rights originally granted to the User under the Service Agreement.

765. The Authority is satisfied that these revisions incorporate Amendment 30.

Queuing Policy

766. 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**”).

767. 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.

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

769. GGT provided a Queuing Policy at clause 7 of the proposed Access Arrangement.

770. The Queuing Policy provides for Spare Capacity and Developable Capacity to be allocated on a “first-come first-served” basis with priority accorded to the date an order is received from Prospective Users by GGT for Spare Capacity and Developable Capacity. This appears to include situations where an existing User seeks to extend the term of an existing Service Agreement, or seeks to increase the MDQ pertaining to an existing Service Agreement (sub-clause 7.1(f)), except where GGT is under a legal or contractual obligation to do so outside of the provisions of the queuing policy (sub-clause 7.1(g)).

771. In the Amended Draft Decision the Authority noted that the first-come first-served principle is a common basis for Queuing Policies in other Access Arrangements for Australian transmission pipelines. The Authority accepted that some flexibility in a Queuing Policy for access to Spare and Developable Capacity may accommodate the

legitimate business interests of a Service Provider, Users and Prospective Users. However, the Authority is of the view that there are other mechanisms in the proposed Access Arrangement that provide flexibility in the priority of access to capacity that meet those legitimate business interests. These mechanisms include the right to trade capacity and the ability of Users and Prospective Users to enter into arrangements with the Service Provider to finance investment and expansions of capacity. The Authority therefore considers the first-in first-served basis of the Queuing Policy to be consistent with the requirements of section 3.13 of the Code.

772. Notwithstanding this, the Authority took the view that there is some ambiguity in the Queuing Policy as to the priority accorded to a request for capacity in the form of an existing User exercising an option to extend the term of a contract or to increase the contracted capacity under a contract. Sub-clause 7.1(e) of the Queuing Policy provides that, in instances where a User exercises an option to extend the term of an existing Service Agreement or gives notice to increase the contracted capacity or to extend the term of a Service Agreement, the exercise of such an option or the giving of such a notice is deemed to be a new application for Spare Capacity and/or Developable Capacity. Sub-clause 7.1(g), however, would seem to make the Queuing Policy subordinate to the exercise of an option that is a contractual right of an existing User.
773. The Authority did not consider there to be any cause under the objectives for a Queuing Policy for the Queuing Policy to have, as a general principle, prior rights being accorded to existing Users over “new” Users in applications for additional capacity. There is no *a priori* reason to consider that such a principle is necessarily consistent with the legitimate business interests of the Service Provider or of Users and Prospective Users, or would generate economically efficient outcomes. Nevertheless, the Authority did consider it to be consistent with the economically efficient use of the pipeline that a User should be able to enter into a contract with GGT that provides the User with an option to extend the term of the contract and/or provides for an increase in contracted capacity without either the extension of term or the increase in capacity being subject to the queuing provisions. Sub-clause 7.1(g) of the proposed Access Arrangement suggests that this is the intent of GGT, although the Authority considered that, consistent with the objective of section 3.13(a) of the Code, this should be made more explicit. The following amendment was required in the Amended Draft Decision:

The proposed Access Arrangement should be amended to clarify that a User is able to enter into a contract with GGT that provides the User with an option to extend the term of the contract and/or provide for an increase in contracted capacity without either the extension of term or the increase in capacity being subject to the queuing provisions. (Amendment 31)

774. GGT made the following revisions to clause 7 of the proposed Access Arrangement.

7.1 Queuing Policy for Provision of Service

- (e) If a User no later than 12 months prior to the expiry of the then Term of the Agreement:
- (1) gives a notice of exercises of an option under the Service Agreement to extend the initial Termination Date ~~Term of the Agreement;~~ and/or
 - (2) ~~gives notice under clause 6.10 of its desire to increase the MDQs or extend the Term of the Agreement;~~

~~(3) the exercise of the option or notice will be deemed to be a new application for Spare Capacity and Developable Capacity and the date GGT receives notice of the exercise of the option or request for increase or extension will determine the priority accorded to the new application.~~

(2) if the conditions precedent in clauses 6.5(e) and 6.5(f) have been satisfied then the User will be deemed not to be a Prospective User and will be allocated its then Firm Service Reserved Capacity at the Transportation Tariff for the duration of the extension, subject to continued performance of the terms and conditions of the Service Agreement by the User as though these terms had been incorporated into the existing Service Agreement.

(f) If a User:

(1) later than 12 months prior to the expiry of the then Term of the Agreement gives a notice of exercise of an option under the Service Agreement to extend the initial Termination Date; or

(2) makes under clause 6.10(a) an Application for Service Contract Variation then

(3) the exercise of the option or Application for Service Contract Variation (as applicable) will be deemed to be a new application for Spare Capacity and Developable Capacity and be in a position in the queue for Spare Capacity and Developable Capacity; and

(4) the User will be deemed to be a Prospective User and the date GGT receives notice of the exercise of the option or Application for Service Contract Variation will determine the priority accorded to the new application.

~~(f)~~(g) If Spare Capacity becomes available or Developable Capacity is provided, GGT will use all reasonable endeavours to notify Prospective Users of that Spare Capacity or Developable Capacity in an order and manner which has regard to the rights of Users under Existing Contracts.

~~(g)~~(h) The rights of any Prospective User under and the operation of this clause is subject to and conditional on GGT complying with and satisfying any legal or contractual obligations it has to provide additional Capacity under, or to extend the term of, an Existing Contract.

775. GGT has also made revisions to clauses 6.1, 6.9 and 6.10 of the Access Arrangement to incorporate Amendment 31:

6.1 Enquiry for Service

A Prospective User that wishes to apply to use the Reference Service must complete and supply the following particulars on, and information with, the Enquiry Form, execute and date the Enquiry Form and deliver it to GGT:

(a) the Prospective User's name and address and ~~ACN/ABN~~ ABN (if applicable);

(b) the:

(1) estimated Commencement Date and expected initial Termination Date for the Service; and

(2) if there is any proposed options for extension of the initial Term of the Agreement Termination Date, the date the option needs to be exercised and the proposed extended Termination Date;

(c) proposed Outlet Point(s);

(d) the anticipated MDQ at the Inlet Point and at each Outlet Point for each Year of the proposed Service Agreement;

- (e) any special requirements requested by the Prospective User;
- (f) the legal status of the Prospective User, its legal capacity including whether it is acting as trustee or as agent for any person and, creditworthiness of the Prospective User or its beneficiaries or principals as the case may be, and providing such information concerning the foregoing as GGT may require; ~~and~~
- (g) if applicable, an indication of its preparedness to contribute reasonable costs towards Investigations and Developable Capacity; and
- (h) whether the requested service is a Negotiated Service.

...

6.9 Execution of Service Agreement and Exercise of Option

- (a) GGT shall indicate its acceptance of an Order Form by executing and delivering the Service Agreement to the Prospective User, together with details of the likely Commencement Date, within 14 Business Days of its decision to provide the Service.
- (b) The Service Agreement may include an option ~~or options~~ to extend the initial Termination of the Agreement Date until the extended Termination Date for a period ~~or periods~~ set out in the Service Agreement. Any such option can be exercised by no later than the option exercise date specified in the Order Form. If such option is not exercised by the latest date for its exercise as specified in the Order Form, then it lapses and is cancelled. Any notification by the User to GGT ~~that the User wishes of the~~ to exercise of the option shall, subject to the satisfaction of the conditions precedent in clauses 6.5(e) and 6.5(f) be deemed to be a new application for the provision an extension of the Service Contract until the extended Termination Date for the purposes of clause 6.1. The new application must satisfy the conditions precedent contained in clause 6.5, upon the same terms and conditions as set out in the Service Contract, except for the option to extend and will be treated:
 - (1) if the User no later than 12 months prior to the expiry of the then Term of the Agreement exercises the option, then in accordance with clause 7.1(e); or
 - (2) if the User later than 12 months prior to the expiry of the then Term of the Agreement exercises the option, then in accordance with clause 7.1(f).

6.10 Variation to MDQ and Term of the Agreement

- (a) At any time after the Commencement Date, a User may by giving ~~give~~ written notice apply to GGT requesting amendments to the Service Agreement relating to:
 - (1) an increase in the MDQs to be applied after the Date of Service Agreement; or
 - (2) an extension to the Term of the Agreement(Application for Service Contract Variation).
- (b) GGT will consider any Application for Service Contract Variation ~~request made under clause 6.10(a)~~ as a new Order Form and shall advise the User whether it will accept the ~~request~~ application and what terms and conditions, including changes to tariffs and charges, if applicable, will apply. GGT will not accept any application if it does not comply with the requirements of clause 6.3 or does not satisfy the conditions precedent contained in clause 6.5. ~~The request~~ An Application for Service Contract Variation will be accorded priority in accordance with ~~under~~ clause 7.1(e) 7.1(f).

776. The Authority is satisfied that these revisions incorporate Amendment 31.

777. The revisions made to clause 6.1 include insertion of a new provision (6.1(h)) that requires a Prospective User to indicate on an Enquiry Form whether the requested Service is a Negotiated Service. The Authority does not consider that this

requirement is material, nor that it would disadvantage a Prospective User and therefore does not oppose the revision.

Extensions/Expansions Policy

778. Section 3.16 of the Code requires that an Access Arrangement include a policy (an “**Extensions/Expansions Policy**”) which states:
- (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 Relevant 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) specify 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 provide:
 - (i) 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.
779. Section 3.16 further provides that the Authority may not require the Extensions/Expansions Policy to state that the Service Provider will fund New Facilities, unless the Service Provider agrees.
780. An Extensions/Expansions Policy is provided by GGT in clause 10 of the proposed Access Arrangement. The Extensions/Expansions Policy includes:
- a statement of conditions on which GGT will endeavour to expand the pipeline (clause 10.1);
 - an indication that GGT will undertake investigations of Developable Capacity, and provides for the costs of the investigations to be met by a Prospective User, or for GGT to undertake the investigations at its own initiative and its own cost (clause 10.2);
 - provision for an extension or expansion of the pipeline to become part of the Covered Pipeline if GGT elects for it to do so, and with the consent of the Authority (clause 10.3); and
 - provisions for surcharges to be applied where a User is served by incremental capacity financed by capital contributions of another User (clause 10.4).
781. Several submissions made to the Authority sought clarification of the Authority’s role in respect of a decision to include an extension or expansion in the Covered Pipeline.

