

Final Approval

GasNet Australia access arrangement revisions

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Preface

GasNet Australia (Operations) Pty Ltd (GasNet) lodged proposed revisions to its natural gas transmission access arrangements with the Australian Competition and Consumer Commission (the Commission) on 28 March 2002. The Victorian Energy Networks Corporation (VENCorp) also lodged proposed revisions to its access arrangement at that time. The Commission approved these access arrangements in 1998.

Under the *National Third Party Access Code for Natural Gas Pipeline Systems* (the Code), the Commission is required to decide whether to approve or not approve the proposed revisions. It may only approve a proposed revised access arrangement if it is satisfied that it contains the elements and satisfies the principles set out in sections 3.1 to 3.20 of the Code. In doing so the Commission must take into account the factors described in section 2.24 of the Code and the provisions of the access arrangement.

The Commission issued its Final Decision on 13 November 2002 setting out its assessment of GasNet's proposed revised access arrangement. The Commission decided not to approve GasNet's proposed revised access arrangement in its current form. The Commission set out the amendments (or nature of the amendments) which would have to be made to the revisions for it to approve them. The Commission released a separate Final Decision that approved VENCorp's revised access arrangement.

GasNet submitted amended revisions to the Commission on 6 December 2002 and a revised version on 6 January 2003. The Commission is not satisfied that these revisions incorporate the amendments specified in the Final Decision or otherwise address the matters identified in the Final Decision as being the reasons for specifying the amendments. Therefore, pursuant to section 2.41(c) of the Code, the Commission does not approve GasNet's amended revisions. Pursuant to section 2.42, the Commission has drafted and approved its own revised access arrangement for GasNet. The reasons for these decisions are set out in this document. In summary, the Commission's revisions vary from GasNet's amended revisions as they adopt Commonwealth bonds of a different term for estimating the risk free rate and use different values for the equity beta, debt raising costs, asymmetric risks allowance and inflation. The Commission's revisions provide for average annual benchmark revenue of \$77.0 million whereas GasNet's amended revisions provide for \$81.9 million.

GasNet's second access arrangement period commences on 1 February 2003. GasNet calculated its revised tariffs on the basis that its amended revisions would commence on 1 January 2003. The Commission has included transitional provisions in its revised access arrangement that will allow GasNet to achieve the same revenue from users of the Victorian natural gas transmission system in 2003 as it would have if the revised tariffs came into effect on 1 January 2003.

Copies of public documents relevant to this review are available from the Commission's website at www.accc.gov.au (under 'Gas').

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1. Introduction

1.1 Access arrangement revisions

GasNet Australia (Operations) Pty Ltd (GasNet) has been subject to two separate natural gas transmission access arrangements, which were approved by the Australian Competition and Consumer Commission (the Commission) in December 1998, for the Principal Transmission System (PTS) and the Western Transmission System (WTS). An access arrangement is a statement of the policies and basic terms and conditions which apply to third party access to a pipeline.

Under the market carriage capacity management system operating on the PTS, users pay tariffs to both the system owner, GasNet, and the independent system operator, Victorian Energy Networks Corporation (VENCorp). Approximately 85 per cent of the combined tariff is currently paid to GasNet.

In accordance with section 2.28 of the Code and the provisions of their access arrangements, VENCorp and GasNet submitted proposed revised access arrangements and revised access arrangement information to the Commission on 28 March 2002. GasNet states that its single revised access arrangement would apply to the GasNet System (GNS) which would include both the PTS and the WTS.¹

1.2 Criteria for assessing revisions

The Commission may approve revisions to an access arrangement only if it is satisfied that the access arrangement as revised would contain the elements and satisfy the principles set out in sections 3.1 to 3.20 of *National Third Party Access Code for Natural Gas Pipeline Systems* (the Code). Revisions to an access arrangement cannot be opposed solely on the basis that the access arrangement as revised would not address a matter that section 3 of the Code does not require it to address.

In assessing proposed revisions to an access arrangement, section 2.46 of the Code requires the Commission to take into account the provisions of the access arrangement as it currently stands and the following factors specified in section 2.24:

- (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);

¹ In contrast, VENCorp refers to the combined system as the PTS.

- (f) the interests of Users and Prospective Users;²
- (g) any other matters that the Relevant Regulator considers are relevant.

On 23 August 2002 the Full Court of the Supreme Court of Western Australia handed down its decision in the matter of *Re Michael; Ex parte Epic Energy (WA) Nominees Pty Ltd* [2002] WASCA 231 (the Epic decision). In that decision, the Court considered the meaning and operation of various provisions of the Code including sections 2.24 and 8.1.

The Epic decision and the criteria that apply to the Commission's assessment of proposed revisions to an access arrangement are discussed in further detail in section 1.2 of the Commission's GasNet Final Decision.

1.3 Process

The process of reviewing GasNet's and VENCORP's proposed revisions has involved the following key steps:

- advertising the receipt of the proposed revisions;
- release of an Issues Paper (19 April 2002) for public comment;
- issue of Draft Decisions (14 August 2002) (proposing not to approve the revisions submitted by GasNet and VENCORP) for public comment;³ and
- issue of Final Decisions (13 November 2002).⁴

The process followed by the Commission is set out at section 1.3 of the GasNet Final Decision. In summary:

- GasNet and 15 interested parties lodged submissions in response to the Draft Decisions; and
- although a number of parties⁵ requested a public forum, the Commission decided not to hold a forum due to the limited time leading up to the proposed implementation of revised tariffs on 1 January 2003 and the importance that GasNet and users place on certainty about the timing of implementation of revised tariffs. However, Commission staff discussed the Draft Decision with a number of interested parties.

In response to the Draft Decisions:

- VENCORP submitted amended revisions to its access arrangement. The Commission's Final Decision approved VENCORP's amended revised access arrangement; and

² 'User' means a person who has a current contract for a service or an entitlement to a service as a result of an arbitration (section 10.8 of the Code).

³ The Draft Decisions were published on 20 August 2002.

⁴ The Final Decisions were published on 18 November 2002.

⁵ BHP Billiton, EUCV, Amcor and PaperlinX.

- GasNet elected not to provide amended revisions. The Commission, in its Final Decision, decided not to approve GasNet's revised access arrangement. The Commission specified 45 amendments that would need to be made to GasNet's revisions in order for the revised access arrangement to be approved and requested that GasNet submit amended revisions by 2 December 2002 (subsequently extended to 6 December 2002).

On 6 December 2002, pursuant to section 2.40 of the Code, GasNet lodged proposed amended revisions to its access arrangements together with a supplementary submission, amended access arrangement information and supplementary access arrangement information.⁶

On 6 January 2003, GasNet lodged a revised version of its proposed amended revisions and revised access arrangement information.⁷ The Commission (by letter dated 8 January 2003) accepted (for assessment) these documents on the basis that the changes corrected errors in the documents submitted on 6 December 2002 or were otherwise in response to issues identified by the Commission during the approval process. However, the Commission also expressed concern in relation to clause 3.4 of the access arrangement information which describes a method for estimating inflation for 2003 which was said to be 'consistent with the short term forecast incorporated in the Victorian Treasury election review of the Victorian economy'. The Commission stated:

As the reference tariffs in GasNet's amended revisions of 6 December 2002 were derived using this approach, the Commission is prepared to accept the change [for assessment]. However, this approach was not included in the access arrangement information of 6 December 2002 or earlier documents. Nor was it identified in GasNet's supplementary submission of that date as an area of departure from the Final Decision. No information has been provided at any stage to the Commission (or interested parties) to indicate how an inflation adjustment determined on this basis would be consistent with relevant Code provisions or the amendments specified in the Final Decision. The Commission will take these factors into account when considering GasNet's proposals.⁸

This issue is discussed in relation to Amendment 12 in section 2.1.4 of this Final Approval (see also Amendments 29 and 30).

GasNet also provided, on an informal basis, versions of its access arrangement and access arrangement information to assist the Commission in drafting and approving its own revised access arrangement.⁹ The Commission acknowledges GasNet's assistance in this matter.

⁶ GasNet's supplementary access arrangement information addressed concerns expressed by the Commission in its Final Decision that some of the information provided by GasNet to satisfy the requirements of section 2.6 of the Code was only available from its submission of 27 March 2002.

⁷ GasNet made a minor correction to its revised access arrangement on 14 January 2003 with regard to the definition of injection pipelines which the Commission has accepted.

⁸ Commission letter to GasNet, 8 January 2003.

⁹ GasNet stated that it provided these documents on a 'without prejudice basis'.

1.4 Assessment of amended revisions

Section 2.41 of the Code provides that where, following the final decision, a service provider submits amended revisions, the regulator is required to issue a further final decision that:

- (a) if the Relevant Regulator is satisfied that the amended revisions ... incorporate the amendments specified by the Relevant Regulator in its final decision ..., approves the amended revisions to the Access Arrangement; or
- (b) if the Relevant Regulator is satisfied that the amended revisions ... either substantially incorporate the amendments specified by the Relevant Regulator or otherwise address to the Relevant Regulator's satisfaction the matters the Relevant Regulator identified in its final decision as being the reasons for requiring the amendments specified in its final decision ..., either approves or does not approve the amended revisions to the Access Arrangement (in the Relevant Regulator's discretion); or
- (c) in any other case, does not approve the amended revisions to the Access Arrangement.

Where the regulator does not approve the amended revisions submitted by the service provider, section 2.42 of the Code requires the regulator to 'draft and approve its own amended revisions to the Access Arrangement, instead of the revisions proposed by the Service Provider'.

Section 2.48 of the Code provides that a decision by the regulator under section 2.42 is:

subject to review by the Relevant Appeals Body under the Gas Pipelines Access Law. Subject to the Gas Pipelines Access Law, revisions to an Access Arrangement come into effect on the date specified by the Relevant Regulator (which date must not be earlier than either a date 14 days after the day the decision was made or ... the Revisions Commencement Date).

1.5 Further final decision

In its supplementary submission of 6 December 2002, GasNet identified the following areas of difference between its amended revisions and the Commission's Final Decision:

- (a) GasNet set the risk free rate by reference to 10 year Government bonds as opposed to the 5 year period adopted by the Commission;
- (b) GasNet has used an equity beta of 1.16 as opposed to ... an equity beta of 0.97 adopted by the Commission;
- (c) GasNet has included an allowance of 25 basis points for debt raising costs as opposed to the 12.5 basis points allowed by the Commission; and
- (d) GasNet has included approximately \$500,000 for asymmetric risk whereas the Commission has allowed only \$22,000.¹⁰

The amended revisions provided on 6 January 2003 raise an additional issue. GasNet has used an inflation estimate of 2.52 per cent for 2003 and 2.07 per cent for each of the following four years as opposed to the annual estimate of 2.16 per cent specified by the Commission.

¹⁰ GasNet supplementary submission, 6 December 2002, p. 3.

GasNet's supplementary submission also raised a number of issues regarding the Commission's approach. In summary, GasNet submitted that:

- the Commission has misunderstood its role under the Code. The Commission is required to, and had not, set out the reasons why it considers that GasNet's proposal does not comply with the Code;
- the Code permits a range of tariff outcomes. GasNet's proposal falls within the range of outcomes permitted by the Code; and
- the Commission is required to, and had not, assessed the overall impact of the revisions, particularly with reference to section 2.24 of the Code.

The Commission's assessment of GasNet's amended revisions and supplementary submission is set out in chapter 2 of this Final Approval.

1.6 Timing of final approval

After receiving GasNet's response to its Final Decision on 6 December 2002, the Commission conducted a preliminary assessment of the processes it would need to undertake to reach its further final decision. It concluded that it would be unlikely to be able to give due consideration to GasNet's amended revisions and supplementary submission in time to make a decision that could commence on the revisions commencement date of 1 January 2003.

On 9 December 2002, the Commission advised GasNet that it was unlikely that revised tariffs would commence on 1 January 2003. In response, GasNet expressed the view that the Commission had a duty to ensure that the second access arrangement period commenced on the revisions commencement date and that the Commission should be able to complete all necessary processes by then.

After considering GasNet's response, the Commission, on 13 December 2002, advised GasNet that the Commission's view remained unchanged. The Commission proposed a number of alternative solutions that would minimise the impact of the delay whilst allowing the Commission to consider properly GasNet's amended revisions and supplementary submission.

The transitional arrangements proposed by GasNet and approved by the Commission are discussed at section 2.1.12 of this Final Approval. More generally, the Commission notes that the process conducted by the regulator to approve revisions to an access arrangement will vary depending on factors such as:

- the complexity of the matters to be considered;
- the extent of public consultation;
- whether the draft decision proposes to accept the amended revisions as submitted;
- the service provider's response to the draft decision (in particular, if the draft decision is not to approve the revisions, whether the service provider submits amended revisions that comply with the proposed amendments); and

- the service provider's response to the final decision (in particular, if the final decision is not to approve the revisions, whether the service provider submits amended revisions that comply with the specified amendments. If the service provider does not do so, the regulator must draft and approve its own revisions).

At one extreme, the approval process would be expected to take comparatively little time if the issues being considered were relatively straight forward and if the regulator was able to approve the revisions in its final decision. This was the situation with VENCORP's revised access arrangement which the Commission approved on 13 November 2002.

The duration of the process will inevitably be longer if the regulator issues a final decision that specifies amendments to be made, and if it is required to draft and approve its own revised access arrangement. Accordingly, the Code (section 2.44) permits time extensions beyond the default assessment period for the consideration of revisions.

The Commission notes that GasNet proposed extensive and complex changes to its access arrangements. These include:

- merging the PTS and WTS access arrangements;
- redetermining the value of the initial capital base;
- inclusion of the Southwest Pipeline and the Murray Valley Pipeline in the capital base;
- the introduction of prudent discounts;
- substantial changes to the tariff structure;
- demand forecasts that differ from those determined by VENCORP and accepted by the Essential Services Commission (ESC);
- the introduction of a pass through mechanism and an explicit benefit sharing mechanism;
- the introduction of cash flow allowances for asymmetric risks, capital raising costs and normalisation; and
- rate of return issues (such as the value of the equity beta and the tenure of government bonds used to determine a proxy for the risk free rate).

The Commission has undertaken extensive public consultation, commensurate with the issues before it. This included allowing additional time for a number of interested parties (including GasNet) to lodge submissions. However, in view of the desires of GasNet and users to expedite the approval process, it did not agree to a proposal by a number of other parties to conduct a public forum in response to its Draft Decision. The Commission was concerned that this additional step would have delayed the approval process.

The provisions of the Code accommodate a range of possible processes and outcomes. In this instance, the process has been comparatively lengthy as the Commission has

ultimately needed to issue a further final decision and draft and approve its own access arrangement revisions.

2. Assessment of amended revisions

As outlined in chapter 1, chapter 2 of this Final Approval sets out the Commission's assessment of whether the amended revisions submitted by GasNet on 6 January 2003:

- incorporate (or substantially incorporate) the amendments specified in the Final Decision; or
- otherwise address the matters identified in the Final Decision as being the reasons for requiring the amendments.

Appendix 1 cross-references each amendment specified in the Final Decision with its location in that document and in this Final Approval.

2.1 Reference tariffs and reference tariff policy

2.1.1 Capital base

Amendment 8

Amendment required

GasNet must calculate the roll forward of the regulatory asset base on the basis of the initial capital base of \$358.0 million (at 1 January 1998) which was approved in the 1998 Final Approval.

GasNet's response

The reference tariffs in GasNet's amended revisions are derived from a capital base calculated using the initial capital base of \$358.0 million (at 1 January 1998).

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 8.

Amendment 9

Amendment required

GasNet must calculate the roll forward of the regulatory asset base without any adjustment to the proportion of indirect assets included.

GasNet's response

The value of indirect assets in the capital base used to calculate the reference tariffs in GasNet's amended revisions, is the value included in the calculation of the initial capital base of \$358.0 million (at 1 January 1998) adjusted for depreciation and inflation since that time.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 9.

Amendment 10

Amendment required

GasNet must use an inflation rate for 2002 in the calculation of the RAB which is based on the index numbers published by the ABS for the CPI, all groups, weighted average of 8 capital cities and uses an estimate for the fourth quarter based on the Fisher equation estimate of 2.16 per cent per annum.

GasNet's response

The reference tariffs in GasNet's amended revisions are derived from a capital base (\$494.1 million at the end of 2002) calculated using actual inflation up until the September quarter 2002, and an annual percentage of 2.16 for the last quarter of the year.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 10.

Amendment 11

Amendment required

GasNet must amend Schedule 1 of its revised access arrangement to include tariffs for the Southwest Pipeline which are approximately 10 per cent higher than those on the Longford to Pakenham Pipeline, consistent with \$42.5 million being recovered under each of the economic feasibility and system-wide benefits tests. An incremental tariff is to apply on the Southwest Pipeline. Recovery of costs included under the system-wide benefits test is to be by an equal dollar increase in the withdrawal tariffs.

GasNet's response

GasNet has amended Schedule 1 of its amended revisions to include the following elements:

- half the costs associated with the Southwest Pipeline are recovered under each of the economic feasibility and system-wide benefits tests;
- costs recoverable under the system-wide benefits test have resulted in a proportionate increase to all tariffs;
- the tariffs for the Southwest Pipeline are 10 per cent higher than for the Longford to Pakenham Pipeline. This increase is due to those costs which are recoverable under the economic feasibility test;
- the Southwest Pipeline tariff is an incremental tariff; and

- an equal dollar increase has been included in the withdrawal tariffs in order to recover costs included under the system-wide benefits test.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 11.

Amendment 27

Amendment required

GasNet must amend clause 3.5 of its access arrangement information so that in calculating a return on linepack and spare parts, GasNet must base the valuation of the items on historical expenditure and must use a valuation approach (nominal or real) consistent with the vanilla WACC to be applied. The value of spare parts not associated with regulated services must be removed from the calculations.

GasNet's response

The reference tariffs in GasNet's amended revisions include a return on working capital (\$0.11 million for return on linepack and spare parts in 2003 and 2004 and \$0.12 million in the following three years of the access arrangement period). It does not include a return on spare parts associated with non-regulated services. The return is calculated by applying a real vanilla weighted average cost of capital (WACC) to the asset values which are inflated each year.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 27.

2.1.2 Capital expenditure

Amendment 28

Amendment required

GasNet must amend section 3.6 of its revised access arrangement information to exclude from the calculation of tariffs forecast expenditure relating to the Brooklyn loop, stage two of the proposed Lurgi pipeline rehabilitation project and possible service lines.

GasNet's response

Clause 3.6 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the forecast capital expenditure on which the reference tariffs in GasNet's amended revisions are determined. GasNet has excluded the expenditure relating to the Brooklyn loop, stage two of the proposed Lurgi pipeline rehabilitation project and possible service lines. GasNet also notes that in the event that stage two of

the Lurgi project goes ahead, it will seek to have those costs included in the capital base in accordance with section 8.16 of the Code.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 28.

Amendment 29

Amendment required

GasNet must amend clause 3.6 of its revised access arrangement information to include the approved forecast capital expenditure for the three proposed gas chromatographs. It must also reflect the expected inflation rate specified in the Final Decision. These changes must also be incorporated into the revenue model used to determine reference tariffs for 2003 to 2007.

GasNet's response

Clause 3.6 of the revised access arrangement information submitted by GasNet on 6 January 2003 contains forecast capital expenditure on which the reference tariffs in GasNet's amended revisions are based. GasNet has included forecast capital expenditure for the proposed gas chromatographs. GasNet has used forecast inflation of 2.52 per cent for 2003 and 2.07 per cent for later years instead of 2.16 per cent as specified in Amendment 12 in the Final Decision. These changes have been incorporated into the revenue model to determine reference tariffs for the 2003 to 2007 period.

Commission's assessment

As GasNet's amended revisions do not use the inflation rate required in Amendment 12, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 29 (see section 2.1.4 of this Final Approval). This is reflected in the amended revisions drafted and approved by the Commission (see chapter 3 of this Final Approval).

Amendment 31

Amendment required

GasNet must correct its revenue model so that no return on capital or depreciation is calculated on capital expenditure in the year in which it is forecast to occur. Capital expenditure should be added to the opening balance of the asset base in the subsequent year at the forecast mid-year expenditure amount (as currently provided to the Commission) inflated to the end of the year.

GasNet's response

The tariff model used by GasNet to derive the reference tariffs in its amended revisions, has been changed in accordance with Amendment 31.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 31.

Forecast capital expenditure

GasNet's revised access arrangement information of 6 January 2003 schedules forecast capital expenditure for the Wollert heater for 2004. The proposed access arrangement information dated 27 March 2002 scheduled this expenditure for 2006. The Commission understands that this change is a result of an error in the initial proposal. The change has been incorporated into the access arrangement information that the Commission has approved.

2.1.3 Capital redundancy

Amendment 1

Amendment required

GasNet must amend clause 4.6 of its revised access arrangement so that the redundant capital policy applies to both partially and wholly redundant assets.

GasNet's response

GasNet has amended clause 4.6 of its revised access arrangement to read:

The Commission may review, and if necessary, adjust the Capital Base (at the start of the Third Access Arrangement Period) to take account of wholly or partially redundant assets, being assets which:

- (a) as a whole no longer contribute to the provision of the Tariffed Transmission Service; or
- (b) have a reduced contribution to the provision of the Tariffed Transmission Service due to the partial redundancy of that asset.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 1.

2.1.4 Rate of return

Amendment 12

Amendment required

GasNet must adopt a value of 2.16 per cent for expected inflation for the period 2003 to 2007 in its revised access arrangement.

GasNet's response

Clause 3.4 of the access arrangement information provided by GasNet on 6 December 2002 states:

As GasNet has adopted a real rate of return tariff methodology, the Reference Tariffs incorporate an escalation of the Capital Base each year. GasNet has used an annual inflation rate of 2.84% for 2002 based on the actual inflation to the September quarter and the forecast average of 2.16% implied by the difference in real and nominal rates for the following five years. This value has been used for the period 2003 to 2007.

In the access arrangement information provided on 6 January 2003, clause 3.4 was revised as follows:

As GasNet has adopted a real rate of return tariff methodology, the Reference Tariffs incorporate an escalation of the Capital Base each year. GasNet has used an annual inflation rate of 2.84% for 2002 based on the actual inflation to the September quarter and the forecast average of 2.16% implied by the difference in real and nominal interest rates for the following five years. For 2003 GasNet has used a rate of 2.52% consistent with the short term forecast incorporated in the Victorian Treasury election review of the Victorian economy. A value of 2.07% has been used for the period 2003 to 2007 as required to be consistent with the five year average.

The revenue model used to derive the reference tariffs in GasNet's amended revisions of 6 December 2002 and 6 January 2003 appears to use an annual inflation rate of:

- 2.16 per cent for each year of the access arrangement period to calculate the real rate of return and nominal non-capital costs (forecast operations and maintenance expenditure)¹¹ and to adjust the tariffs each year under the price path approach; and
- 2.52 per cent for 2003 and 2.07 per cent for the years 2004 to 2007 to calculate depreciation and the capital base (including forecast capital expenditure).

As discussed in section 1.3 of this Final Approval, the Commission was not aware of this issue until GasNet provided its revised access arrangement information on 6 January 2003. The access arrangement information provided by GasNet on 6 December 2002 was inconsistent with the revenue model used by GasNet to derive the reference tariffs in GasNet's amended revisions of 6 December 2002. Similarly, the supplementary submission provided by GasNet on 6 December 2002 did not identify this as a disputed issue. No further information has been provided by GasNet in support of its approach.¹²

Commission's assessment

Code provisions

The relevant Code provisions are discussed in relation to Amendment 13 later in this section 2.1.4. In summary:

¹¹ GasNet advised the Commission, on 8 January 2003, that it had used 2.52% for 2003 inflation for calculating the return, depreciation and operating expenditure. In response to a query by the Commission, GasNet, on 10 January 2003, clarified that 2.52% was used for capital expenditure and depreciation, and that 2.16% was in fact used for operating expenditure. In response to a further query, GasNet advised on 14 January 2003, that the former approach had been adopted for linepack and spare parts.

¹² In response to a query by the Commission, GasNet, on 8 January 2003, provided a spreadsheet used to calculate the inflation rates of 2.52% and 2.07%.

- sections 2.46 and 3.4 of the Code provide, in effect, that the Commission may only approve GasNet's proposed revisions if it is satisfied that the reference tariffs comply with the reference tariff principles described in section 8;
- section 8.2(a) provides that total revenue should be established consistently with the principles and according to one of the methodologies contained in section 8. Sections 8.4 to 8.7 concern the methodologies for calculating total revenue including the cost of service methodology (under which total revenue is calculated on the basis of a rate of return on capital, depreciation and non-capital costs);
- section 8.2(e) requires the Commission to be satisfied that any forecasts required in setting the reference tariff represent best estimates arrived at on a reasonable basis; and
- section 8.1 prescribes objectives that a reference tariff and reference tariff policy should be designed to achieve. More generally, the Commission is required, under section 2.46, to have regard to the factors described in section 2.24.