782. The Authority noted in the Amended Draft Decision that it does not itself have jurisdiction over whether a pipeline or part of a pipeline (including an extension or expansion to an existing Covered Pipeline) becomes covered under the Code. Rather, the pipeline owners may elect for a pipeline or part of a pipeline to become covered, or the relevant Minister may so determine. Section 1 of the Code contains detailed provisions for any party, including the Authority, to make an application to the relevant Minister, through the National Competition Council, to require that an extension or expansion to a pipeline form part of a Covered Pipeline.
783. While the Authority was not satisfied that it should require GGT to seek the Authority's approval of any decision that a particular extension/expansion become or not become part of the Covered Pipeline, the Authority took the view that it is reasonable for the Access Arrangement to include a provision that the Authority be notified of any decision by a Service Provider as to whether or not an extension/expansion is to become part of the Covered Pipeline. The following amendment was required in the Amended Draft Decision:
- Clause 10.3 of the proposed Access Arrangement should be amended to indicate that where GGT determines that an extension or expansion to the Pipeline will not be subject to the Access Arrangement, that GGT will provide written notice to the Authority of this determination. (Amendment 32)
784. The Authority addressed clause 10.2 of the proposed Access Arrangement, which includes provision for a Prospective User that makes an access request for Developable Capacity to be required to pay for the investigations regarding the feasibility of such extension/expansion and to make a commitment to an agreed contribution to the costs of installing Developable Capacity.
785. The Authority took the view that it is unreasonable that Prospective Users should be required to agree to make a contribution to the costs of installing Developable Capacity before investigations as to the extent of those costs have been completed. The following amendment was required in the Amended Draft Decision:
- Clause 10.2(a) of the proposed Access Arrangement should be amended to remove the requirement for any commitment by a Prospective User to make a contribution to the costs of installing Developable Capacity before the investigations as to the extent of those costs have been completed. (Amendment 33)
786. On a related matter, a submission was made to the Authority that, in the event of Incremental Capacity having been financed by Users, it was not clear whether the proposed Access Arrangement provides a mechanism to ensure that the structure of the Surcharge on additional Users of the Incremental Capacity reflected a fair and reasonable sharing of the total recoverable costs between the Incremental Users, as required under section 8.26(c) of the Code.
787. The Authority noted that sections 8.25 and 8.26 of the Code deals with the circumstances in which a Service Provider may apply Surcharges, and that section 6.23 of the Code provides some guidance to the Arbitrator in a dispute on how the costs of Capital Contributions by Prospective Users are to be shared. The Authority took the view that clause 10.4 of the proposed Access Arrangement makes provision for Capital Contributions and Surcharges in accordance with the relevant provisions of the Code, and that it is not necessary for the proposed Access Arrangement to set out how a Surcharge would actually be calculated. However, the Authority noted that

there is a requirement on the Service Provider to provide written notice to the Authority of any intent to levy a Surcharge and the Authority took the view that this latter requirement on GGT should be made explicit in the Extensions/Expansions Policy. The following amendment was required in the Amended Draft Decision:

Clause 10.4 is to be amended to state that the application of any Surcharge is subject to the Service Provider notifying the Authority in accordance with section 8.25 of the Code. (Amendment 34)

788. GGT has revised the clause 10 of the Access Arrangement as follows.

10 EXTENSIONS/EXPANSION POLICY

10.1 Extensions/Expansions

~~GGT will use all reasonable endeavours to extend or expand the Capacity of the Pipeline where the proposed extension or expansion:~~

- ~~(a) is technically feasible and economically viable;~~
- ~~(b) is consistent with the safe and reliable operation of the Pipeline;~~
- ~~(c) receives all relevant regulatory approvals; and has regard to good pipeline industry practice~~

Other than as required under the Code or the GGP Agreement, GGT will not incur capital to expand the capacity of the Pipeline unless a User:

- (a) satisfies GGT of the existence of reserves and demand for the economic life of the expansion;
- (b) demonstrates to GGT that the User has the financial capability to pay the costs of the provision of services provided through expanded capacity; and
- (c) commits to a Service Agreement sufficient to ensure the payment to GGT all costs incurred by GGT in expanding the capacity and the provision of services through that expanded capacity.

10.2 Investigations as to Developable Capacity

- (a) If:
 - (1) a request for Service (including any request for Service, the effect of which is to increase an existing User's MDQ or to request additional Capacity for an existing User) is lodged;
 - (2) Spare Capacity is not likely to become available in the reasonably foreseeable future, based on current commitments, to satisfy that request for Service; and
 - (3) that request for Service is reasonably likely to be satisfied by Developable Capacity, if provided

GGT will undertake such Investigations as are reasonably required to determine the nature, extent and approximate cost required to provide that Developable Capacity, subject to clause 6.6(b) of this Access Arrangement ~~the payment by the Prospective User of the cost of those Investigations and the Prospective User committing to make an agreed contribution to the costs of installing the Developable Capacity.~~

- (b) GGT may of its own accord undertake investigations as to possible Developable Capacity from time to time.

10.3 Application of Arrangement to Pipeline Extension/Expansion

- ~~(a) If GGT so elects and with the Regulator's consent, a pipeline extension or expansion will be subject to this Access Arrangement and will form part of the Pipeline for the purposes of this Access Arrangement.~~
- ~~(b) If the nature of the pipeline extension or expansion is such that an amendment to this Access Arrangement is required, GGT will lodge an amended Access Arrangement with the Regulator.~~
- ~~(c) A pipeline extension or expansion which GGT elects, with the Regulator's consent, to be subject to this Access Arrangement, will become subject to this Access Arrangement:~~
 - ~~(1) if an amendment to this Access Arrangement is required as a result, on the date on which approval by the Regulator of the amendment takes effect; or~~
 - ~~(2) otherwise, on the date elected by GGT and consented to by the Regulator.~~

If GGT expands the capacity of the Pipeline, GGT will elect:

- (a) that the expanded capacity will be treated as part of the Pipeline for the purposes of the Access Arrangement and GGT will exercise its discretion to submit proposed revisions to the Access Arrangement under section 2 of the Code; or
- (b) that the expanded capacity will not be treated as part of the Pipeline for the purposes of this Access Arrangement and that GGT will lodge a separate Access Arrangement for such expanded capacity; or
- (c) that the expansion will not be covered, subject to GGT notifying the Regulator of this fact prior to the expansion coming into operation.

10.4 Pipeline Extension/Expansion and Tariffs

- (a) Pipeline extension or expansions will result in no change to the Reference Service Tariff applied to a User when those extensions or expansions have been fully funded by that User's capital contributions except to contribute to GGT's non-capital costs in connection with those extensions and expansions.
- (b) 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.
- (c) Pipeline extensions or expansions funded by GGT may result in the application of surcharges as allowed for in section 8 of the Code subject to GGT providing written notice to the Regulator, and the Regulator approving the same, in accordance with section 8.25 of the Code.

- 789. Amendment 32 of the Amended Draft Decision required that clause 10.3 of the proposed Access Arrangement be amended to indicate that GGT will provide written notice to the Authority of a determination by GGT to not include an extension or expansion of the GGP as part of the Covered Pipeline.
- 790. GGT addressed the requirements of Amendment 32 in revisions to clause 10.3 of the proposed Access Arrangement. The Authority is satisfied that these revisions incorporate Amendment 32.
- 791. Amendment 33 of the Amended Draft Decision required that the proposed Access Arrangement should be amended to remove the requirement for any commitment by a Prospective User to make a contribution to the costs of installing Developable Capacity before the investigations as to the extent of those costs have been completed.

792. GGT has addressed the requirement for Amendment 33 by revisions to clause 10.2(a) of the proposed Access Arrangement to remove the requirement for a Prospective User to make an “up-front” commitment to a contribution to costs of installing capacity, and to indicate that the Prospective User would contribute to the costs of investigations in accordance with clause 6.6(b) of the Access Arrangement, which has been revised as follows:

6.6 Acceptance of an Order Form

Subject to clause 6.7, GGT must accept a [fully](#) completed and executed Order Form submitted to GGT pursuant to clause 6.3:

- (a) if there is sufficient Spare Capacity available; or
 - (b) if sufficient Spare Capacity is not available and:
 - (1) GGT has determined that it is technically feasible and economically viable to install Developable Capacity to provide the Service by the Commencement Date; and
 - (2) the Prospective User has indicated its preparedness to contribute [the amount specified by GGT towards](#) reasonable costs towards Investigations and Developable Capacity.
793. It appears to the Authority that GGT has attempted to incorporate Amendment 33 into the revised Access Arrangement. However, the Authority notes that clause 6.6(b) still implies that the Prospective User is required to indicate preparedness to contribute to the reasonable costs of Developable Capacity. The Authority therefore is not satisfied that the revised Access Arrangement incorporates Amendment 33, which would require that clause 6.6(b)(2) read:
- (2) the Prospective User has indicated its preparedness to contribute the amount specified by GGT towards reasonable costs towards Investigations of Developable Capacity.
794. Notwithstanding that GGT has not satisfactorily addressed the requirements of Amendment 33 of the Amended Draft Decision, the Authority does not persist with the requirement for this amendment in this Final Decision. Rather, the Authority requires that clause 6 of the revised Access Arrangement be removed from the Access Arrangement for reason that the matters addressed in clause 6 are properly dealt with in the Information Package that GGT is required to produce for the GGP, rather than the Access Arrangement. This matter is dealt with in more detail below (paragraphs 826 to 829).
795. Amendment 34 required that provision be made for any application of any Surcharge to be subject to the Service Provider notifying the Authority in accordance with section 8.25 of the Code.
796. GGT addressed the requirements of Amendment 34 by revision of clause 10.4(c) of the proposed Access Arrangement. The Authority is satisfied that the revisions incorporate Amendment 34.
797. In addition to revisions relating to required Amendments, GGT has revised clause 10.1 of the proposed Access Arrangement to include a description of circumstances in which GGT will incur capital expenditure to extend or expand the pipeline. The Authority notes that the revised clause originally indicated that GGT would only

undertake and finance an extension or expansion in circumstances where it would be technically feasible and economically viable. The Authority does not consider that the revised clauses materially alter the rights and obligations of Users and hence does not oppose the revision.