Under section 8.5A, the methodologies for determining total revenue 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.

Section 8.3 states:

Subject to these requirements 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 implementation of the Reference Tariff Policy is within the discretion of the Service Provider. For example, a Reference Tariff may be designed on the basis of:

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

Final Decision

The inflation calculation impacts on a number of components in the model used by GasNet to derive reference tariffs. As discussed in sections 3.3, 6.5 and 8.2 of the Final Decision, GasNet:

- calculates its total revenue on a ‘real basis’ (under which the capital base, depreciation and non-capital costs are expressed in nominal terms and a real rate of return is applied – see section 8.5A(b) of the Code); and
- uses a variation of the ‘price path’ approach to determine reference tariffs (under which tariffs are adjusted each year for inflation – see section 8.3(a) of the Code).

Forecast inflation is thus used to:

- derive, from market data, the real rate of return (sections 8.30-8.31 of the Code);
- calculate the nominal value of the capital base (including capital expenditure), depreciation and non-capital costs (sections 8.9, 8.32-8.33 and 8.36-8.37 of the Code); and
- vary the reference tariffs each year (section 8.3 of the Code).

As discussed in section 5.5.1 of the Final Decision, GasNet agreed that the appropriate method to calculate expected inflation is to use the Fisher equation from nominal and real bond rates. That is, the rate of inflation is estimated by reference to Commonwealth Treasury bond rates. However, GasNet regarded the 10 year bond rate as the appropriate rate to use rather than the five year bond rate proposed by the Commission in its Draft Decision.

For the reasons set out in section 5.5.1 of the Final Decision, the Commission concluded that reference tariffs calculated using an inflation rate based on a bond rate period that did not correspond with the access arrangement period would not comply with the Code requirements. Accordingly, Amendment 12 required GasNet to adopt a value of 2.16 per cent for expected inflation for the period 2003 to 2007. This approach would in fact increase GasNet’s total revenue.¹³

Use of Victorian Treasury forecasts

As set out above, in its amended revisions of 6 December 2002 and 6 January 2003, GasNet appears, in some instances, to have accepted the five year bond rate for the purpose of deriving the expected inflation rate (2.16 per cent per annum). In contrast, it has not accepted the use of the five year bond rate for the purpose of calculating the risk free rate (see Amendment 13). This approach results in a higher total revenue for GasNet than if a consistent approach were adopted for the bond tenure.

In other instances, GasNet has used an expected inflation rate of 2.52 per cent for 2003 and 2.07 per cent for the years 2004 to 2007 rather than 2.16 per cent as specified by the Commission. While GasNet’s methodology results in the same overall inflation adjustment for the period, the change in timing leads to a higher benchmark revenue than if the Commission’s annual adjustment of 2.16 per cent was used. Accordingly, the Commission is not satisfied that GasNet’s amended revisions incorporate Amendment 12.

¹³ For the period used in the Final Decision to derive the proxy for the risk free rate, Commonwealth Treasury bonds of 5 year tenure imply a higher inflation rate than do 10 year bonds.

As set out in section 1.4 of this Final Approval, section 2.41(b) of the Code provides that the Commission may approve amended revisions where it is satisfied that the revisions either:

- substantially incorporate the amendments specified by the Commission; or
- otherwise address to the Commission's satisfaction the matters the Commission identified in its Final Decision as being the reasons for requiring the amendments.

Where an amendment has not been incorporated, the Commission's approach is to consider whether the service provider's response otherwise addresses the relevant Code requirement that led to the Commission requiring the amendment.

However, in the current case:

- GasNet's approach was not included in the access arrangement information of 6 December 2002 or any other earlier documents provided to the Commission;
- this approach was not identified in GasNet's supplementary submission of 6 December 2002 as an item that departed from the Commission's Final Decision;
- no information regarding this approach has been provided to the Commission or interested parties to indicate how it is consistent with the relevant Code provisions or the amendments specified in the Final Decision;¹⁴
- there has been no opportunity for this alternative inflation calculation (which has a significant impact on reference tariffs) to be subject to public consultation. Any consultation carried out at this stage of the assessment process would require a postponement of the commencement date of the new access arrangement period. The issue of timing of the final approval is further discussed in sections 1.6 and 2.1.12 (Transitional Tariff Component) of this Final Approval; and
- the inconsistent inflation rates used by GasNet raises an issue under section 8.5A (which requires the approach used to deal with inflation to be applied consistently in determining total revenue and reference tariffs).

If GasNet provided further information and the Commission was able to conduct public consultation, it is possible that the Commission may be satisfied that GasNet's use of the Victorian Treasury forecasts meets the Code requirements and therefore addresses Amendment 12. However, on the basis of the current information supplied by GasNet, the Commission cannot reach such a conclusion. This is not altered by the argument made by GasNet in its supplementary submission of 6 December 2002, that its amended revisions should be approved as the difference in total revenue is only 5.8 per cent which disproportionately affects GasNet as opposed to users. (This submission is discussed in relation to Amendment 13 in this section 2.1.4 of the Final Approval).

Accordingly, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 12. This also affects Amendments 29 (forecast capital expenditure) and 30 (depreciation). This is reflected in the amended

¹⁴ GasNet provided a spreadsheet to the Commission on 8 January 2003 which demonstrates the calculation of the annual inflation estimates used to derive the tariffs in the amended revised access arrangement of 6 January 2003.

revisions drafted and approved by the Commission (see chapter 3 of this Final Approval).

Amendment 13

Amendment required

GasNet must adopt the Commission's CAPM parameters as set out in Table 5.3 of this Final Decision to more accurately reflect the current financial market settings. GasNet must use the real vanilla WACC of 6.30 per cent to calculate the return on asset component of revenues for its revised access arrangement.

GasNet's response

Clause 3.1 of the revised access arrangement information submitted by GasNet on 6 January 2003 states:

GasNet has used the Cost of Service methodology for determining its Total Revenue requirement. Using this methodology, Total Revenue is calculated on the basis of:

- (a) a return (Rate of Return) on the Capital Base;
- (b) depreciation of the Capital Base; and
- (c) the operating, maintenance and other non-capital costs incurred in providing all Services provided by the GNS. ...

Table 3-1 in the amended revised access arrangement information sets out the parameters used by GasNet to calculate the rate of return or WACC (which in turn is used to derive the reference tariffs in GasNet's amended revisions). The following table compares the parameters used by GasNet with the parameters specified in Amendment 13 of the Commission's Final Decision.

Table 2.1: CAPM parameters and WACC

		ACCC Final Decision	GasNet amended revisions
		November 2002	January 2003
real risk free rate	rr_f	3.08	3.33
expected inflation	F	2.16	2.16
nominal risk free rate	r_f	5.31	5.57
debt margin	DM	1.59	1.71
real cost of debt	rr_d	4.63	
nominal cost of debt	r_d	6.90	7.28
market risk premium	MRP	6.0	6.0
corporate tax rate	T_c	0.30	0.30
effective tax rate	T_e	0.07	
use of imputation credits	γ	0.50	0.50
debt funding	D/(D+E)	0.60	0.60
debt beta	β_d	0.18	0.14
asset beta	β_a	0.50	0.55
equity beta	β_e	1.0	1.16
nominal return on equity	r_e	11.15	12.53
real return on equity	rr_e	8.80	
real vanilla WACC		6.30	7.06

Source: ACCC, Final Decision, 13 November 2002, p. 112; GasNet amended revised access arrangement information, 6 January 2003, p. 5.

Commission's assessment

Code provisions

Under section 2.46 of the Code, the Commission may only approve GasNet's proposed revisions if it is satisfied that the revised access arrangement would contain the elements and satisfy the principles set out in sections 3.1 to 3.20. Sections 3.4 and 3.5 require GasNet's reference tariffs and reference tariff policy to comply with the reference tariff principles described in section 8. Section 8.2 relevantly states:

The factors about which the Relevant Regulator must be satisfied in determining to approve a Reference Tariff and Reference Tariff Policy are that:

- (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;
- ...
- (e) any forecasts required in setting the Reference Tariff represent best estimates arrived at on a reasonable basis.

As indicated in GasNet's revised access arrangement information, GasNet has adopted the cost of service methodology. Sections 8.4 to 8.6 of the Code relevantly state:

Total Revenue

- 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 (**Capital Base**);
- (b) depreciation of the Capital Base (**Depreciation**); and
- (c) the operating, maintenance and other non-capital costs incurred in providing all Services provided by the Covered Pipeline (**Non-Capital Costs**).

...

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

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

...

- 8.6 In view of the manner in which the Rate of Return, Capital Base, Depreciation Schedule and Non Capital Costs may be determined (in each case involving various discretions), it is possible that a range of values may be attributed to the Total Revenue described in section 8.4. In order to determine an appropriate value within this range the Relevant Regulator may have regard to any financial and operational performance indicators it considers relevant in order to determine the level of costs within the range of feasible outcomes under section 8.4 that is most consistent with the objectives contained in section 8.1.

Sections 8.30 and 8.31 of the Code state:

Rate of Return

- 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.

Section 8.1 of the Code sets out the following objectives that a reference tariff and reference tariff policy should be designed to achieve:

- (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.

More generally, the Commission is required, under section 2.46, to have regard to the factors described in section 2.24 (which are set out in chapter 1 of this Final Approval).

GasNet's amended revisions

As indicated in the table above, GasNet's amended revisions do not incorporate the following key WACC parameters required by Amendment 13:

- real risk free rate – GasNet set the risk free rate by reference to 10 year government bonds as opposed to the five year period adopted by the Commission; and
- asset beta, debt beta and equity beta – GasNet has used an asset beta of 0.55, debt beta of 0.14 and an equity beta of 1.16 as opposed to the values used by the Commission of 0.5, 0.18 and 1.0.¹⁵

This results in changes to the other WACC parameters in the above table.

The two aspects of Amendment 13 that GasNet has not incorporated in its amended revisions are considered in turn below.

Risk free rate

As stated in section 5.5.1 of the GasNet Final Decision, the risk free rate is an important parameter which is used to determine both the cost of debt and the cost of equity. In its Final Decision, the Commission decided to maintain its established approach of using bond rates corresponding with the length of the regulatory period. In its supplementary submission of 6 December 2002, GasNet states:

The Code provides little direct guidance as to the identification of the risk free rate and in particular, does not prescribe the use of either a 5 year or 10 year bond rate. The real issue for the Commission to determine is whether the 10 year bond rate adopted by GasNet is within the range of possible outcomes under the Code.

GasNet believes, on the basis of the submissions and expert reports previously provided, that a 10 year bond rate complies with the Code.

In addition, although the Commission has previously adopted a 5 year bond rate, most other regulators in Australia have applied a 10 year bond rate. This suggests that the range of possible outcomes in relation to the bond rate is at least between 5 and 10 years.¹⁶

However, as discussed in relation to Amendment 12, GasNet appears to have accepted the use of five year bonds to estimate inflation which in turn results in higher nominal capital asset pricing model (CAPM) values and tariffs.

¹⁵ The actual equity beta adopted by the Commission is 0.97. For the purpose of the Final Decision, this was rounded to 1.0. The relationship between the asset and equity betas implied in GasNet's revisions is not consistent with the approach of the Commission in the Final Decision.

¹⁶ GasNet supplementary submission, 6 December 2002, pp. 3-4.

Sections 8.30 and 8.2(e) of the Code:

- provide 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; and
- require forecasts to represent best estimates arrived at on a reasonable basis.

Section 5.5.1 of the Final Decision sets out the Commission's reasons for concluding that a rate of return arising from GasNet's use of the 10 year bond rate to estimate the risk free rate is not consistent with the Code requirements.

The appropriate tenure of Treasury bonds for determining a proxy for the risk free rate was examined by Dr Martin Lally in an expert report prepared for the Commission.¹⁷ The Final Decision reported, and accepted, Lally's conclusion that the tenure should match that of the regulatory period. Lally examined two possible scenarios to illustrate this result. First, Lally discussed the situation where the term structure of rates is not flat because of the existence of a liquidity premium. A liquidity premium represents a premium required to compensate holders of long-term bonds for uncertainty about future short term rates. Lally illustrated that in the presence of this premium, the use of 10 year rates when the regulatory period is five years will lead to excessive revenues, as the regulated firm is compensated for bearing interest rate risk that it does not face. The second scenario examined by Lally assumes that a non flat term structure is the outcome of market predictions about future spot rates, that is, the expectations hypothesis. Lally concludes that, under this scenario, the use of longer term rates is inappropriate as it may under or over compensate the regulated service provider. Under compensation may lead to a situation where rational investors would not fund efficient investment. Conversely, overcompensation may encourage inefficient investment.

Only by using rates corresponding to the regulatory period (for example, five year rates for five year regulatory periods) will the present value of future cash flows match the value of the initial investment. Lally considered that 'this is the basic test that any formula for setting output prices of regulated firms should satisfy'.¹⁸

As noted in the Final Decision, certain parties have put forward arguments disputing Lally's conclusions.¹⁹ These arguments and the Commission's conclusions are summarised below.

One argument is that long term rates should be used to reflect the long term nature of the investment. However, as illustrated by Lally, this may lead to over or under compensation of the regulated entity. The use of long term rates is only justified where the regulated return and tariff path were to be determined at the start of regulation and not changed over the life of the asset, which does not correspond to the regulatory approach applicable to GasNet.

¹⁷ M Lally, *Determining the risk free rate for regulated companies*, a paper for the ACCC, July 2002.

¹⁸ *ibid.*, p. 8.

¹⁹ This includes GasNet, Ernst & Young, Professor Officer and Henry Ergas.

A second argument is that the use of a 10 year rate is imperative in order to match the approach used to calculate the market risk premium (MRP), which commonly employs 10 year bonds. However, Lally demonstrated in his paper that this assertion is false, and that even if the risk free rate chosen to determine the MRP is the 10 year rate, this is unlikely to change the currently employed estimate of 6.0 per cent.²⁰

A third argument is that the use of a longer term rate is more appropriate given the possibility of asset stranding or abandonment. However, this argument fails to recognise that the risk free rate is simply used to determine the rate pertinent to the access arrangement period, not some other rate. If there is an issue of asset stranding or abandonment, this would normally be expected to be identified by the service provider and dealt with separately within the access arrangement (for example, through more rapid return of capital). Section 3.2.7 of the Final Decision noted that, in accordance with section 8.27 of the Code, the Commission has taken into account the uncertainty associated with potential application of the redundant capital policy in its determination of the rate of return and the life of the assets. The Commission stated:

In particular, the value of the beta for GasNet was determined in reference to the redundant capital policy. Also, the Commission has agreed in this Final Decision to reduce the economic life of the Longford to Pakenham pipeline.²¹

Fourth, it has been argued that the Commission should adopt the 10 year bond rate as a benchmark to be consistent with other regulatory authorities. As stated above, the Commission's view is that if GasNet's rate of return for the forthcoming five year access arrangement period is derived using 10 year bond rates to estimate the risk free rate, then that rate of return would not be commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service. This is consistent with other decisions made by the Commission.

In relation to other regulators' decisions, the Commission also notes that the risk free rate cannot be looked at in isolation to other components of the rate of return (and total revenue more generally). Section 8.6 of the Code recognises that the determination of the rate of return (as well as capital base, depreciation schedule and non-capital costs) involves discretion. The circumstances surrounding decisions made by other regulators do not necessarily apply to GasNet. In particular, other regulators have chosen to maintain consistency with their own prior decisions and have made decisions less favourable to the service provider on other components of the rate of return and total revenue calculations.²² GasNet has not sought a consistent application of other regulators' decisions.

In deciding that GasNet's reference tariffs must be derived from a rate of return calculated using a risk free rate based on five year and not 10 year bond rates, the Commission was guided by the objectives in section 8.1 and factors in section 2.24. In summary, the Commission considered that:

²⁰ ACCC, GasNet Final Decision, 13 November 2002, p. 86.

²¹ *ibid.*, p. 32.

²² For example, the ESC made decisions with respect to the Victorian gas distributors that are less generous than the Commission's decisions with respect to demand forecasts, capital raising costs, the accommodation of asymmetric risks and the pass through mechanism.

- the use of 10 year rather than five year bond rates with a five year access arrangement period would, in the case of GasNet, be inconsistent with the objectives in section 8.1. As noted, the adoption of rates linked to the regulatory period will ensure that the net present value of future cash flows is equal to the value of the initial investment.²³ Such a result replicates the expected outcome of a competitive market (section 8.1(b)) and should therefore encourage efficient behaviour and appropriate levels of investment (sections 8.1(d) and (e)). The use of 10 year rates would not be expected to generate outcomes that replicate those expected from competitive markets (with the resulting tariff generally being higher than the economically efficient level given the current differential between five and 10 year bonds). Tariffs at this level might be expected to distort long run investment decisions in the pipeline sector and in up and down stream industries. For example, high charges may inhibit investment in upstream and downstream facilities; and
- the factors specified in section 2.24 also support the use of five year rather than 10 year bond rates. Through generating outcomes consistent with a competitive market and providing appropriate signals for efficient investment, the use of rates linked to the regulatory period should encourage the service provider's long term legitimate business interests (section 2.24(a)), the economically efficient operation of the covered pipeline (section 2.24(d)) and the public interest, including the public interest in having competitive markets (section 2.24(e)). By promoting efficient pricing of investment and competitive market outcomes, this approach should also serve the long-term interests of users and prospective users (section 2.24(f)).

In its supplementary submission of 6 December 2002, GasNet raised an additional consideration. GasNet stated:

the Code requires the Commission to assess not only compliance with individual criteria in the Code, but also the overall impact of the revisions, particularly with reference to section 2.24 of the Code. The Commission has not, to date, done this.

GasNet's revisions comply with Code

GasNet submits that, when examined in the context of the likely range of outcomes that satisfy the Reference Tariff Principles, its proposed revisions clearly fall within this range and therefore comply with the Reference Tariff Principles.

This conclusion is supported by an overall analysis of the impact of GasNet's proposals.

- (a) The Total Revenue proposed by GasNet differs from the Total Revenue proposed by the Commission by approximately 5.8%. Assuming the Commission's proposal is within the permissible range of the Reference Tariff Principles, then it is likely that GasNet's proposal is also within that range (especially given the imprecision of the Reference Tariff Principles).
- (b) Although it is only a 5.8% difference (in Total Revenue), GasNet's legitimate business interests are adversely (and disproportionately) affected by the Commission's proposals. GasNet has significant fixed costs in operations, depreciation and interest payments. The revenue model adopted by the Commission implies an annual profit of approximately \$22 million for GasNet's regulated business. In this context a 5.8% change in Total Revenue translates to a 20% change in annual profit.

²³ ACCC, GasNet Final Decision, 13 November 2002, p. 88.

- (c) In contrast, a 5.8% change in Total Revenue translates to a change in the cost of delivered gas of:
- (i) for industrial customers, approximately 0.5% and
 - (ii) for domestic customers approximately 0.24% (or \$1.20 per household per annum).²⁴

In summary, GasNet submits that its amended revisions should be approved as the difference in total revenue is only 5.8 per cent which disproportionately affects GasNet as opposed to users.

In assessing a service provider's proposed rate of return (on which it determines its total revenue and thus reference tariffs), the materiality of the difference and the relevant impact on the service provider may be relevant. In this case, the Commission has considered GasNet's supplementary submission but is not satisfied that it outweighs the competing considerations set out above. In particular, the higher risk free rate proxy associated with the use of 10 year bonds would result in unnecessarily high charges being paid by users and prospective users. There are no broader policy objectives that would be served through the adoption of 10 year rates.²⁵

Accordingly, the Commission considers that GasNet's use of a 10 year rate to determine the risk free rate results in:

- a rate of return that is not, as required by section 8.30, commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service;
- reference tariffs that are not calculated using forecasts representing best estimates arrived at on a reasonable basis (as required by section 8.2(e)); and
- therefore, reference tariffs that do not comply with section 8 of the Code (as required by sections 2.46 and 3.4).

In order to comply with sections 2.46, 3.4, 8.2(a), 8.2(e), 8.4, 8.30 and 8.31 of the Code, the five year rate must be used.

Consequently, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 13. This is reflected in the amended revisions drafted and approved by the Commission (see chapter 3 of this Final Approval).

Beta

As stated in section 5.5.7 of the GasNet Final Decision, systematic risk is accommodated in the CAPM by the equity beta. This indicates the riskiness of one asset or project relative to the whole market (usually represented by the stock market).

²⁴ GasNet supplementary submission, 6 December 2002, pp. 2-3.

²⁵ The fact that a given quantum of revenues/charges is spread over one party or many does not in itself indicate anything about the comparative costs and benefits. For example, higher GasNet charges could result in marginal end-users no longer being able to afford the use of natural gas. In addition, the Victorian retail businesses may have difficulty in passing on or absorbing high GasNet charges.

An equity beta greater than one indicates that the asset or project has returns that are expected to have more variability than the market average. To compare the risk associated with a number of businesses independent of their financial structure (gearing), equity betas are ‘de-levered’ to produce asset betas.

The Commission’s approach is to determine an asset beta that is appropriate for a business. An equity beta is then calculated from the Monkhouse formula. As a result, with an asset beta of 0.5 applied to the formula, the resulting equity beta was 0.973. The equity beta as reported in the Final Decision was rounded to one decimal place (1.0).²⁶

The following table sets out the alternative asset and equity betas required by the Commission and proposed by GasNet:

Table 2.2: Asset and equity beta comparison

		GasNet proposed revisions	GasNet submission	ACCC Final Decision	GasNet amended revisions
		March 2002	September 2002	November 2002	January 2003
asset beta	β_a	0.60	na	0.50	0.55
equity beta	β_e	1.4	1.2	0.973	1.16

Source: GasNet access arrangement information, 27 March 2002, p. 6; GasNet submission, 20 September 2002, p. 18; ACCC, Final Decision, p. 112; GasNet amended revised access arrangement information, 6 January 2003, p. 5.

GasNet disputes the equity beta required by Amendment 13. In its supplementary submission of 6 December 2002, GasNet states:

As with the bond period, there is clearly a range of possible outcomes under the Code in relation to the equity beta. For the purposes of preparing its latest revisions, GasNet has adopted an equity beta of 1.16. This figure is consistent with the most recent decision of the Commission on the Moomba-Adelaide pipeline and is at the lower end of the range used by the Commission in previous decisions. GasNet considers that its proposal is clearly within the range of possible outcomes permitted by the Code.²⁷

As discussed above in relation to the risk free rate, sections 8.30 and 8.2(e) of the Code:

- provide 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; and
- require forecasts to represent best estimates arrived at on a reasonable basis.

Section 5.5.7 of the GasNet Final Decision sets out the Commission’s reasons for concluding that the rate of return arising from GasNet’s use of an equity beta of 1.4 in its proposed revisions (or 1.2 as suggested in its submission in response to the Draft Decision), rather than 1.0, is not consistent with the Code requirements.

²⁶ ACCC, GasNet Final Decision, 13 November 2002, pp. 104-105 and 111.

²⁷ GasNet supplementary submission, 6 December 2002, p. 4.

In summary, the Commission considered a range of views including recent market evidence which suggests an equity beta of 0.7. The Commission concluded that:

- GasNet's proposed equity beta of 1.4 was not supported by current market information,²⁸ particularly as the 'distinctive features' of the GasNet system raised to support the beta estimate are not relevant to the systematic risk of the business.²⁹ Accordingly, GasNet's proposed value would result in a rate of return that would not satisfy the Code's requirements; and
- a change from GasNet's current equity beta of 1.2 to 0.7 was likely to be difficult for GasNet. Further, complete reliance on market evidence may be premature.³⁰ After taking into account the objectives of section 8.1 (in particular sections 8.1(a) and 8.1(d)) and balancing GasNet's legitimate business interests (section 2.24(a)) and the interests of users and prospective users (section 2.24(f)), the Commission concluded on balance that an asset beta of 0.5 and an equity beta of 1.0 would result in a rate of return permitted by section 8.30 of the Code.

The Commission has considered the equity beta value of 1.16 adopted by GasNet in its amended revisions, and GasNet's supplementary submission concerning the materiality of the difference and relative impact on GasNet (discussed above in relation to the risk free rate of return). The most recent estimates available from the Australian Graduate School of Management (AGSM) in relation Australian regulated entities confirm that the current evidence suggests that the equity beta for Australian gas transmission businesses is likely to be significantly less than 1.0.³¹

The Commission has also taken into consideration advice provided by the Allen Consulting Group (ACG) regarding the degree of reliance that could be placed on its report *Empirical Evidence on Proxy Beta Values for Gas Transmission Activities* (the Allen Report) which the Commission took into account in its Final Decision when assessing the reasonableness of GasNet's proposed beta value.³² ACG advised:

It would be consistent with the advice in the Allen Report for the Commission to select a proxy beta value that was a weighted average of that implied by current Australian market evidence (0.7) and the proxy betas adopted in other decisions by Australian energy regulators (including the Commission's previous decisions), with the weights a matter for the Commission's judgement. It would be incorrect to interpret the Allen Report as advising the Commission not to place any weight on the empirical evidence on the proxy beta for regulated Australian gas transmission activities that was presented in that report.