798. GGT has also revised clause 10.4(a) to indicate that, following an extension or expansion financed by capital contributions from the User, the Reference Tariff may be increased sufficiently to cover the additional Non Capital Costs incurred by GGT in connection with the extension or expansion. The Authority notes that such a change to the Reference Tariff is not a change that could occur within the Access Arrangement Period, but could only occur on review of the Access Arrangement at which time new forecasts of Non Capital Costs would be used to derive the Reference Tariff. Given this, the Authority does not consider that the revision to clause 10.4(a) materially alters the rights and obligations of Users and does not oppose the revision. However, the Authority considers that section 10.4 of the revised Access Arrangement should be revised to make it clear that, in the circumstances contemplated by sub-clause 10.4(a), the Reference Tariff may only be changed by revisions to the Access Arrangement under the process set out in section 2 of the Code.

Final Decision Amendment 24

Clause 10.4 of the revised Access Arrangement should be amended to make it clear that, in the circumstances contemplated by sub-clause 10.4(a), a change in the Reference Tariff may only occur by revisions to the Access Arrangement under the process set out in section 2 of the Code.

Review and Expiry of the Access Arrangement

799. Section 3.17 of the Code sets out the requirements for an Access Arrangement to specify dates for review of the Access Arrangement:

3.17 An Access Arrangement must 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**).

...

800. In approving the Revisions Submissions Date and Revisions Commencement Date, the Authority must have regard to the objectives for Reference Tariffs and the Reference Tariff Policy in section 8.1 of the Code. In making a decision on an Access Arrangement (or revisions to an Access Arrangement) and, if considered necessary having had regard to the objectives in section 8.1 of the Code, the Authority may, under section 3.17 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;
- (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.

801. 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 Authority 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 to be 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.
802. Where a mechanism is included in an Access Arrangement pursuant to section 3.18(a) of the Code, the Authority must investigate no less frequently than once every five years whether a review event identified in the mechanism has occurred.
803. Clause 3.1 of the proposed Access Arrangement states that the Access Arrangement will come into effect on the "Effective Date" (the date on which the Access Arrangement comes into effect, as specified by the Authority) and will continue for at least 5 years. The Revisions Submission Date is not specified in the proposed Access Arrangement but, pursuant to clause 3.2 of the proposed Access Arrangement, is to be 4½ years after the Effective Date. The Revisions Commencement Date (or start of a revised Access Arrangement) is also not specified, but clause 3.2 of the proposed Access Arrangement states that such date is the later of 5 years after the Effective Date or when the Authority approves the revised Access Arrangement.
804. Clause 3.3 of the proposed Access Arrangement makes provision for GGT to submit propped revisions at any time, and indicates a number of circumstances in which this may occur.
805. The Authority noted in the Amended Draft Decision that as the Revision Commencement Date is specified by reference to the date at which the Access Arrangement becomes effective, the Access Arrangement Period would extend well beyond the period of 5 years after submission of the proposed Access Arrangement, and according to a reasonable timetable for approval of the proposed Access Arrangement would extend to some time in 2009. This was noted to be beyond the period of forecasts of costs and demand for services on which interested parties had had an opportunity to make submissions.
806. The Authority recognised in the Amended Draft Decision that it was cognisant of the extended time taken for assessment of the proposed Access Arrangement and indicated that there would be considerable merit in having an Access Arrangement Period extend for five years from the date of approval of the proposed Access Arrangement to, for example, the end of 2009. However, the Authority was also mindful of the need for procedural fairness in assessment and approval of the proposed Access Arrangement, in particular providing an opportunity for interested

parties to scrutinise the forecast information upon which the determination of the Reference Tariff is based. Therefore, the Authority took the view that the proposed Access Arrangement should make provision for a Revisions Commencement Date of 1 January 2006 while indicating that, subject to consideration of any submissions made on the forecasts for the period to December 2009, the Authority may be amenable to allowing a Revisions Commencement Date of 1 January 2010 if proposed by GGT. Accordingly, in the Amended Draft Decision, the Authority indicated cost forecasts, demand forecasts and the Reference Tariff for the period to 2009.

807. The Authority also noted that it is of the view that ideally there should be a nine month period between the Revision Submission Date and the Revision Commencement Date to allow for assessment and approval of proposed revisions.

808. The following amendment of the proposed Access Arrangement was required in the Amended Draft Decision.

Clause 3.2 of the proposed Access Arrangement is to be amended to provide for a Revisions Submission Date of 1 April 2005 and a Revisions Commencement Date of 1 January 2006. (Amendment 35)

809. GGT has revised clause 3 of the proposed Access Arrangement as follows.

3 TERM AND REVIEW

3.1 Term

This Access Arrangement Period comes into effect on [the later of 1 January 2005 and](#) the Effective Date. The Access Arrangement Period or term of the Access Arrangement will expire on the later of:

- (a) five years after the Effective Date; or
- (b) the Revisions Commencement Date.

3.2 Review of Access Arrangement

In accordance with of clause 3.17 of the Code:

- (a) the Revisions Submission Date is four and one half years after the Effective Date; and
- (b) 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.

~~3.3 Other Reviews~~

~~GGT may conduct a review of this Access Arrangement at any time, including if any of the following events occur:~~

- ~~(a) a Pipeline Extension which is subject to this Access Arrangement is undertaken;~~
- ~~(b) 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 this Access Arrangement;~~
- ~~(c) there is a change in the provisions or administration of any Act or other law, including the Code or the Trade Practices Act 1974 (Cwth), which necessitates a review of this Access Arrangement;~~
- ~~(d) any other event occurs which requires this Access Arrangement to be updated or amended under any other provision of this Access Arrangement; or~~

~~(e) — GGT believes it has reason to make a change to this Access Arrangement.~~

~~This Access Arrangement has been prepared on the state of knowledge at the Effective Date of the proposed commencement of a goods and services tax (GST). GGT may conduct a review of this Access Arrangement if the application or effect of the goods and services tax, in practice, is different from the application described in clause 9.11 of the General Terms and Conditions.~~

~~3.4 — Lodge Amended Access Arrangement~~

~~GGT will lodge an amended Access Arrangement if that is required as a result of conducting the reviews referred to in this clause.~~

810. GGT has not revised the proposed Access Arrangement to provide for a Revisions Submission date of 1 April 2005 and a Revisions Commencement Date of 1 January 2006 as required by Amendment 35. However, the Authority indicated in the Amended Draft Decision that a later Revisions Commencement Date and Revisions Submission Date may be approved if proposed by GGT and the relevant forecasts of costs and demand for services were made available to interested parties.
811. The Authority accepts that the provision of the Access Arrangement to allow for a Revisions Commencement Date after 1 January 2006 is consistent with the reasons expressed in the Amended Draft Decision for Amendment 35. However the Authority notes that GGT has not provided to the Authority forecasts of costs and demand for services that would enable the Authority to calculate a Reference Tariff for a period beyond 31 December 2009. As such, the Authority does not consider it possible to approve a Revisions Commencement Date beyond 1 January 2010, which would occur if the revised Access Arrangement was approved.
812. The Authority notes that two parties have made submissions subsequent to the Amended Draft Decision contending that the Access Arrangement Period should extend only to 2007. The Authority is of the view, however, that these submissions do not provide compelling reasons for the Authority to limit the Access Arrangement Period to substantially less than an effective period of five years, consistent with many other Access Arrangements for Covered Pipelines under the Code.
813. GGT has not revised the proposed Access Arrangement to provide for a Revisions Submission Date of nine months before the Revisions Commencement Date.
814. GGT has submitted that the 9 month period between the Revisions Submission Date of 1 April 2005 and the Revisions Commencement Date of 1 January 2006 is at variance from section 2.43 of the Code. However, the Revisions Commencement Date is determined pursuant to section 3.17 of the Code. That is, the Access Arrangement must specify a date on which revisions to the Access Arrangement are intended to commence. Section 3.17 clearly states that the Authority must approve the date and may require an earlier or a later date to that proposed.

815. The Authority is therefore not satisfied that GGT has incorporated Amendment 35 into the revised Access Arrangement or otherwise addressed the reasons for Amendment 35.

Final Decision Amendment 25

Clauses 3.1 and 3.2 of the revised Access Arrangement should be amended to provide for a Revisions Submission Date of 1 April 2009 and a Revisions Commencement Date of 1 January 2010.

Matters Unrelated to Sections 3.1 to 3.20 of the Code

816. 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. However, it is open to a Service Provider to address, in an Access Arrangement, matters beyond the requirements set out in those sections of the Code.
817. Pursuant to section 2.24 of the Code, the Authority must not refuse to approve a proposed Access Arrangement solely for the reason that it does not address a matter that sections 3.1 to 3.20 of the Code do not require to be addressed. However, if a proposed Access Arrangement addresses matters in addition to the requirements in sections 3.1 to 3.20 of the Code, then the Authority may consider these matters in its assessment of the proposed Access Arrangement, taking into account the factors listed in section 2.24 of the Code.
818. The proposed Access Arrangement addresses several matters outside the scope of sections 3.1 to 3.20 of the Code. The Authority considered these matters in the Amended Draft Decision, in particular:
- the procedure for lodgement of an access request;
 - ring fencing requirements; and
 - inclusion of key performance indicators in the Access Arrangement Information.
819. An amendment was required of provisions relating to the procedure for lodgement of an access request for the reasons set out as follows.
820. Clause 6 of the proposed Access Arrangement sets out the procedure for an application for a Service, paraphrased as follows.
- The Prospective User completes an Enquiry Form outlining the amount of gas required, number of Outlet Points and other information related to the User.
 - Within 15 business days of receiving the Enquiry Form, GGT provides the Prospective User with an assessment of the availability of capacity to satisfy the request for Service, including a statement of Spare Capacity and Developable Capacity and the various tariffs and charges that will apply.
 - If the Prospective User wishes to proceed, the Prospective User is required to complete and return an Order Form within 10 business days, containing a repeat of

the information required in the Enquiry Form, any requirements which have changed and the tariff and charge components advised by GGT that will apply.

- Within 30 business days of receiving the Order Form GGT is required to advise the Prospective User whether Spare Capacity exists or provide details relating to Developable Capacity or investigations if these are required.
 - Subject to conditions detailed in clauses 6.5 to 6.7 of the Access Arrangement, GGT must accept the completed Order Form. These clauses include conditions precedent that sufficient Spare Capacity is available or if not, it is technically and economically feasible to develop Spare Capacity and that the Prospective User has indicated its preparedness to devote reasonable costs towards investigations and Developable Capacity.
 - If, in the reasonable opinion of GGT, the Order Form does not comply then GGT must give the Prospective User, within 14 days, a notice of non-compliance including reasonable details and information regarding the non-compliance.
 - If GGT issues a notice of non-compliance, the Prospective User may within 30 days issue a notice that it will amend its Order Form, or else it will lose its priority for capacity.
 - If the Order Form complies, GGT can make a decision relating to the provision of the Service. Within 14 days of making the decision, GGT must deliver to the User a Service Agreement, together with the likely Commencement Date for the Service.
821. Users may request an increase in MDQ or a term extension to the Service Agreement at any time after the Commencement Date by writing to GGT. Any such request is treated as a “New Order Form” by GGT.
822. The User may also seek variations to the General Terms and Conditions applicable to the Reference Service, but such variations would constitute a Negotiated Service, with the terms of the agreement to be negotiated in good faith.
823. The Authority considered the appropriateness of the broad requirement of clause 6.12 of the proposed Access Arrangement for a Prospective User to keep confidential any information disclosed to it by GGT through the course of an application for a Service.
824. The Authority noted that while clause 6.12 appears to prevent a Prospective User from disclosing information in furtherance of the pursuit of enforcing or complying with its legal rights, for example by way of arbitration or court proceedings, such an interpretation of this clause would cause the clause to be void for public policy reasons that it could obstruct the administration of justice. However, for the purpose of clarity, the Authority considered that clause 6.12 should be amended to clarify the circumstances in which GGT may require a Prospective User to keep information confidential. The following amendment was required in the Amended Draft Decision.
- Clause 6.12 of the proposed Access Arrangement is to be amended to indicate that GGT cannot require a Prospective User to keep confidential information disclosed by GGT to the Prospective User in the course of an application for a Service in a manner that may obstruct the administration of justice (including any proceedings under section 6 of the Code). (Amendment 36)

825. GGT has revised clause 6.12 of the proposed Access Arrangement as follows:

6.12 Confidential Information

(a) GGT may require the Prospective User to undertake to keep confidential any information disclosed in the course of negotiations relating to the application in such form as GGT requires and as a condition precedent to negotiations.

(b) Notwithstanding Clause 6.12(a), where a Prospective User is requested or required by law, any legally binding order of a court or Governmental Authority, or by the listing rules of any stock exchange having jurisdiction over the Prospective User or its ultimate holding company to disclose confidential information which arose in relation to negotiations between the parties, the Prospective User shall advise GGT of the relevant request or requirement and in good faith confer with GGT, as to the most appropriate manner, recognising the commercial sensitivity of the details or information requested or required, of responding to the request or requirement.

826. While the Authority is satisfied that this revision incorporates Amendment 36 of the Amended Draft Decision, the Authority has given further consideration to the matter of whether the Access Arrangement for the GGP may properly address matters relating to the process by which applications for Services are made and assessed. The further consideration given to this matter results from a submission made to the Authority in respect of proposed revisions to the Access Arrangement for the DBNGP.⁸⁷

827. The Code contemplates that the processes of making and assessing applications for Services will be described not as an element of an Access Arrangement, but rather as part of the Information Package required to be made available by a Service Provider under section 5 of the Code. While the Relevant Regulator under the Code has powers to require changes to an Information Package made available by a Service Provider, this is a function of the Relevant Regulator that is separate from the function of assessment and approval of a proposed Access Arrangement or proposed revisions to an Access Arrangement.

828. Although the Authority has previously allowed Access Arrangements for pipelines in Western Australia to include provision relating to the processes of submitting and assessing applications for services and charges associated with these processes, the Authority has reconsidered the appropriateness of such matters being dealt with in an Access Arrangement. On re-examining the relevant provisions of the Code, the Authority is concerned that there is a real issue as to whether it is appropriate for the Access Arrangement to address issues that the Code expressly contemplates will be dealt with in the Information Package.

⁸⁷ Economic Regulation Authority, 11 May 2005, Draft Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, paragraph 490 to 493.

829. The Authority therefore considers that clause 6 of the revised Access Arrangement should be deleted, although the Authority would envisage that the provisions of clause 6 would be included in the Information Package made available by GGT and in respect of the GGP.

Final Decision Amendment 26

The revised Access Arrangement should be amended to remove clause 6 relating to applications for Services.

Other Revisions to the Proposed Access Arrangement

830. GGT has made a number of revisions to the proposed Access Arrangement that are not in response to amendments required under the Amended Draft Decision.
831. In addition to revisions indicated and discussed above, GGT has made revisions to the introduction of the proposed Access Arrangement as follows.

INTRODUCTION

The Goldfields Gas Pipeline was constructed by the Goldfields Gas Transmission Joint Venture pursuant to the 23rd March 1994 Goldfields Gas Pipeline Agreement entered into with the State of Western Australia (GGP Agreement). This was ratified by the Goldfields Gas Pipeline Agreement Act 1994 (WA) (GPAA).

Completed in 1996, the Goldfields Gas Pipeline is the sole conduit for delivery of natural gas from the vast offshore gas fields in the north west of Western Australia to the mineral rich, inland regions of the State. Gas is delivered to outlets along the length of the pipeline, primarily for use in electricity generation facilities associated with mining and minerals processing.

Its construction was underpinned by certain initial commitments to capacity reserved by each Joint Venturer for the requirements of each Joint Venturer and its "associates" (as defined in the GGP Agreement) and any commitments to purchase capacity procured from Third Parties (as defined in the GGP Agreement and which includes any Joint Venturer acting independently of the other Joint Venturers and outside of the joint venture). These commitments are referred to in the GGP Agreement as "Initial Committed Capacity".

In all cases, the transportation service required by users of the Goldfields Gas Pipeline is for transportation of gas on a firm basis from the pipeline's inlet. There are no other gas sources located along the route of the pipeline. It is anticipated that this will continue to be the service required by all or most of the users of the pipeline. Accordingly, the only Reference Service offered under this Access Arrangement by Goldfields Gas Transmission Pty Ltd (Manager of and as Service Provider for the Goldfields Gas Pipeline) (GGT) is a Firm Service.

~~In accordance with the GPAA -~~ This Access Arrangement sets out terms and conditions for the Reference Service. Section 2.25 of the Code prohibits the approval of an Access Arrangement if any provision of it would deprive a person of such pre-existing contractual rights (other than an exclusivity right, as defined in the Code, which arose on or after 30 March 1995).

Accordingly certain provisions of this Access Arrangement are made subject to those pre-existing contractual rights.

~~Should a User or Prospective User of the Goldfields Gas Pipeline have unique or special needs which cannot be accommodated through a Reference Service, GGT is most willing to will discuss the provision of Negotiated Services. Negotiated Services would be specially developed to suit such special or unique needs.~~

Prospective pipeline users are encouraged to discuss their gas transportation needs with GGT so that, if necessary, new or varied services may be developed to meet users' requirements [where these cannot be satisfied through a Reference Service](#).

832. Clause 1 of the proposed Access Arrangement is also in the nature of an introduction and has been revised as follows.

1 ACCESS ARRANGEMENT

1.1 Access Arrangement

This ~~document is an [proposed]~~ Access Arrangement is lodged by Goldfields Gas Transmission Pty Ltd, ACN 004 273 241 (GGT) ~~with, [and approved by] the Regulator under the Code.~~

1.2 Reference Service

This Access Arrangement sets out the policies, terms and conditions applying to provision of a Reference Service in the Goldfields Gas Pipeline ~~the current route of which is shown on the maps contained in Attachment No. 1.~~

1.3 Ownership and Management of Pipeline

The Pipeline is owned by an unincorporated joint venture comprising:

- Southern Cross Pipelines Australia Pty Limited, ACN 084 521 997 whose Individual Share is 62.664%;
- Southern Cross Pipelines (NPL) Australia Pty Ltd, ACN 085 991 948 whose Individual Share is 25.493%; and
- ~~Duke Energy WA Power~~ [Alinta DEWAP Pty Ltd](#) ~~Pty Ltd~~, ACN 058 070 689 [\(formerly known as Duke Energy WA Power Pty Ltd\)](#) whose Individual Share is 11.843%

(collectively the Owners).

1.4 Service Provider

The Pipeline is operated by GGT for and on behalf of each of the Owners and GGT is the Service Provider under the Code.

833. The Authority considers that the revisions made to the introduction and clause 1 of the proposed Access Arrangement do not materially affect the rights and obligations of Users and therefore the Authority does not oppose the revisions.

CONSOLIDATED LIST OF REQUIRED AMENDMENTS

834. Under section 2.16(b)(ii) of the Code the Authority is required, when issuing a Final Decision that proposes to not approve a revised Access Arrangement submitted by a Service Provider subsequent to a Draft Decision, to state amendments that would have to be made to the revised Access Arrangement in order for the Authority to approve it. Set out below are the amendments that should be made to GGT's proposed Access Arrangement in order for the Authority to approve it.

Services Policy

835. The Services Policy of the revised Access Arrangement should be amended to make explicit provision for a Non Reference Service for gas transmission with gas received into the GGP at Inlet Points other than at Yarraloola. (Final Decision Amendment 1)

Reference Tariff and Reference Tariff Policy

836. The revised Access Arrangement should be amended to remove clauses 5.2(b), (c), (e), (i) and (j) from the Reference Tariff Policy. (Final Decision Amendment 2)
837. The Reference Tariff should be revised to be as follows (Final Decision Amendment 3):

Toll Charge (\$/GJ MDQ)	Capacity Charge (\$/GJ MDQ/km)	Throughput Charge (\$/GJ throughput/km)
\$ nominal at 1 January 2000		
0.200143	0.001143	0.000298
\$ nominal at 1 January 2005		
0.229573	0.001311	0.000342

and reflecting the following:

Initial Capital Base	\$500 million at 31 December 1999, including a value of linepack and working capital of \$2.58 million.									
Working Capital	45 days of average daily value of New Facilities Investment and Non Capital Costs in each quarterly period									
New Facilities Investment	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	3.64	8.39	1.12	10.14	6.14	1.58	5.26	5.43	1.61	1.72
Nominal pre-tax Rate of Return	10.2%									
Depreciation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	10.01	10.22	10.43	10.60	10.91	11.12	11.29	11.55	11.78	11.35
Non Capital Costs	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	11.10	12.24	14.04	16.37	14.35	14.87	15.82	16.22	16.76	17.07

838. Clause 9.8 of the General Terms and Conditions should be amended to indicate that the component charges of the Reference Tariff in the Quarter beginning 1 April 2000 and in each subsequent Quarter are to be determined as follows. (Final Decision Amendment 4)

$$C_t = C_{t-1} \times \left[\frac{CPI_{t-2}}{CPI_{t-3}} - X \right]$$

where

C_t is the relevant charge in the Quarter t in which the Billing Period occurs;

C_{t-1} is the relevant charge in the immediately preceding Quarter;

CPI_{t-2} is the CPI for the Quarter ended three months prior to the commencement of Quarter t ;

CPI_{t-3} is the CPI for the Quarter ended six months prior to the commencement of Quarter t ; and

X is 0.0275 when t is the Quarter beginning 1 January 2001 and is zero otherwise.