The Allen Report also noted that the quality of the market evidence available for the proxy beta for regulated Australian gas transmission activities was likely to increase in the future and that, as a result, it should be possible to place greater reliance (weight) on empirical evidence on beta values over time. ... Assuming the Commission continued to update the empirical information presented in the Allen Report to take account of this additional information, it

²⁸ ACCC, GasNet Final Decision, 13 November 2002, p. 110.

²⁹ *ibid.*, p. 103.

³⁰ *ibid.*, p. 104.

³¹ AGL (equity beta of 0.09), United Energy (0.18), AlintaGas (0.13), Envestra (0.31), Australian Pipeline Trust (0.25). AGSM, Risk Management Service, September 2002.

³² See for example, ACCC, GasNet Final Decision, 13 November 2002, pp. 108-111.

would be consistent with the advice in the Allen Report for the Commission to place greater weight on that updated information over time.³³

Consequently:

- the Commission is not satisfied that an equity beta of 1.16 would result in a rate of return that complies with the Code; and
- therefore, the Commission considers that GasNet's amended revisions do not incorporate or otherwise address Amendment 13.

For the purpose of drafting and approving the amended revisions (see chapter 3 of this Final Approval), the Commission considers that it is not appropriate to use an equity beta less than that required by Amendment 13 in the Final Decision.

This is consistent with the approach that the Commission took in relation to the Final Approval for the Moomba to Adelaide Pipeline System (MAPS) (dated 31 July 2002). As discussed in the Final Decision, the MAPS Final Approval confirmed the Commission's MAPS Final Decision (12 September 2001) not to approve Epic Energy's proposed access arrangement. The Commission stated in its MAPS Final Approval:

The Commission's *Final Decision* for the MAPS determined a proxy equity beta of no more than 1.16. As stated above, the Allen Report indicates that a proxy equity beta of around 1 errs in favour of the regulated entity. The Commission does not consider it appropriate to lower its assessment of the maximum proxy beta for the MAPS at this stage of the assessment process. However, it should be noted that if the Commission were to divert from the maximum proxy beta allowed in its *Final Decision* for the MAPS, it would be downwards in light of current market evidence, and not in the direction sought by Epic.³⁴

The Commission described the asset beta of 0.5 and the equity beta of 1.16 for MAPS as being 'extremely generous' but concluded that it would be inappropriate to revise the parameter value at that stage of the approval process. However, if any adjustment were to be undertaken, it would be downwards.³⁵

The Commission also notes a number of regulatory decisions have been made subsequent to its GasNet Final Decision.³⁶ In particular, the Commission's decisions (in relation to the Amadeus Basin to Darwin Pipeline, ElectraNet and SPI PowerNet) have included an equity beta of 1.0.³⁷ The ESC has used this parameter value in its Final Decision (October 2002) for the Victorian gas distribution businesses owned by

³³ ACG letter to the Commission, 16 January 2003. This letter clarifies previous advice provided to the Commission.

³⁴ ACCC, *Final Approval: access arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System*, 31 July 2002, p. 22.

³⁵ *ibid.*, p. 16.

³⁶ Betas relating to previous decisions are noted in ACCC, *Final Decision: access arrangement proposed by Epic Energy South Australia Pty Ltd for the Moomba to Adelaide Pipeline System*, 12 September 2001, pp. 51-52.

³⁷ ACCC, *Final Decision: access arrangement proposed by NT Gas Pty Ltd for the Amadeus Basin to Darwin Pipeline*, 4 December 2002, p. 93; ACCC, *Decision: South Australian transmission network revenue cap, 2003-2007/8*, 11 December 2002, p. 37; ACCC, *Decision: Victorian transmission network revenue caps, 2003-2008*, 11 December 2002, p. 26.

Multinet, TXU and Envestra.³⁸ The Commission considers that the Victorian distributors share much the same risks as GasNet.

Accordingly, the reference tariffs in the amended revisions drafted and approved by the Commission are based on a rate of return calculated using the equity beta specified in Amendment 13 rather than a lower equity beta of 0.7. In the event that the equity beta is reviewed in the future, any adjustment to the equity beta is more likely to be downwards.

Conclusion

As GasNet, in calculating its rate of return, has used a 10 year bond rate to determine the risk free rate and an equity beta of 1.16, the Commission is not satisfied that the reference tariffs in GasNet's amended revisions comply, as required by sections 2.46 and 3.4 of the Code, with the reference tariff principles in section 8 (in particular, sections 8.2(a), 8.2(e), 8.4, 8.30 and 8.31). In reaching this conclusion, the Commission has had regard to the objectives in section 8.1 and the factors in section 2.24. Accordingly, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 13. The amended revisions drafted and approved by the Commission incorporate Amendment 13.

2.1.5 Depreciation

Amendment 30

Amendment required

GasNet must amend clause 3.3 of the revised access arrangement information regarding depreciation to reflect the Final Decision. These changes must also be included in the revenue model used to determine reference tariffs.

GasNet's response

Clause 3.3 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the depreciation schedule used in GasNet's revenue model to calculate the reference tariffs in GasNet's amended revisions. The economic lives of assets set out in Tables 3-2 and 3-3 are consistent with the Commission's Final Decision. The depreciation allowances for the forthcoming access arrangement period are set out in Table 3-4 of the revised access arrangement information.

Commission's assessment

Section 6.4.7 of the Final Decision did not require any amendments to the economic life estimates used by GasNet. However, as discussed in the Final Decision, the determination of depreciation (for the purpose of determining total revenue and thus reference tariffs) is also dependant on the following amendments specified in the Final Decision:

³⁸ ESC, *Final Decision: Review of gas access arrangements*, 3 October 2002, p. 138. The ESC confirmed the use of an equity beta of 1.0 in its subsequent Final Approval document for these service providers.

- Amendment 11 (Southwest Pipeline);
- Amendment 12 (inflation);
- Amendment 13 (rate of return); and
- Amendments 28, 29 and 31 (forecast capital expenditure).

As discussed in sections 2.1.2 and 2.1.4 of this Final Approval, GasNet's amended revisions do not incorporate Amendments 12, 13 and 29. Consequently, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 30.

The amended revisions drafted and approved by the Commission set out reference tariffs calculated using a depreciation schedule determined in accordance with Amendment 30. The depreciation allowances for the forthcoming access arrangement period are included in the revised access arrangement information supporting the revised access arrangement approved by the Commission.

2.1.6 Non-capital costs – operations and maintenance expenditure

Amendment 14

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information to exclude litigation costs from operations and maintenance cost forecasts. In addition, litigation costs must not be incorporated in the pass through mechanism.

GasNet's response

Clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the non-capital costs recovered by the reference tariffs in GasNet's amended revisions. GasNet has removed an allowance for Longford litigation expenses from operations and maintenance cost forecasts and has not incorporated Longford litigation expenses as an event in the pass through mechanism.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 14.

Amendment 15

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information so that an inflation estimate of 2.16 per cent is used when calculating all operations and maintenance cost forecasts in the second access arrangement period.

GasNet's response

The forecast operations and maintenance costs (which are included in GasNet's non-capital costs and recovered by the reference tariffs in GasNet's amended revisions) are calculated using an inflation estimate of 2.16 per cent. This inflation rate has been applied to the forecast costs for each year of the access arrangement period.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 15.

Amendment 16

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information to include an allowance of \$22 622 in 2003 and \$45 244 in 2004-2007 (2003 dollar terms) in operations and maintenance cost forecasts associated with additional gas chromatographs.

GasNet's response

The forecast operations and maintenance costs (which are included in GasNet's non-capital costs and recovered by the reference tariffs in GasNet's amended revisions) include an allowance of \$22 622 in 2003 and \$45 244 in 2004-2007 (2003 dollars) for additional gas chromatographs. This is reflected in Tables 3-4A and 3-5 of clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 16.

Amendment 17

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information so that operations and maintenance cost benchmarks for the second access arrangement period only include 88.23 per cent of total general and administrative cost forecasts.

GasNet's response

GasNet has included 88.18 per cent of its total general and administrative costs in the non-capital costs recovered by the reference tariffs in its amended revisions.

Commission's assessment

The 88.23 per cent allocation required in the Final Decision was derived through the addition of two compressors (Bulla Park and Young) to the unregulated assets in GasNet's revenue model. As requested, GasNet has added these compressors to the

unregulated assets, but has also amended total transmission and unregulated assets. These changes arise from minor errors corrected in GasNet's model subsequent to the release of the Final Decision. This results in an allocation of 88.18 per cent of general and administrative costs to GasNet's regulated assets. The Commission considers that GasNet's approach is methodologically consistent with the Commission's reason for requiring Amendment 17 (which was to ensure that only the costs associated with GasNet's regulated activities were included in GasNet's access arrangement). Accordingly, the Commission is satisfied that GasNet's amended revisions address Amendment 17.

Amendment 18

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information to only incorporate a total of \$1 730 634 (in 2003 dollars) per year for insurance in 2003 operations and maintenance cost forecasts.

GasNet's response

The forecast operations and maintenance costs (which are included in GasNet's non-capital costs and recovered by the reference tariffs in GasNet's amended revisions) include an allowance of \$1 730 634 (in 2003 dollars) per year for insurance. This is reflected in Tables 3-4A and 3-5 of clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 18.

Amendment 19

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information to incorporate regulatory review costs of \$1 051 938 in 2003 dollar terms. GasNet must not incorporate forecast regulatory review costs for 2006 and 2007 in benchmark revenues.

GasNet's response

The non-capital costs recovered by the reference tariffs in GasNet's amended revisions include an allowance of \$1 051 938 (2003 dollars) for regulatory review costs. GasNet has not included any allowance for the costs associated with the 2008-2012 access arrangement period in its forecast non-capital costs for 2006 and 2007. This is reflected in clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 19.

2.1.7 Non-capital costs – capital raising costs

Amendment 20

Amendment required

GasNet must amend section 3 of its revised access arrangement information to include an allowance for equity raising costs of 0.224 per cent of regulated equity, to be recovered as an annual non-capital cost cash flow. It must also amend its revised access arrangement to exclude an allowance for debt raising costs in non-capital expenditure cash flows and add 12.5 basis points to the debt margin for these costs.

GasNet's response

Table 3-4A in clause 3.5 of the access arrangement information submitted by GasNet on 6 January 2003 sets out the non-capital costs recovered by the reference tariffs in GasNet's amended revisions. Table 3-4A includes an allowance of \$0.44 million (nominal) each year for capital raising costs. Relevantly:

- GasNet has included, for equity raising expenses, an annual allowance of 0.224 per cent of regulated equity to be recovered as an annual cash flow; and
- GasNet has removed an allowance for debt raising costs.

Table 3-1 in clause 3.2 of the access arrangement information sets out the parameters used by GasNet to calculate the rate of return or WACC (which in turn is used to derive the reference tariffs in GasNet's amended revisions). Section 2.1.4 of this Final Approval, in relation to Amendment 13, compares the WACC parameters used by GasNet with the parameters specified in the Final Decision. The following table sets out the parameters concerning the debt margin used to determine the cost of debt:

Table 2.3: Debt raising costs and debt margin

	GasNet proposed revisions	GasNet submission	ACCC Final Decision	GasNet amended revisions
	March 2002	September 2002	November 2002	January 2002
debt raising costs	\$2.0 million ^a	0.300	0.125	0.250
debt margin (DM)	1.2	na ^b	1.59	1.71

Notes: (a) This annual allowance has been calculated by the Commission to be equivalent to 0.674 per cent.

(b) GasNet did not comment on the debt margin in its September 2002 submission.

GasNet has added 25 basis points to the debt margin, rather than 12.5 basis points, bringing the total debt margin to 1.71 per cent in its January 2003 amended revisions.

Commission's assessment

GasNet has:

- incorporated the first and second elements of Amendment 20 concerning equity raising costs and the recovery of debt raising costs through the WACC; and
- not incorporated the third element of Amendment 20 requiring 12.5 basis points to be added to the debt margin.

Code provisions

Under section 2.46 of the Code, the Commission may only approve GasNet's proposed revisions if it is satisfied that the revised access arrangement would contain the elements and satisfy the principles set out in sections 3.1 to 3.20. Sections 3.4 and 3.5 require GasNet's reference tariffs and reference tariff policy to comply with the reference tariff principles described in section 8. Sections 8.2(a) and (e) (which are set out in section 2.1.4 of this Final Approval) provide that:

- total revenue should be established consistently with the principles and according to one of the methodologies contained in section 8; and
- forecasts required in setting the reference tariff must represent best estimates arrived at on a reasonable basis.