Terms and Conditions

839. Clause 8.1 of the revised Access Arrangement should be amended to indicate that the terms and conditions on which the Reference Service is to be provided by GGT to a Prospective User are those contained in the General Terms and Conditions. Clause 8.3 of the revised Access Arrangement should be amended to be expressed in certain terms and indicate that GGT may, prior to entering into a Service Agreement with a Prospective User, require that Prospective User to satisfy reasonable requirements of GGT in respect of:
- (1) the occurrence of a defined event including installation and commissioning of Developable Capacity or third-party equipment, processing facilities or infrastructure;
 - (2) a Performance Security being provided by the Prospective User, any of its Related Corporations or any other person on terms acceptable to GGT in order to satisfy the requirements of the request for Service; and
 - (3) copies of insurance policies or other evidence reasonably required by GGT being provided, which provide reasonable indication to GGT that the Prospective User has insurance policies sufficient to satisfy the indemnities which the Prospective User will be required to provide under the proposed Service Agreement. (Final Decision Amendment 5)
840. Clause 3.2 (d) of the General Terms and Conditions should be amended to the effect that if the parties to the Service Agreement are unable to agree in accordance with either clause 3.2(a), (b) or (c), then either party may refer the matter for dispute resolution as provided for in clause 22 of the General Terms and Conditions, and in the event that neither party has referred the matter for dispute resolution within 30 days after the date of expiry of the period of 12 Months, the Service Agreement may be terminated by written notice by either party without penalty or cost to either party. (Final Decision Amendment 6)
841. Clause 5.3 of the General Terms and Conditions should be amended to restore clauses 5.3(a) to (c) of the General Terms and Conditions of the originally proposed Access Arrangement (and relating to Notification of Imbalances). (Final Decision Amendment 7)
842. Clauses 6.4 and 6.6 and the Second Schedule of the General Terms and Conditions should be amended to restore provisions of the General Terms and Conditions under

- the originally proposed Access Arrangement to allow third parties to own, operate and maintain Outlet Facilities, and to explicitly allow Users, as well as third parties, to own, operate and maintain their own Outlet Points. (Final Decision Amendment 8)
843. The Second Schedule of the General Terms and Conditions should be amended restore the requirement for Users to supply spare parts for Outlet Facilities and to alter this requirement so that it applies only where the Outlet Facilities are owned by Users but operated by GGT. (Final Decision Amendment 9)
844. The revised Access Arrangement and General Terms and Conditions should be amended to provide that the Accumulated Imbalance Charge, Daily Overrun Charge, Hourly Overrun Charge and Variation Charge may be imposed only where:
- (a) the conduct contemplated by those charges causes actual pecuniary loss or damage; or
 - (b) in the reasonable opinion of the pipeline operator the conduct contemplated by those charges exposes the pipeline to a significant risk (whether or not that risk becomes manifest) that threatens the integrity of the pipeline. (Final Decision Amendment 10)
845. The revised Access Arrangement should be amended so that 95 percent of revenue generated from the application of Quantity Variation Charges is rebatable as if these charges are in relation to rebatable Services within the meaning of the Code. (Final Decision Amendment 11)
846. Clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended to remove provision for GGT to change the rates of Quantity Variation Charges. (Final Decision Amendment 12)
847. Clause 7.2(d) of the General Terms and Conditions should be amended to read “If at the end of any Gas Day the absolute value of the Accumulated Imbalance is greater than the Accumulated Imbalance Tolerance, GGT may at its discretion, require the User to pay to GGT an Accumulated Imbalance Charge on the difference between the absolute value of the Accumulated Imbalance and the Accumulated Imbalance Tolerance. (Final Decision Amendment 13)
848. Clauses 7.3 and 7.4 of the General Terms and Conditions and clause 5 of the Sixth Schedule to the General Terms and Conditions should be amended so that the Daily Overrun Charge and Hourly Overrun Charge applies only in respect of overrun at Outlet Points. (Final Decision Amendment 14)
849. Clause 7.3(d) of the General Terms and Conditions of the revised Access Arrangement should be deleted. (Final Decision Amendment 15)
850. Clause 8.2 of the General Terms and Conditions of the revised Access Arrangement should be amended such that GGT’s rights to interrupt or reduce a Service without penalty are subject to the whole of clause 8.3. (Final Decision Amendment 16)
851. Clause 8.3(b) of the General Terms and Conditions of the revised Access Arrangement should be amended to specify that GGT will give the User at least 30 days notice when activities listed in clause 8.2 are planned in advance of the

activity being undertaken and are likely to interrupt or reduce the transportation service for the User, and to specify that GGT will use reasonable endeavours to provide 30 days notice where the activities are undertaken for unplanned or emergency reasons. (Final Decision Amendment 17)

852. Clause 9.5 of the General Terms and Conditions of the revised Access Arrangement should be amended such that the value of a Connection Charge is limited to the value of costs reasonably incurred by GGT in establishing each new Outlet Point. (Final Decision Amendment 18)
853. Clause 9.12 of the General Terms and Conditions included in the revised Access Arrangement should either be deleted or made subject to clauses 9.3 and 9.6 of the General Terms and Conditions. (Final Decision Amendment 19)
854. Clause 9.13 of the General Terms and Conditions of the revised Access Arrangement should be amended to specify that GGT will act reasonably in determining the value of a bond, deposit or other surety. Clause 9.13 should also be amended to provide for the value of a bond, deposit or other surety to be decreased where there is a decrease in the User's MDQ, on a basis similar to that for determining increases in the value where there is an increase in the User's MDQ. (Final Decision Amendment 20)
855. Clause 16.1 of the General Terms and Conditions of the revised Access Arrangement should be amended so that the circumstances in which GGT may terminate a Service Agreement are limited to default in the performance of *material* obligations imposed upon the User by the Service Agreement. (Final Decision Amendment 21)
856. Clause 18.3 of the General Terms and Conditions of the revised Access Arrangement should be amended so that the clause does not require a User to indemnify:
 - (a) the Owners;
 - (b) GGT;
 - (c) any related entity to the Owners or GGT; or
 - (d) the employees, agents or servants of the parties listed in (a), (b) and (c) above,from and against liabilities that are unrelated to any fault or action on the part of the User. (Final Decision Amendment 22)

Trading Policy

857. Clause 9 of the revised Access Arrangement should be amended so that provisions for the trading of capacity, as currently set out in clause 20 of the General Terms and Conditions, apply generally to all Services provided by the GGP. (Final Decision Amendment 23)

Extensions/Expansions Policy

858. Clause 10.4 of the revised Access Arrangement should be amended to make it clear that, in the circumstances contemplated by sub-clause 10.4(a), a change in the

Reference Tariff may only occur by revisions to the Access Arrangement under the process set out in section 2 of the Code. (Final Decision Amendment 24)

Review and Expiry of the Access Arrangement

859. Clauses 3.1 and 3.2 of the revised Access Arrangement should be amended to provide for a Revisions Submission Date of 1 April 2009 and a Revisions Commencement Date of 1 January 2010. (Final Decision Amendment 25)

Matters Unrelated to Sections 3.1 to 3.20 of the Code

860. The revised Access Arrangement should be amended to remove clause 6 relating to applications for Services. (Final Decision Amendment 26)

Appendix 1

Estimation of the Cost of Capital for the GGP using the Capital Asset Pricing Model

1. The general approach taken by GGT in its proposed Access Arrangement of December 1999 in application of the CAPM to estimate a weighted average cost of capital (“WACC”) is consistent with the approach most commonly used by Service Providers and regulators in Australia and under the Code. This general approach to estimation has been to derive a target post-tax WACC, and then make adjustments for the net cost of taxation to derive a pre-tax WACC.

2. The CAPM is used to estimate the required nominal post-tax return to the equity share of an asset, with the most common formulation of the CAPM for this purpose being:

$$R_e = R_f + \beta_e (R_m - R_f)$$

where R_f is the risk-free rate, $(R_m - R_f)$ is the expected risk premium above the risk-free rate for a well-diversified portfolio of equities (R_m), β_e is the measure of the particular equity’s relative risk, or its equity beta, and R_e is the required return on that equity.

3. The outcome of this model is an estimate of the required post-tax return to equity. The return required by the other source of financing – debt – can be observed directly from the market for debt finance, 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.

4. There are a number of different versions of the post-tax WACC that are derived by transferring one or more of the particular costs or benefits from the cash flows to inclusion in the WACC formula. One popular form is the “Officer” nominal post-tax WACC, which takes account of corporate income tax and the value of franking credits and has the following formula:

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

where t_c is the corporate tax rate and γ is the value of franking credits created (as a proportion of their face value).

5. Consistent with a view of the Authority that franking credits should be ascribed some value in application of the CAPM (see further discussion of this matter below), the Authority has used the Officer WACC formula to estimate the WACC for the GGP.

The various elements and parameters of the CAPM model, the position taken on each by GGT and the views of the Authority on each element are described below.