Sections 8.4 to 8.7 of the Code (set out in section 2.1.4 of this Final Approval) concern the methodologies for calculating total revenue. Under the cost of service methodology, total revenue is equal to the cost of providing all services with this cost to be calculated on the basis of:

- a rate of return on the capital base;
- depreciation of the capital base; and
- non-capital costs.

Sections 8.30 and 8.31 of the Code (set out in section 2.1.4 of this Final Approval) concern the determination of the rate of return. In particular, section 8.30 states that the return should be:

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).

Sections 8.36 and 8.37 of the Code (set out in relation to Amendment 26 in section 2.1.8 of this Final Approval) concern non-capital costs. In summary, a reference tariff may provide for the recovery of all non-capital costs (being costs incurred in the delivery of the reference service) 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.

Section 8.1 (set out in section 2.1.4 of this Final Approval) prescribes objectives that a reference tariff and reference tariff policy should be designed to achieve. More

generally, the Commission is required, under section 2.46, to have regard to the factors described in section 2.24 (set out in chapter 1 of this Final Approval).

GasNet's submission

In its supplementary submission of 6 December 2002, GasNet states:

The Commission accepted in its Final Decision that there were a range of possible outcomes in respect [of] establishing benchmark debt raising costs. GasNet's proposed allowance for transaction costs has been calculated by reference to the actual debt raising costs it has incurred. GasNet is of the view that these costs represent the prudent and efficient cost incurred in raising debt for a company in GasNet's circumstances.³⁹

Commission's views

Section 6.2.1 of the GasNet Final Decision sets out the Commission's reasons for concluding that a debt raising margin of 30 basis points is not consistent with the Code requirements, and for requiring a debt raising margin of 12.5 basis points. The determination of the debt margin is also discussed in section 5.5.2 of the Final Decision.

In the GasNet Final Decision, the Commission noted that there is little precedent in Australian regulatory decisions for including a specific allowance for debt raising costs in the calculation of benchmark revenues and that further investigation of this issue is warranted. No explicit allowance was made for capital raising costs in the Commission's 1998 Final Decision or in its subsequent approval documents for other access arrangements. Similarly, other Australian regulators have generally not provided an explicit allowance for capital raising costs. One exception is the ESC which allowed an amount of 5 basis points for debt raising costs for the three Victorian gas distribution businesses.⁴⁰ Another is the Queensland Competition Authority (QCA) which accepted an allowance for non-margin debt related costs based on actual costs incurred by Envestra.⁴¹

In the GasNet Final Decision, the Commission concluded that it is reasonable to provide GasNet with an allowance for debt raising costs, as such costs would be incurred by a prudent service provider when raising debt.

The Commission considered a number of potential values for an allowance for debt raising costs. GasNet originally proposed \$2 million per year, which is equivalent to 67.4 basis points (given an opening regulated asset base of \$494.2 million in 2003 and a benchmark gearing ratio of 60:40). After considering available information, the Commission proposed in its Draft Decision that an 8 basis points margin for prudent debt raising costs be added to the debt margin facing GasNet. In response, GasNet proposed an allowance of 30 basis points. After further analysis, the Commission

³⁹ GasNet supplementary submission, 6 December 2002, p. 4.

⁴⁰ ESC, *Final Decision: review of gas access arrangements*, 3 October 2002, p. 362. The ESC confirmed the use of this allowance for debt raising costs in its subsequent Final Approval documents for each of these service providers.

⁴¹ QCA, *Final Decision: proposed access arrangements for gas distribution networks: Allgas Energy Limited and Envestra Limited*, October 2001, p. 259. The QCA confirmed this decision in its *Final Approval: access arrangements for gas distribution networks: Allgas Energy Limited and Envestra Limited*, December 2001.

concluded that GasNet's proposed allowance was substantially higher than would be expected of a benchmark entity and determined that an appropriate allowance would be 12.5 basis points. GasNet has included an allowance of 25 basis points in its amended revisions.

In the Final Decision, a key issue was whether the allowance should be determined by the debt raising costs actually incurred by GasNet. The Commission considered that GasNet's costs should be tested against the reasonable establishment costs facing a benchmark transmission company.

The Commission notes that:

- under section 8.37 of the Code, reference tariffs may recover all non-capital costs except for 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'. Section 8.30 also provides that the rate of return should be commensurate with prevailing conditions in the market and the risks involved in delivering the reference service;
- the recovery of actual costs is consistent with the service provider's legitimate business interests (section 2.24(a)). However, the use of benchmarks to test debt financing costs is consistent with the objectives in section 8.1 (in particular, the recovery of efficient costs,⁴² replicating the outcome of a competitive market, and providing an incentive to a service provider to reduce costs); and
- the approach is consistent with the establishment of the debt margin and other CAPM parameters for the purpose of section 8.30 of the Code. Such consistency is important given the interrelationships between these variables.

One example of the importance of these interrelationships is the case of credit wrapping. If the service provider credit wraps its debt (effectively giving it a AAA credit rating instead of, for example, a rating of BBB), then it will incur a lower debt margin than with non-credit wrapped debt, while actual debt raising costs will be higher due to fees required to be paid to a credit monoline for the service. If the regulator uses benchmarks to determine the debt margin and actuals to calculate debt raising costs, then the service provider faces a situation of a high debt margin allowance and a high debt-financing cost allowance. As noted in the Draft Decision, such 'cherry picking' is not appropriate.⁴³ Under this credit wrapping scenario, users would face debt raising costs in excess of those that would be incurred raising conventional debt, but do not benefit from the payment.

Consequently, the use of actual costs may generate a situation that is not in the interests of users and prospective users (section 2.24(f) of the Code). Further, under this scenario there exists perverse incentives for GasNet to credit wrap debt, even if the costs of doing so outweigh the benefits. Thus, the use of actual costs may be contrary to the efficient operation of the pipeline (section 2.24(d)). The use of benchmarks

⁴² In relation to the interpretation of section 8.1(a) of the Code, see the Epic decision at [136]-[142].

⁴³ ACCC, GasNet Draft Decision 14 August 2002, pp. 87-88. See also, ACCC, GasNet Final Decision, 13 November 2002, p. 143.

allows the service provider to make its own decisions in order to achieve least cost financing options.

In its submission of 20 September 2002, GasNet recognised the relationship between the debt margin and the cost of debt, choosing to evaluate these topics effectively as one in its assessment. To calculate one of these parameters using benchmarks and the other using actual costs is incompatible with such an approach.

In its supplementary submission of 6 December 2002, GasNet stated that its proposed allowance of 25 basis points for debt raising costs represents the prudent and efficient cost incurred in raising debt for a company in GasNet's circumstances.

In the Final Decision, the Commission noted that the range of potential values considered for a debt raising costs allowance reflects the limited extent of regulatory analysis to date on the topic. However, the Commission concluded that an allowance of 12.5 basis points, rather than the 30 basis points proposed by GasNet, represents the prudent and efficient cost.

As discussed in the Final Decision, this benchmark is primarily sourced from Westpac Institutional Bank, and represents estimated costs associated with a capital market debt raising. This allowance incorporates a range of debt raising expenses that would be incurred by a prudent service provider, namely participation fees, agency fees, arranger fees, credit rating fees, a dealer swap margin, legal fees and placement fees. The Commission noted that transaction costs associated with bank issued debt may be higher than capital market debt. However, in the absence of comprehensive data on bank debt and given that the data provided by Westpac is at the high end of the range of capital market debt costs, the Commission concluded that the appropriate allowance was 12.5 basis points. GasNet did not identify any reason why a prudent and efficient company in GasNet's particular circumstances would face debt raising costs higher than this benchmark.⁴⁴

In its supplementary submission of 6 December 2002, GasNet raised an additional consideration, namely that the amended revisions should be approved as the difference in total revenue is only 5.8 per cent and this disproportionately affects GasNet as opposed to users. This argument is set out in full in relation to Amendment 13 in section 2.1.4 of this Final Approval.

The Commission considers that GasNet's proposed allowance of 25 basis points for debt raising costs would not be incurred by a prudent and efficient service provider. Even if the Code permits reference tariffs to be calculated using actual debt raising costs where those costs would not be incurred by a prudent and efficient service provider, the Commission is not satisfied that the additional consideration raised by GasNet outweighs the competing considerations set out above. In particular, the use of the benchmark is consistent with sections 8.30 and 8.37 of the Code, the objectives in section 8.1 (concerning the recovery of efficient costs, replicating the outcome of a competitive market, and providing an incentive to a service provider to reduce costs)

⁴⁴ The benchmark is based on a debt:equity ratio of 60:40 which is broadly consistent with GasNet's ratio. GasNet proposed, and the Commission accepted, the use of this ratio for the purposes of this access arrangement.

and sections 8.2(d) and (f) (concerning the efficient operation of the pipeline and the interests of users and prospective users).

Accordingly, the Commission considers that:

- GasNet's addition of 25 basis points to the debt margin for debt raising costs results in reference tariffs that do not, as required by sections 2.46 and 3.4, comply with the reference tariff principles described in section 8 of the Code; and
- the addition of 12.5 basis points to the debt margin for debt raising costs would result in reference tariffs that comply with section 8.

Consequently, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 20. This is reflected in the amended revisions drafted and approved by the Commission (see chapter 3 of this Final Approval).

2.1.8 Non-capital costs – asymmetric risk allowance

Amendment 25

Amendment required

GasNet must include in clause 4, reference tariff policy, of its revised access arrangement:

- explicit confirmation that the business will self-insure;
- details that clearly specify the self-insured risks consistent with the Final Decision; and
- explicit confirmation that future actual costs relating to these identified events will not be included in future regulatory cash flows.

If GasNet does not accept these inclusions in clause 4, then GasNet must remove all allowances for asymmetric risk from its revenue calculations.

GasNet's response

GasNet has inserted clause 4.12 in its reference tariff policy. Clause 4.12 states:

Self-insurance

- (a) GasNet will self insure in respect of the following risks for the Second Access Arrangement Period:
 - (i) extortion and bomb threats; and
 - (ii) counter party and insurer credit risk.
- (b) Any losses incurred by GasNet in respect of the risks identified in paragraph (a) will not be included in calculating Reference Tariffs.

Commission's assessment

Under section 8.37 of the Code, a reference tariff may provide for the recovery of all non-capital costs (being costs incurred in the delivery of the reference service) 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.

In section 6.2.4 of its Final Decision, the Commission stated:

While GasNet has proposed to include an asymmetric risk allowance in the cash flow, it has not provided explicit confirmation that the business will self-insure for certain identified risks and that future actual costs relating to these events will not be included in future regulatory cash flows. The Commission generally requires that this assurance be provided by a resolution from the company's board of directors. However, in light of the amount of asymmetric risk allowance the Commission accepts for GasNet, the Commission will accept confirmation from the company in this instance. A resolution from the board would be required for a larger amount.

The Commission is satisfied that clause 4.12(b) of GasNet's amended revisions incorporates the third dot point in Amendment 25 (which requires explicit confirmation that future actual costs relating to the identified events will not be included in future regulatory cash flows).

The first and second dot points of Amendment 25 (which require the reference tariff policy to confirm that the business will self-insure in relation to clearly specified risks) were drafted on the basis of Amendment 26 (which requires GasNet to reduce its total annual allowance for asymmetric risks from \$752,000 to \$22,000 (in 2003 dollars)).

GasNet's amended revisions have not incorporated Amendment 26. (GasNet proposes an annual allowance of \$509,000.) However, in light of the fact that the Commission has not approved GasNet's amended revisions in response to Amendment 26, the Commission is satisfied that GasNet's amended revisions address Amendment 25.

Amendment 26

Amendment required

GasNet must amend clause 3.5 of its revised access arrangement information so that the total annual allowance for asymmetric risks is \$22 000 (in 2003 dollars) for each year of the access arrangement period.

GasNet's response

Clause 3.5 of the access arrangement information submitted by GasNet on 6 January 2003 sets out the non-capital costs recovered by the reference tariffs in GasNet's amended revisions. Table 3-9 in clause 3.5 sets out GasNet's allowance for asymmetric risk. The following table compares GasNet's allowance with the allowance specified by the Commission in Amendment 26:

Table 2.4: Asymmetric risk allowance comparison

	Annual asymmetric risk allowance (2003 dollars)			
	GasNet proposed revisions	GasNet submission	ACCC Final Decision	GasNet amended revisions
	March 2002	September 2002	November 2002	January 2003
Property related risks ^a	20 000	10 000	10 000	10 000
Deductibles in current insurance	140 000	Amount removed from non-capital costs and included in pass through mechanism	Amendments 3 and 26 required the amount to be removed from non-capital costs and included in the pass through mechanism	Amount removed from non-capital costs and included in the pass through mechanism
Credit risk – default by an insurer	2 000	2 000	2 000	12 000
Credit risk – default by counter parties	250 000	250 000	10 000	250 000
Terrorist risk	65 000	65 000	0	65 000
Risk of stranding	75 000	na	0	na
Other – uplift liability	65 000	65-100 000	0	65 000
Other – partial stranding	28 000	na	0	na
Other – key person risk	72 000	72 000	0	72 000
Other – employment practices	35 000	35 000	0	35 000
Total	752 000	499-534 000	22 000	509 000

Note: (a) This includes bomb threats, extortion and pipeline corrosion.
na: no further comment from GasNet on this item.

Source: GasNet access arrangement information, 27 March 2002, p. 11; GasNet submission, 20 September 2002, p. 27; ACCC, GasNet Final Decision, 13 November 2002, pp. 164-174; GasNet amended access arrangement information, 6 January 2003, p. 10.

Commission's assessment

Section 6.2.4 of the GasNet Final Decision sets out the Commission's reasons for concluding that GasNet's proposed annual asymmetric risk allowance of \$752 000 did not comply with the Code and for requiring non-capital costs of \$22 000. As indicated in the table above, GasNet's amended revisions do not incorporate the following asymmetric risk allowances required by Amendment 26 (of zero value other than for a reduced amount for credit risk):

- credit risk (default by insurers and counter parties);
- terrorist risk;
- uplift liability;

- key person risk; and
- employment practices.

The only allowance incorporated by GasNet was for property related risk.⁴⁵ As a consequence, GasNet's reference tariffs are calculated using an allowance of \$509 000 in contrast to the allowance of \$22 000 specified by the Commission. In its supplementary submission provided on 6 December 2002, GasNet states:

The reference tariff principles set out in section 8 of the Code allow a service provider to recover the efficient costs of delivering the reference service. GasNet considers that the allowance for asymmetric risks included in its Access Arrangement is required in order to reflect the true efficient cost of delivery the reference service.

Each item in dispute is discussed below.

Code provisions

The relevant Code provisions are discussed in relation to Amendment 20 in section 2.1.7 of this Final Approval. In summary:

- Sections 2.46 and 3.4 of the Code provide, in effect, that the Commission may only approve GasNet's proposed revisions if it is satisfied that the reference tariffs comply with the reference tariff principles described in section 8.
- Section 8.2(a) provides that total revenue should be established consistently with the principles and according to one of the methodologies contained in section 8. Sections 8.4 to 8.7 concern the methodologies for calculating total revenue including the cost of service methodology (under which total revenue is calculated on the basis of a rate of return on capital, depreciation and non-capital costs).
- Section 8.2(e) requires the Commission to be satisfied that any forecasts required in setting the reference tariff represent best estimates arrived at on a reasonable basis.

Sections 8.36 and 8.37, which concern non-capital costs, state:

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.

As discussed in relation to Amendment 20, section 8.1 sets out objectives that a reference tariff and reference tariff policy should be designed to achieve. More generally, the Commission is required, under section 2.46, to have regard to the factors in section 2.24.

⁴⁵ In addition, GasNet incorporated Amendment 3 which required the proposed allowance (of \$140 000) for deductibles for current insurance policies to be included in the pass through mechanism.

Credit risk – insurers

As discussed in the Final Decision, in respect of insurers' credit risk, GasNet is seeking to self-insure the loss of premium paid relating to the unexpired period of cover upon an insurer being unable to honour an insurance policy.⁴⁶

In the Final Decision, the Commission accepted the \$2 000 allowance proposed by GasNet for insurers' credit risk (being the annual premium estimated by Trowbridge Consulting for this type of event). GasNet has not provided any explanation as to why it now proposes an additional \$10 000.

Accordingly, the Commission is not satisfied that the \$12 000 allowance proposed by GasNet (as opposed to \$2 000) is, as required by sections 8.36 and 8.37, a cost that GasNet will incur in the delivery of the reference service, and a cost that would be incurred by a prudent and efficient service provider.

Credit risk – counter parties

GasNet's proposed allowance for credit risk appears to refer to the risk of counter parties defaulting. That is, GasNet is seeking to insure against the risk that the Victorian gas retailers and other users of the transmission system fail to pay GasNet amounts owing in relation to regulated transmission charges.

In the Final Decision, the Commission accepted an allowance of \$10 000 per year (as opposed to \$250 000 proposed by GasNet). In summary:

- the Commission considered the work undertaken by the ESC and its relevance to GasNet. The ESC concluded that the expected loss for distributors associated by retailer default would be close to \$10 000;
- the Commission did not accept GasNet's argument that there are significant differences between the distributors and GasNet; and
- the Commission did not accept GasNet's apparent argument that non-retail users of its system may have a greater default risk than retailers. The Commission considered that it would be equally possible that non-retail users would have credit ratings at least as high as the retailers. It also noted that it would expect the retailers to remain the predominant users of the system in the future, limiting the impact of any defaulting non-retail user.⁴⁷

GasNet's supplementary submission provides no further information to suggest that its proposed allowance of \$250 000 (as opposed to the \$10 000 specified by the Commission) complies with sections 8.36 and 8.37.

Terrorist risk

As outlined in the Final Decision, GasNet estimated a premium of \$65 000 to insure against terrorist sabotage based on a value of aboveground assets of \$140 million and a one in five hundred event.

⁴⁶ ACCC, GasNet Final Decision, 13 November 2002, p. 166.

⁴⁷ *ibid.*, pp. 167-168.

The Final Decision sets out the Commission's reasons for not accepting this allowance. In summary, the Commission considered that:

- the likelihood of terrorist sabotage for GasNet would be very small;
- the risk faced by GasNet is unlikely to be different to other Australian businesses as a whole; and
- the basis for the calculation of the allowance appeared to be inconsistent with GasNet's revenue model (in particular, the valuation of regulated aboveground assets).

The Commission stated that it would be:

hesitant to include an annual allowance when it is unable to confirm that the proposed cost is prudent. The observation that the proposed allowance appears to be inconsistent with the revenue model increases this concern. It is not appropriate for tariffs to be calculated on the basis of costs that are not prudent.⁴⁸

GasNet's supplementary submission provides no further information to suggest that the proposed allowance of \$65 000 complies with sections 8.36 and 8.37.

Uplift liability

As outlined in the Final Decision, GasNet is liable for uplift payments to other market participants if it fails to meet its obligations under the Service Envelope Agreement (SEA). The liability is limited to the lower of \$20/GJ or \$1 million per year.

GasNet proposed an annual allowance of \$65 000 for this liability. The Final Decision sets out the Commission's reasons for excluding this cost from GasNet's revenues. In summary, the Commission considered that:

- the proposed reference tariffs are based on the costs associated with maintaining the GNS to the level required under the SEA;
- the cost of random equipment failure would have been included in the total operations and maintenance approved by the Commission for the initial access arrangement period;
- the operations and maintenance expenditure proposed, and accepted by the Commission, for the forthcoming access arrangement period includes expenditure to repair some compressor equipment that is subject to random failure.⁴⁹ Consequently, the Commission concludes, and GasNet has not advised otherwise, that the reference tariffs for 2003 to 2007 have been calculated on the basis that an allowance for random equipment failure in general is included in the total costs; and
- the benchmark costs of other pipeline businesses do not specify any allowance for random equipment failure as an exclusion. The Commission therefore concludes that the benchmark businesses have included such an allowance in the total operations and maintenance costs provided.

⁴⁸ *ibid.*, p. 169.

⁴⁹ *ibid.*, pp. 139-140.

As stated in the Final Decision, the approval of the proposed allowance would result in costs for this event being included in the revenue calculation twice. The Commission concluded that it:

does not consider that it is in the interest of users (see section 2.24(f) of the Code) to pay for this event twice. Nor would the inclusion of the proposed allowance reflect the economically efficient operation of the pipeline (in regard to section 2.24(d)).⁵⁰

GasNet's supplementary submission provides no further information to suggest that its proposed allowance of \$65 000 complies with sections 8.36 and 8.37.

Key person risk

As outlined in the Final Decision, GasNet proposed an allowance of \$72 000 per annum for key person risk. Insurance policies are available in relation to the risk of business disruption costs arising from the sudden departure of key staff and the cost of finding a suitable replacement.

The Final Decision sets out the Commission's reasons for not accepting this allowance. In summary, the Commission considered that:

- as noted by the ESC, and acknowledged later by GasNet, there is little likelihood that income for the reference service would suffer from the loss of a key staff member of GasNet's business;
- GasNet was without a Chief Financial Officer for an extended period. The Commission was not aware of any disruption to GasNet's business operations as a result of the vacancy;
- the only clear activity that may suffer disruption would be market development, a relatively minor aspect of a gas transmission company's business;
- the operations and maintenance costs of the benchmark businesses would include an allowance for the event that a key person leaves the business as all businesses face the risk that this may occur. The Commission considers that it would be reasonable to expect the benchmark operations and maintenance costs to include all costs faced by a service provider;
- there is no indication that this event is excluded from GasNet's operations and maintenance costs for 1998 to 2002;
- the Commission would expect a prudent business to ensure that the skills base of its staff is sufficiently broad to accommodate some unexpected staff movements. It noted that the forecast cost of GasNet's plan to increase its skills base and undertake recruitment has been accepted by the Commission; and
- the departure of a key staff member would create some savings for a business which at least offset some of the additional costs incurred.

The Commission commented that 'it appears that GasNet is seeking to charge users twice for the possibility that these events may occur. The Commission does not

⁵⁰ *ibid.*, p. 171.

consider that this is in the interest of users (pursuant to section 2.24(f)) or that it represents the efficient operation of the pipeline (section 2.24(d))’.⁵¹

GasNet’s supplementary submission provides no further information to suggest that its proposed allowance of \$65 000 complies with sections 8.36 and 8.37.

Employment practices

This self insurance item relates to wrongful acts by the employer in relation to employment. It includes sums for damages, settlements and other costs relating to actions for harassment, unlawful discrimination and breaches of privacy. GasNet proposed an annual allowance of \$35 000 be included in its proposed asymmetric risk allowance for the purpose of calculating reference tariffs.

The Commission did not accept this allowance. In concluding this, the Commission considered that:

- all businesses must comply with the relevant employment related legislation and consequently, this event is not unique to GasNet;
- the Commission has no reason to believe that the operations and maintenance costs for the benchmark pipeline businesses have been determined without reference to the possibility of employment related events;
- there is no reason to believe that the total operations and maintenance costs accepted by the Commission for GasNet for 1998 to 2002 exclude an allowance for the costs that may be incurred in relation to employment related events; and
- it is reasonable to consider that the operations and maintenance costs proposed for 2003 to 2007 have been determined by reference to the possibility that an event may occur. As a result, acceptance of the proposed asymmetric allowance would result in users paying twice.

GasNet’s supplementary submission provides no further information to suggest that this proposed allowance complies with sections 8.36 and 8.37 of the Code.

Conclusion

In its 1998 Final Decision, the Commission accepted benchmark cost allowances which it considered would cover all prudent and efficient costs. Implicitly, asymmetric costs were already allowed for. In its Final Decision, the Commission expressed concern that GasNet was simply transferring implicit costs to separately identified cost categories with a view to increasing the level of allowable costs in its revenue calculation. Nevertheless, in the Final Decision, the Commission considered each category of asymmetric risk proposed by GasNet to determine whether, as required by sections 8.36 and 8.37 of the Code, the proposed allowance was:

- a cost that GasNet will incur in the delivery of the reference service; and
- a cost that would or would not be incurred by a prudent and efficient service provider.

⁵¹ *ibid.*, p. 173.

The Commission also considered whether GasNet's forecast costs satisfied section 8.2(e) (which requires forecasts to represent best estimates arrived at on a reasonable basis).

The Commission concluded that GasNet's proposed annual asymmetric risk allowance of \$752 000 (apart from the allowance of \$22 000 specified by the Commission and the insurance policy deductibles to be included in the pass through mechanism) did not comply with the Code requirements.

In its supplementary submission of 6 December 2002, GasNet raised an additional consideration, namely that the amended revisions should be approved as the difference in total revenue is only 5.8 per cent which disproportionately affects GasNet as opposed to users. This argument is set out in full in relation to Amendment 13 in section 2.1.4 of this Final Approval.