Risk Free Rate and Inflation Rate

6. Regulatory decisions under the Code in Western Australia and elsewhere in Australia have typically estimated the nominal risk-free rate by calculating the average yield to maturity on 10 year Commonwealth Government Treasury bonds over 20 consecutive trading days. Similarly, the real risk-free rate has been estimated by calculating the average yield to maturity on 10 year Commonwealth Government Indexed Treasury Bonds over the same 20 consecutive trading days. A forecast of inflation over the period has been calculated from the two rates, using the Fischer equation.⁸⁸
7. This approach to the estimation of risk free rates and the inflation rate is not considered by the Authority to be contentious and was applied by the Authority for the purposes of the Amended Draft Decision. While there has been an appeal by a Service Provider against a regulatory decision made under the Code by the ACCC and in relation to the determination of risk free rates and the inflation rate, this appeal related to whether observations of yields on 10-year or 5-year bonds should be used for the determination rather than the general methodology.⁸⁹ While GGT has previously applied different methodologies in deriving a value for the risk free rate and inflation rate for the proposed Access Arrangement for the GGP,⁹⁰ GGT has not taken issue with the reasons of the Authority expressed in the Amended Draft Decision for determining the methodologies used by GGT to be inappropriate, nor with the methodology applied by the Authority in its Amended Draft Decision.
8. Consistent with the methodology applied for the purposes of the Amended Draft Decision, the Authority has derived an estimate of the risk-free rate from averages of bond rates over 20 consecutive trading days to 29 April 2005. The averages of observed rates of return on 10 year government bonds indicate a nominal risk-free rate of 5.45 percent, a real risk-free rate of 2.69 percent and an implied future inflation rate of 2.69 percent.

Market Risk Premium

9. In its Amended Draft Decision, the Authority determined that an appropriate assumption for the market risk premium is 6.0 percent, consistent with the position taken in the earlier, April 2001 Draft Decision.

⁸⁸ Brealey, R.A., Myers, S.C., Partington, G. and Robinson, D., 2001. *Principles of Corporate Finance* 1st Australian edition, Roseville, Australia: McGraw-Hill, p 135.

⁸⁹ Australian Competition Tribunal, Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6.

⁹⁰ GGT's December 1999 proposal for determination of the risk-free rate comprised a single-day value of the Commonwealth Government Treasury bond rate. The Authority considered that a single day value is subject to effects of day-to-day volatility in the bond market, and for this reason an average of the bond rate over a number of consecutive trading days is preferred as an estimate of the risk-free rate (Amended Draft Decision, paragraph 268). GGT's submission of 17 December 2002 in respect of the risk-free rate (using an historical average risk-free rate observed from trading of government bonds) represents a fundamental misunderstanding of the use of observed returns on government bonds as an estimate of the risk-free rate. The Authority considered that this approach was inconsistent with a forward-looking estimate of risk-free rates for the Access Arrangement Period (Amended Draft Decision, paragraphs 269, 270).

10. GGT has argued for a higher value to be adopted for the market risk premium. In its proposed Access Arrangement of 15 December 1999, GGT proposed a market risk premium of 6.5 percent. In a submission on the April 2001 Draft Decision, GGT disputed the Regulator's assumption of a market risk premium of 6 percent, citing references to support a higher value of closer to 8 percent. GGT also submitted that the appropriate value for the market risk premium depends upon the value attributed to franking credits.⁹¹

GGT believes that the MRP's currently being observed in the marketplace reflect the capitalisation of the value of franking credits and not a reduction in the cost of equity capital. As a result, the Regulator's current methodology for calculating pre-tax WACC which uses a (*sic*) both a low value for the MRP, 6%, and a high value for franking credit utilization, 50%, is double counting the benefits of dividend imputation.

GGT believes the values for MRP and the franking utilisation factor are inter-related. If the Regulator chooses to adjust the pre-tax return downward to reflect the impact of imputation tax credits, then he should select a high value for the MRP, i.e. 7% to 8%. If the Regulator chooses a low value for the MRP, i.e. 6% to 7%, then he should choose a low value for franking credit utilization, i.e. zero.

The MRP is an important variable in determining the applicable rate of return. It is demonstrably volatile. Therefore, discretion must be exercised when assigning it a value. GGT respectfully requests that the Regulator properly recognises the legitimate business interests of the Service Provider, and also particularly recognises the conditions in the market for funds as required by the Code.

11. Subsequent to the Amended Draft Decision, GGT has submitted a revised value of the Rate of Return derived by a calculation that included a value of the market risk premium of 7.6 percent. GGT has also submitted to the Authority a copy of advice provided to it by KPMG that presents additional historical estimates of the Australian market risk premium, and indicates an interaction between franking credits and the market risk premium.⁹² This advice concludes that, on the basis of historical evidence of market risk premiums in Australia, an upper limit for the range of values for the market risk premium is 8.0 percent.
12. The Authority notes that GGT's contention of the market risk premium being greater than a value of 6 percent and within a range of up to 8 percent is based on evidence of historically realised market risk premiums. The Authority does not accept that sole reliance on such evidence is appropriate in determining an appropriate assumption for the market risk premium, which should be directed at an assumption of the *expected* market risk premium at the current time. The Authority considers that estimates of realised market risk premiums should be considered in the context of numerous factors that suggest a decline in the market risk premium over the last century⁹³ and analysis that suggests that, internationally, historically realised market risk premiums are likely to be in excess of those currently required or expected by investors.⁹⁴ Moreover, the Authority considers that attention should be given to values assumed

⁹¹ GGT Submission, 13 July 2001, p32.

⁹² KPMG, November 2004, Goldfields Gas Transmission Pty Ltd, Weighted Average Cost of Capital.

⁹³ These factors are discussed in "The Allen Consulting Group (March 2004), *Review of Studies Comparing International Regulatory Determinations*, Report to the Australian Competition and Consumer Commission".

⁹⁴ Dimson, Elroy, Marsh, Paul and Mike Staunton (2000), "Risk and Return in the 20th and 21st Centuries," *Business Strategy Review*, Vol. 11, Issue 2.

for the market risk premium by investors and financial analysts at the current time, and to *ex ante* estimates of the market risk premium.

13. Values assumed for the market risk premium at the current time are revealed in a survey of financial market participants cited by the Authority in the Amended Draft Decision and indicate that an average of survey respondents' views on the historical market risk premium was 5.87 percent and an average of future expectations of the market risk premium of about 1 percent less.⁹⁵
14. *Ex ante* estimates of the market risk premium have been made for Australian equity markets using the dividend-growth-model methodology. Estimates made are also below estimates of historically realised market risk premiums, with values ranging between 4.5 percent and 5.9 percent, with an average of 5.4 percent.⁹⁶
15. Taking into account all of the above estimates, the Authority considers that the value for the market risk premium could reasonably be assumed to be within the range of 5 to 6 percent.

Equity Beta

16. The application of the CAPM requires an equity beta, β_e , to be determined for the GGP business. The equity beta value for a business reflects that business's exposure to systematic risk, which 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.
17. For a business entity not listed on the stock market, an equity beta is commonly estimated by estimating asset beta and debt beta values from observations of comparable listed entities and re-levering these into an equity beta that is consistent with the assumed capital structure of the entity being examined.
18. In its Amended Draft Decision, the Authority determined that it was appropriate to assume an asset beta value of 0.65 for the GGP, corresponding to an equity beta value of 1.33 for an assumed gearing of 60 percent debt to total assets. This determination of the Authority took into account that available evidence from capital markets suggests an equity beta value for gas transmission pipelines of 0.7 or less (for an assumed gearing of 60 percent), but that Australian regulators have recently adopted a cautionary approach in regard to equity beta values in the face of limited empirical evidence and have to date adopted a value of 1.0. The Authority also took into account a view that as a result of servicing markets that are predominantly related to mining and mineral processing, transmission pipelines in Western Australia may be

⁹⁵ Essential Services Commission, October 2002, Review of Gas Access Arrangements: Final Decision, pp332-356, citing Jardine Fleming Capital Partners Limited, (September, 2001) *The Equity Risk Premium – An Australian Perspective*, Trinity Best Practice Committee.

⁹⁶ Davis, K., 18 March 1998. The Weighted Average Cost of Capital for the Gas Industry, Report Prepared for: Australian Competition and Consumer Commission and Office of the Regulator General. Lally, M., June 2002, The Cost of Capital Under Dividend Imputation, Prepared for the Australian Competition and Consumer Commission. SFG Consulting, September 2003, Issues in Cost of Capital Estimation. All cited in The Allen Consulting Group (March 2004), *Review of Studies Comparing International Regulatory Determinations*, Report to the Australian Competition and Consumer Commission.

exposed to a higher level of systematic risk that should be reflected in a higher equity beta value.

19. Throughout the process of the Authority's assessment of the proposed Access Arrangement, GGT has submitted that the values of asset and equity betas should be higher than that assumed by the Authority.
20. For its proposed Access Arrangement of 15 December 1999, GGP determined the Rate of Return on the basis of an equity beta value of 1.4, with an assumed gearing (debt to asset ratio) of 50 percent, corresponding to an equity beta of approximately 1.6 at a gearing of 60 percent. GGT's reasoning for this assumed value of the equity beta is examined as follows.
21. Firstly, GGT has submitted that if empirical evidence is to be used to determine the appropriate value of the equity beta, then the appropriate evidence is the observed beta values of the customers of the pipeline (mining companies) rather than observed beta values of other gas pipeline companies, reflecting a pre-supposed more "risky" demand for pipeline Services for the GGP than for a more typical gas transmission pipeline that serves industrial and urban gas consumers.
22. Secondly, in a submission made subsequent to the April 2001 Draft Decision, GGT claimed that it is entitled to a return that reflects the unique risk of the GGP business as well as market risk:⁹⁷

The Regulator has made a serious error in not taking into account the issue at hand - the risk of the GGP as a stand-alone entity. The issue at hand is the risk faced by a particular pipeline and the commensurate requirement for return on investment from that same particular pipeline.

The risk of a portfolio containing a variety of equities (some more risky, some less risky) is simply irrelevant.
23. In regard to the first of these contentions of GGT, no evidence has been presented to support the implicit assertion of GGT that a relatively high volatility in returns for mining companies is reflected in the demand for energy and thus the revenues and profits of a gas transmission pipeline servicing the mining companies. The Authority does not accept GGT's submission that the Users of the GGT are relevant comparators for the determination of an equity beta for the GGP business.
24. In regard to the second of the contentions of GGT, the view that the Rate of Return estimated for the GGP should take into account the unique risk of the GGP business is contrary to the core assumptions of the CAPM model, which provides only for non-specific or non-diversifiable risk to be taken into account. The historical use of the CAPM for estimating a rate of return for the GGP would suggest that the financial advisers to GGT and the owners of the GGP recognised that unique risks of the GGP business should not be taken into account in determining the Rate of Return for the purposes of calculating regulated tariffs.
25. Subsequent to the Amended Draft Decision, GGT has made inconsistent submissions proposing use of an equity beta value of 1.1035 and 2.47. The Authority presumes that both of these values have been determined consistently with GGT's assumed

⁹⁷ GGT Submission, 13 July 2001, p34, emphasis in original.

level of gearing (50 percent debt to assets) and has determined that the equivalent equity beta values at a gearing of 60 percent are 1.29 and 3.08, respectively. The Authority notes that the lesser of these two values, derived from advice to GGT from KPMG, is close to that considered appropriate by the Authority for the purposes of the Amended Draft Decision (1.33 at a gearing of 60 percent). The higher value was derived by GGT based on beta values estimated for the Users of the GGP.

26. The Authority maintains the view expressed in the Amended Draft Decision that there is no justification for determining a beta value for the GGP other than on the basis of observed values from other comparable pipeline or energy-utility companies.
27. In the Amended Draft Decision, the Authority cited a study in 2002 of empirical estimates for comparable domestic Australian gas and electricity transmission and distribution companies (and from US, UK and Canadian companies) that indicated asset beta values in the order of 0.3 to 0.35 for the Australian companies, suggesting equity beta values of 0.65 to 0.70 (re-levered for a gearing ratio of 60 percent).⁹⁸ With negative betas excluded, the re-levered (to 60 percent gearing) equity betas for Australian, US, UK and Canadian companies were 0.66, 0.20, 0.18 and 0.26 respectively. The study concluded that, for regulatory purposes, based on the evidence, a downward revision of equity beta to 0.70 (rounded up from 0.66) could be applied. However, caution was recommended in doing so on the basis that the quality of empirical evidence necessary for such a downward revision from the values currently used by regulators did not exist at the time of the study. Updating of these empirical estimates of beta values for Australian companies to June 2003 indicates lower asset beta values in the order of 0.1 to 0.25, corresponding to equity beta values in the order of 0.2 to 0.35 (still re-levered to a consistent assumption of 60 percent gearing).⁹⁹
28. Subsequent to issue of the Amended Draft Decision, the Authority has received further advice on beta values that gave attention to a different period for estimation of beta values for the purpose of avoiding a potential bias in estimates resulting from the effect of the “technology bubble” in stock prices in the late 1990s and early 2000s.¹⁰⁰ The beta estimate thus made for comparable Australian entities was 0.82, re-levered to be consistent with an assumed gearing level of 60 per cent debt to assets. This beta estimate was very similar to the beta estimate for the set of 12 comparable USA entities of 0.72, estimated using the same methodology and also re-levered to be consistent with an assumed gearing level of 60 per cent debt to assets.
29. The Authority considers that the major Western Australian gas transmission pipelines are at least as exposed to systematic risk as other Australian gas transmission pipelines and distribution systems and therefore accepts an equity beta value of 0.8 at 60 percent gearing as the lower bound of a reasonable range of estimates for the GGP.

⁹⁸ The Allen Consulting Group (July 2002), *Empirical Evidence on Proxy Beta Values for Regulated Gas Transmission Activities*, report to the Australian Competition and Consumer Commission.

⁹⁹ Essential Services Commission of South Australia, January 2004, *Electricity Distribution Price Review: Return on Assets, Preliminary Views*. (The updated estimates of equity beta values provided in this report were calculated by The Allen Consulting Group using the same methodology as for the July 2002 report cited above.)

¹⁰⁰ The Allen Consulting Group, January 2005, *Electricity Networks Access Code: Advance Determination of a WACC Methodology*, report to the Economic Regulation Authority.

30. The Authority also considers that as the gas transmission markets for the major transmission pipelines in Western Australia are predominantly markets for supply of gas to mining and mineral processing activities, rather than supply to households and diversified businesses, the Western Australian gas transmission pipelines may be exposed to a greater level of systematic risk than transmission pipelines and distribution systems in the eastern states of Australia. The Authority recognises that there is no firm evidence for such a view. Furthermore, the Authority notes that there are no robust empirical methods for discerning the relative systematic risk of the different Australian pipeline businesses (that is, the systematic risk of one pipeline business compared to another).
31. The Authority has previously applied a subjective assessment of relative systematic risk in its consideration of proposed Access Arrangements for Western Australian Pipelines and has determined appropriate equity beta values for pipelines as follows, in order of supposed increasing systematic risk.

Determinations by the Authority¹⁰¹ of relative levels of systematic risk and equity beta values for Western Australian gas pipelines

Pipeline¹⁰²	Equity beta value considered appropriate by the Authority (at 60 percent gearing)
Mid West and South West Gas Distribution Systems	1.00
DBNGP	1.20
Parmelia Pipeline	1.33
Tubridgi Pipeline System	1.33
Goldfields Gas Pipeline	1.33

32. The Authority accepts a possibility that, due to the very narrow market of the GGP, this pipeline may be exposed to as high or a higher level of systematic risk than, for example, the DBNGP. However, in the absence of any evidence that this is actually the case, the Authority considers that a reasonable upper bound to assumptions that may be made for the equity beta value for the GGP is only marginally greater than the value assumed for the DBNGP. For the purposes of this Final Decision, the Authority thus considers a reasonable upper bound to be an equity beta value of 1.33, consistent with the values previously considered appropriate by the Authority for the small pipeline systems in Western Australia (the Parmelia Pipeline and Tubridgi Pipeline System). A value of 1.33 is also consistent with the position on the equity beta taken by the Authority in the Amended Draft Decision, and broadly consistent with advice provided by KPMG to GGT and applied by GGT for the determination of Reference Tariffs in its revised Access Arrangement. The Authority notes, however, that an increasing amount of data from capital markets suggests that an equity beta value of

¹⁰¹ Determinations include those made prior to January 2004 by the Independent Gas Pipelines Access Regulator.

¹⁰² References to Decisions: Draft Decision on Proposed Revisions to the Access Arrangement for the mid West and South West gas Distribution Systems (28 February 2005); Final Decision on the Proposed Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline (23 May 2003); Final Decision Proposed Access Arrangement for the Parmelia Pipeline (20 October 2000); Final Decision Proposed Access Arrangement for the Tubridgi Pipeline System (19 October 2001).

1.33 may be too high for a gas pipeline company, and this value may in the future not be supportable as an upper bound assumption.

Cost of Debt

33. In the Amended Draft Decision, the Authority used an estimate of the cost of debt margin of 1.2 percentage points, based on a range of data sources on debt margins including CBA Spectrum and the domestic bond market. The Authority took the view that the available evidence suggested a reasonable estimate of the debt margin for the GGP may lie between 40 and 105 basis points. The Authority also determined that it was appropriate to allow a further 12.5 basis points to compensate for debt issuance costs.
34. The methodology adopted by the Authority in the Amended Draft Decision for estimating the cost of debt is broadly consistent with that proposed by GGT, although GGT has made a different estimate of the cost of debt. For its proposed Access Arrangement of 15 December 1999, GGT proposed determination of the cost of debt by addition of a “debt risk margin” to the risk-free rate.
35. GGT proposed a debt risk margin of 2.25 percent comprising:
 - 25 basis points for the typical margin between the Commonwealth Government Treasury bond rate and a “bank rate” against which credit margins would be levied;
 - 150 to 200 basis points for the credit margin on debt funding for the pipeline, given the risks involved; and
 - 25 basis points for a “swap costs” margin.
36. GGT indicated that an assumed debt risk margin of 200 to 250 basis points is supported by empirical evidence, but did not present or cite this evidence.
37. In its submission of 17 December 2002, GGT presented an assumption of a debt margin of 157.5 basis points, and indicated that this is supported by empirical evidence, although again the evidence referred to was not presented or cited.
38. GGT has not submitted that the Regulator made any error in consideration in the Amended Draft Decision of the cost of debt.
39. The Authority maintains the view expressed in the Amended Draft Decision that the appropriate benchmark for estimation of the cost of debt is an entity with a BBB+ credit rating and 60 percent gearing (debt to total assets) and has taken into account more recent (March 2005) evidence of the cost of debt in Australian bond markets, as follows.

Bond spreads for BBB+ rated utility businesses at 15 March 2005¹⁰³

Maturity	CBA Spectrum	CSR	Investa	Snowy Hydro
5 years (at 15 March 2005)	90.5	78.8	92.5	
5 years (20-day average)	91.8	81.5	94.6	
10 years (at 15 March 2005)	97.7			120.3
10 years (20-day average)	98.9			121.4

40. The above evidence indicates yields on corporate bonds rated BBB+ of between about 80 and 95 basis points for five year bonds and 100 to 120 basis points for 10 year bonds.
41. The Authority also notes that the debt premium evident from CBA Spectrum service and recent transactions in Australia may be a high estimate of the cost of debt. The assumption that all debt is raised in the Australian market, which is implicit in the use of a margin produced by the CBA Spectrum or similar service to derive the benchmark debt margin, may be questioned. There is ample evidence that Australian companies are approaching US and European bond markets, and that this is driven primarily by the fact that this provides a lower cost of funds.¹⁰⁴
42. Taking this evidence into account, the Authority considers a reasonable estimate of the debt margin to allow for the GGP may be within the range of 0.9 to 1.1 percentage points.
43. The Authority has received advice that a reasonable allowance for debt raising costs, expressed as a mark-up to the debt premium, is between 8 and 12 basis points.¹⁰⁵ On this basis, the Authority considers that an allowance of between 8 and 12.5 basis points (consistent with substantial regulatory precedent in Australia) is reasonable.
44. With a debt margin of 0.9 to 1.1 percentage points and an allowance for debt raising costs of 0.08 to 0.125 percentage points, the Authority considers that a reasonable estimate of the cost of debt for the GGP is 0.980 to 1.225 percentage points above the risk free rate.

¹⁰³ Data sourced from CBA Spectrum and Bloomberg. Terms to maturity are approximate. The CSR bond matures in 17 March 2009 and so has a term of less than four years. The Investa bond matures on 29 September 2009 and so is less than five years. The Snowy Hydro bond matures on 25 February 2013 and so is less than eight years.

¹⁰⁴ For example, Philip Baker, (3 April, 2003) "Why funds want to crash private placement market" Australian Financial Review: "Europe, Asia and, of course, the local market are all available to local corporations — but for competitive pricing and the chance to lock in long term debt, its impossible to bypass the market also known as the US Regulation D market. 'The pricing that these issues go at simply cannot be replicated in most other markets,' says Westpac's head of credit market research, John Lynam." cited by The Allen Consulting Group, *ibid.*, p 44.

¹⁰⁵ The Allen Consulting Group, January 2005, *Electricity Networks Access Code: Advance Determination of a WACC Methodology*, report to the Economic Regulation Authority, p 45.

Financial Structure

45. An assumption about the proportions of equity and debt in the financing structure of the GGP business is necessary to determine a WACC from estimates of the costs of equity and debt.
46. Section 8.31 of the Code states that:

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.
47. The implication of this provision of section 8.31 of the Code is that the financial structure assumed in calculating a WACC for a business should not necessarily reflect the actual financial structure of the regulated business, but rather should be in the nature of a benchmark assumption for the gas pipeline industry.
48. To date, regulators under the Code have almost invariably adopted a benchmark assumption for the financial structure of regulated businesses of 60 percent gearing (debt to total assets). In the Amended Draft Decision, the Authority also adopted an assumed gearing of 60 percent and cited a range of observed gearing levels for Australian utility companies in support of this benchmark.¹⁰⁶
49. For the proposed Access Arrangement of 15 December 1999 and in subsequent submissions made to the Authority, GGT has proposed a Rate of Return based on an assumed gearing of 50 percent assets. In its submission of 17 December 2002, GGT contended that this assumption as to gearing was a fundamental element of the original arrangement with the State of Western Australia (in the initial setting of third-party tariffs) and this should not be altered. This contention was not, however, supported by any information available to the Authority and relating to the initial determination of tariffs. Moreover, for the reasons expressed in the main text of this Final Decision (paragraphs 273 to 276), the Authority does not consider any precedent on the Rate of Return under the State Agreement to be necessarily relevant to determination of the Rate of Return under the Code.
50. Recognising that the Code provides for a benchmark assumption of financial structure to be used in the determination of the Rate of Return, the Authority maintains the view that an appropriate assumption for the financial structure is a gearing level of 60 percent debt to total assets, consistent with regulatory precedent and, generally, with observed levels of gearing of Australian pipeline companies. In view of data suggesting that businesses that are close to pure-play pipeline businesses have higher levels of gearing, the Authority considers this assumption to be a conservatively low.

Taxation

51. There have been two broad approaches taken by regulators and regulated companies under the Code to allowing for the costs of taxation in regulated revenue targets: the use of a pre-tax Rate of Return, making an allowance for the cost of taxation by using a higher Rate of Return, and including an allowance for the cost of taxation directly in the cost forecasts used for the determination of Total Revenue.

¹⁰⁶ Amended Draft Decision, paragraphs 310 to 314.

52. GGT has proposed use of a pre-tax Rate of Return in the determination of Total Revenue for the GGP. This is consistent with the approach taken by pipeline Service Providers and the Authority for Access Arrangements for all other Covered Pipelines in Western Australia.
53. The CAPM and WACC models generally deliver an estimate of the required after-tax (or “post tax”) return to providers of funds. There are two relevant taxation issues in determining a pre-tax WACC: the method that is used to estimate company taxation liabilities associated with regulated activities, and the value of imputation or franking credits.
54. Taking first the method that is used to estimate company taxation liabilities, for the majority of Access Arrangements approved in Australia to date where a pre-tax Rate of Return has been used, a simple transformation of a nominal post-tax WACC to a real pre-tax WACC has been applied, based on one or both of the following transformation methods:
- forward transformation, involving division of the post-tax nominal WACC by $1 - T$, where T is the statutory taxation rate, and then deducting inflation (using the Fisher transformation¹⁰⁷) to derive the pre-tax real WACC; and
 - reverse transformation, involving first deducting inflation from the post-tax nominal WACC, and then grossing up the real post-tax WACC by one minus the statutory taxation rate.
55. More recently, the forward transformation has generally been used, reflecting a view that changes to the company taxation regime in Australia, implemented as of 1 July 2000, are likely to narrow the gap between the statutory and effective tax rates for infrastructure firms in Australia. This transformation methodology has become a de facto standard in estimating pre-tax WACCs and the Authority considers this to be compliant with the Code and does not understand this to be contentious. Consistent with this, GGT has utilised the forward transformation methodology in determination of Rates of Return for the proposed and revised Access Arrangements.
56. In application of the forward transformation methodology it has been common to use a corporate taxation rate equal to the expected statutory taxation rate for the Access Arrangement Period. Again, the Authority is of the view that this approach complies with the Code and does not envisage this assumption to be contentious.
57. The Authority therefore considers that it is reasonable to adopt the forward transformation methodology to derive a pre-tax WACC, with the taxation rate set at the expected average rate of corporate income tax for the period 1 January 2000 to 31 December 2009, which is the rate of 30.7 percent.
58. The second issue in relation to taxation is the assumption that is made about the value ascribed to imputation or franking credits, which may reduce the effective rate of tax on returns to equity.

¹⁰⁷ $Real\ WACC = \frac{1 + nominal\ WACC}{1 + i} - 1$, where i is the inflation rate.

59. Franking credits, or imputation credits, are an allowance under the Australian taxation system that permit taxation liabilities of shareholders to be offset by the value of company tax already paid on profits from which the dividend payments are made. The approach for reflecting the value of franking credits that has emerged as standard practice is to use a market (equity) risk premium that assumes that Australia has a classical tax system (i.e. no franking credits), 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 (“ γ ”) term in the Officer WACC formula – can be interpreted as the value of each franking credit that is created by the firm. The gamma value represents the value of franking credits as a proportion of the face value of that franking credit, and may take a value between 0 and 1. A low gamma implies that shareholders do not obtain much relief from corporate taxation through imputation and therefore require a higher pre-tax rate of return to earn the same effective return on investment, and vice versa.
60. For the proposed Access Arrangement of December 1999 and in subsequent submissions, GGT proposed that no value be ascribed to franking credits for the purposes of determining the Rate of Return, i.e. $\gamma = 0$. In its submission of December 2002, GGT contends that the assumed zero value of franking credits was a fundamental element of the original arrangement with the State of Western Australia (in the initial setting of third-party tariffs) and this should not be altered.
61. GGT’s contention that an assumed zero value of franking credits was an immutable element of the arrangement with the State in respect of third-party tariffs is not supported by any information available to the Authority and relating to the initial determination of tariffs. Moreover, for the reasons expressed in the main text of this Final Decision (paragraphs 273 to 276), the Authority does not consider any precedent on the Rate of Return under the State Agreement to be necessarily relevant to determination of the Rate of Return under the Code.
62. In Australia, regulators under the Code have to date generally adopted a γ value of 50 percent, based on the 1999 study by Hathaway and Officer, which estimates gamma at close to 0.50.¹⁰⁸ The Authority took the view in the Amended Draft Decision that this assumption is appropriate for the GGP. This study has recently been updated by the authors and the estimate of gamma revised to between 0.28 and 0.36.¹⁰⁹
63. The Authority acknowledges that the appropriate value to be assumed for the value of imputation credits is highly contentious. The principal issues in the debate about the appropriate value for imputation credits are canvassed in the advice from KPMG to GGT on the Rate of Return¹¹⁰ and also in advice obtained by the Authority in relation

¹⁰⁸ Hathaway, N. and R.R. Officer (1999), *The Value of Imputation Tax Credits*, Unpublished Manuscript, Graduate School of Management, University of Melbourne.

¹⁰⁹ Hathaway, Neville and Officer, Bob (2004), *The Value of Imputation Tax Credits: Update 2004*, Capital Research Pty Ltd, p. 8.

¹¹⁰ KPMG, November 2004, Goldfields Gas Transmission Pty Ltd: Weighted Average Cost of Capital.

to the Rate of Return for the AlintaGas Networks Mid-West and South-West Gas Distribution Systems.¹¹¹ The matters of debate include:

- methodologies for empirical estimation of the value of imputation credits;
- the “identity” of the marginal investor and the interdependency of the assumed value of imputation credits and assumptions as to the market risk premium and beta values, and the need for internal consistency in applying *either* a domestic CAPM model (with the marginal investor being Australian and able to utilise imputation credits) or international CAPM model (with the marginal investor being foreign and unable to utilise imputation credits); and
- inconsistent practice amongst financial practitioners in assumptions as to the value of imputation credits.

The Authority notes the absence of consensus amongst researchers on the appropriate value for gamma in a WACC calculation and of any consistent precedent by financial practitioners. However, the Authority also notes that while many financial practitioners do not ascribe a value to franking credits, these same financial practitioners also generally take a view of the expected market risk premium being substantially below the value of 6.0 that the Authority has considered as the upper limit of a reasonable range for this parameter. As such, the Authority takes the view that if the reasonable range for the market risk premium is taken as 5.0 to 6.0, then it is unreasonable not to ascribe some value to franking credits. In this regard, while the Authority does not consider that the value of gamma in the CAPM should be valued at the extremes of zero or one, the Authority considers that a reasonable estimate of the value of gamma may lie in the range of 0.3 to 0.6.

Ranges in Parameter Values and Estimated WACC

64. The parameter values (or ranges in values) for the CAPM that the Authority considers may reasonably be applied in consideration of the Rate of Return for the GGP are set out in the table below.

¹¹¹ The Allen Consulting Group, May 2004, AlintaGas Networks Revised Access Arrangement: Proposed Rate of Return, Report to the Economic Regulation Authority.

Reasonable CAPM parameter values for estimation of the rate of return for the GGP

Parameter	Value
Risk free rate (nominal, %)	5.45
Risk free rate (real, %)	2.69
Expected inflation (%)	2.69
Market risk premium (%)	5.0 – 6.0
Equity beta	0.80 – 1.33
Cost of debt margin (%)	0.980 – 1.225
Corporate tax rate (%)*	30.7
Franking credit value (γ)	0.3 – 0.6
Debt to total assets ratio (%)	60
Equity to total assets ratio (%)	40

* Average taxation rate for the ten year period 2000 – 2009.

65. The ranges in the estimated cost of equity corresponding to the ranges in the values of the CAPM parameters are as follows.

Estimated cost of equity derived from ranges in CAPM parameter values

Cost of Equity (%)	Nominal	Real
Post-Tax	9.5 – 13.4	6.6 – 10.5
Pre-tax	10.8 – 17.1	7.9 – 14.0

66. The ranges in estimated WACC values corresponding to the ranges in the values of the CAPM parameters and ranges in the estimated cost of debt are as follows.

Estimated WACC values derived from ranges in CAPM parameter values

Estimated WACC (%)	Nominal	Real
Post-Tax (Officer)	5.7 – 7.5	2.9 – 4.7
Pre-tax (forward transformation of Officer WACC)	8.2 – 10.8	5.3 – 7.9