GasNet's submission does not alter the Commission's assessment that GasNet's proposed allowance of \$509 000 (apart from the \$22 000 allowed by the Commission) does not comply with sections 8.2(e), 8.36 and 8.37. Even if the Code permitted a departure from these provisions, the Commission is not satisfied that the additional consideration raised by GasNet outweighs the competing considerations set out above.

Consequently, the Commission considers that GasNet's reference tariffs (which are calculated on the basis of GasNet's proposed asymmetric risk allowance) do not comply with the Code (as opposed to the allowance specified by the Commission in Amendment 26). Therefore, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendment 26. This is reflected in the amended revisions drafted and approved by the Commission (see chapter 3 of this Final Approval).

2.1.9 Non-capital costs – pass through events

Amendment 3

Amendment required

GasNet must amend the following in its revised access arrangement:

- the definition of a Change in Taxes Event in clause 9.1 so that (b) reads 'the removal or imposition of a Relevant Tax';
- the definition of a Regulatory Event in clause 9.1 to allow for regulatory requirements that may result in either higher or lower costs for GasNet;
- the definition of an Insurance Event in clause 9.1 to allow for a changes in the Minimum Insurance Level that exceed or fall short of the Benchmark Insurance Costs; and
- the definition of an Insurance Event in clause 9.1 to include the amounts currently identified in the asymmetric risk allowance as deductibles in current insurance.

GasNet must also amend clause 6.4 of its revised access arrangement to allow both positive and negative pass through amounts.

GasNet's response

Clause 9.1 in GasNet's amended revisions has been changed so that:

- the definition of a Change in Taxes Event now includes paragraph (b) 'the removal or imposition of a Relevant Tax';
- the definition of a Regulatory Event now covers regulatory requirements which result in GasNet incurring materially higher or lower costs;
- the definition of an Insurance Event is now relevantly defined as circumstances in which:
 - (a) there has been a change in one or more costs in the insurance comprising GasNet's Minimum Insurance Level and as a result of that change, the aggregate costs of GasNet's Minimum Insurance Level exceeds or falls short of the Benchmark Insurance Costs;
 - (b) GasNet is required to pay a deductible in connection with a claim under an insurance policy; or

GasNet has amended clause 6.3 to include the phrase 'A Pass Through Amount may be positive or negative'.

GasNet has also made the following changes to its amended revisions that were not required by the Commission:

- GasNet has deleted clause (c) in the definition of a Change in Taxes Event which originally stated 'to the extent that the change or imposition (c) occurs after the Commencement Date';
- GasNet has deleted the words 'after the Commencement Date' from the definition of Regulatory Event in clause 9.1 which originally read 'Regulatory Event means a decision made by the Commission or any other Authority or any amendment to an Applicable Law after the Commencement Date. ...'.
- GasNet has also removed the phrase 'at the Commencement Date' from clause (a) of the definition of a Regulatory Event, which originally stated:
 - (a) imposing minimum standards (including safety or technical standards) on GasNet relating to the Tariffed Transmission Service that are different from the set of minimum standards imposed on GasNet associated with the Tariffed Transmission Service at the Commencement Date.
- GasNet has added the following clause (c) to the definition of an Insurance Event in clause 9.1:
 - (c) an event occurs which:
 - (i) is within GasNet's Minimum Insurance Level but is not insured (whether as a result of availability, GasNet's election or otherwise); and
 - (ii) causes GasNet to suffer loss or damage.

Commission's assessment

Section 8.3 of the Code provides that subject to the regulator being satisfied that it is consistent with the objectives in section 8.1 of the Code, the manner in which a reference tariff may vary within an access arrangement period through implementation

of the reference tariff policy is within the discretion of the service provider. The reference tariff may be designed on the basis of a ‘price path approach’, a ‘cost of service approach’ or a combination or variation of these approaches.

Section 8.37 of the Code allows a reference tariff to provide for the recovery of non-capital costs (being costs incurred in the delivery of the reference service) 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. Section 8.36 of the Code specifies which costs may be classified as non-capital costs. The objectives in section 8.1 and the factors in section 2.24 also guide the regulator’s decision.

GasNet has proposed further changes to its reference tariff policy which will allow it to expand the scope of the pass through mechanism for non-capital costs to include pass through events which occur before the commencement date, provided that the pass through events have had a financial effect on GasNet during the second access arrangement period.

The Commission has assessed this further proposal against the Code provisions identified above and considers that it is not appropriate to restrict GasNet’s ability to pass through those non-capital costs which have been incurred due to a pass through event occurring prior to the commencement date. Section 8.37 places a restriction on the recovery of those non-capital costs which are not incurred by an efficient and prudent service provider. Section 8.3 allows variation within an access arrangement period based in this case on a cost of service approach. While broadening the scope of the mechanism may be contrary to the interests of users in certain situations (section 2.24(f)), it is within the interests of the service provider (section 2.24(a) of the Code) and contemplated by the design of a reference tariff policy in section 8. The inclusion of these pass through scenarios should also promote the economically efficient operation of the pipeline (section 2.24(d) of the Code).

Another change in GasNet’s amended revisions is the removal of the words ‘at the Commencement Date’ from clause (a) of the definition of a Regulatory Event. The Commission expects that this will result in GasNet being able to seek the pass through of those costs it incurs as a result of a change in the standard at which it must provide the reference services. This change will mean that the benchmark standard is not fixed in time as previously proposed by GasNet but will now be the standard that applied before the regulatory event occurred. This is consistent with the adoption of a cost of service approach.

GasNet has added an additional clause (clause (c)) to the definition of an Insurance Event. This clause allows GasNet to pass through an amount incurred as a result of an event which causes GasNet to suffer loss or damage and is within GasNet’s Minimum Insurance Level, but is not insured. The Minimum Insurance Level is defined as the level of insurance comprising insurance policies held (or required to be held) by GasNet at the Commencement Date. Thus, by definition, the additional clause only allows GasNet to pass through insurance amounts that are required to be held but are not insured by GasNet at the Commencement Date. The Commission considers that this addition is reasonable and consistent with the pass through mechanism approved in the Final Decision.

The Commission is satisfied that GasNet's amended revisions address Amendment 3.

Amendment 4

Amendment required

GasNet must amend the definition of a Relevant Tax in clause 9.1 to read as follows.

Relevant tax means any tax, (including any rate, duty, charge, levy or other like or analogous impost paid or taken to be paid by GasNet associated with the Tariffed Transmission Service), but excludes:

- (1) income tax (or State equivalent tax) and capital gains tax;
- (2) penalties and interest for late payment relating to any tax, rate duty, charge, levy or analogous impost;
- (3) fees and charges paid or payable in respect of a *Regulatory Event*,
- (4) stamp duty, financial institutions duty, bank accounts debits tax or similar taxes or duties; and
- (5) any tax, rate, duty, charge, levy or other like or analogous impost which replaces the taxes and charges referred to in (1) to (4).

GasNet's response

Clause 9.1 in GasNet's amended revisions now states:

Relevant tax means any tax, (including any rate, duty, charge, levy or other like or analogous impost paid or taken to be paid by GasNet associated with the Tariffed Transmission Service), but excludes:

- (a) income tax (or State equivalent tax) and capital gains tax;
- (b) penalties and interest for late payment relating to any tax, rate duty, charge, levy or analogous impost;
- (c) fees and charges paid or payable in respect of a Regulatory Event,
- (d) stamp duty, financial institutions duty, bank accounts debits tax or similar taxes or duties; and
- (e) any tax, rate, duty, charge, levy or other like or analogous impost which replaces the taxes and charges referred to in (a) to (d).

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 4.

Amendment 5

Amendment required

GasNet must amend clause 6.2(b) of its revised access arrangement to provide an assessment period of 40 business days and to allow the Commission, at its absolute discretion, to extend the period by a further 40 day period on one or more occasions

where it considers it necessary to adequately assess the pass through proposal. Clause 6.1 of its revised access arrangement should also be amended so that:

- GasNet is obliged to submit a Pass Through Event statement to the Commission at least 50 business days prior to the start of the regulatory year;
- the statement must detail all Pass Through Events which have occurred in that period (ending on the date specified in the statement) but not previously notified to the Commission and provide the information described in 6.1(a) to (e) of the revised access arrangement for those events; and
- where no Pass Through Events have occurred for the relevant period, this should be stated.

GasNet's response

Paragraph (b) has been added to clause 6.2 of GasNet's amended revisions. This states:

- (b) The Commission must give a notice under clause 6.2(a) within 40 Business Days of receiving a statement from GasNet under clause 6.1(a). The Commission may, at its discretion, extend this period. An extension may be made:
 - (i) for a period of up to 40 Business Days;
 - (ii) on one or more occasions; and
 - (iii) by giving written notice to GasNet specifying the period of the extension.

Clause 6.2(c) (previously clause 6.2(b)) in GasNet's amended revisions has also been changed to stipulate that the Commission is taken to have notified GasNet of its pass through decision if 'the Commission does not give a notice to GasNet under clause 6.2(b) within the period specified in clause 6.2(b) (including any extensions)...'.

Clause 6.1 of the amended revisions now states that GasNet must, at least 50 business days prior to the start of a regulatory year, give a pass through statement to the Commission. The pass through statement must specify whether or not there are any pass through events that have a financial effect on GasNet in the second access arrangement period, and have not been previously notified to the Commission. If the statement identifies one or more pass through events, the statement must include the information described in clause 6.1(b)(i) to (iv).

In addition, the word 'estimated' has been deleted from clause 6.1(b)(iii) of the amended revisions.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions address Amendment 5.

Amendment 6

Amendment required

GasNet must amend:

- clauses 4.5, 4.6 and 4.7 in Schedule 4 and clauses 6.4 and 6.5 of its revised access arrangement to allow any approved pass through amounts to be recovered (paid back) through the average revenue control mechanism;

- clauses 6.2 and 6.3 to specify that pass through amounts must have been incurred by GasNet in the 2003 to 2007 access arrangement period; and
- schedule 4 to allow for a carryover in the third access arrangement period for any pass through amounts incurred in 2003 to 2007 period but not recovered (paid back) in that period.

GasNet's response

Clause 4.6 of Schedule 4 of GasNet's amended revisions has been changed to include a pass through amount (PTA_{t-1}) as part of the KTa equation. GasNet has defined PTA_{t-1} as follows:

PTA_{t-1} (in \$) is the Pass Through Amount submitted in t-1 and approved by the Commission for recovery (pay back) in regulatory year t.

Clauses 6.4 and 6.5 of the amended revisions have been removed and replaced with clause 6.4 which stipulates that the pass through amount approved (or deemed to be approved) by the Commission must be applied in accordance with Schedule 4.

A change has been made to clause 6.1 of the amended revisions to require GasNet to specify whether or not there are any pass through events which have had a financial effect on GasNet in the second access arrangement period and not previously been notified to the Commission.

The inclusion of pass through events in the KTa equation allows, through the operation of fixed principle 7.1, a carryover in the third access arrangement period for pass through amounts claimed but not recovered (paid back) in the second access arrangement period. In addition, GasNet has added fixed principle 7.3 which states that:

If:

- (a) a Pass Through Event has occurred;
- (b) the Pass Through Event has a financial effect on GasNet in the Second Access Arrangement Period; and
- (c) GasNet has not given a statement under clause 6.1(a) during the Second Access Arrangement Period in relation to that Pass Through Event,

then GasNet may request a Pass Through Amount to apply in the Third Access Arrangement Period on the same terms as clause 6.1 to 6.4.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions address Amendment 6.

Amendment 7

Amendment required

GasNet must amend:

- clauses 6.1 and 6.2 of its revised access arrangement to require the provision, at least 50 business days before the start of a regulatory year, of sufficient detailed

documentary evidence which substantiates that the aggregate costs facing GasNet have increased or decreased as a consequence of the alleged pass through event.

- clause 6.1 of its revised access arrangement to require GasNet to provide the Commission with a copy of insurance premium invoices annually at least 50 business days before the start a regulatory year, irrespective of whether a pass through event statement is submitted.

GasNet's response

GasNet has added the following sub-clauses to clause 6.1 in its amended revisions:

- (c) A statement given under clause 6.1(a) must include documentary evidence (if available) which substantiates the financial effects of the Pass Through Event. GasNet must use best endeavours to ensure that such information is available.
- (d) A statement given under clause 6.1(a) must also include a copy of all insurance premium invoices relating to the preceding Regulatory Year.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 7.

2.1.10 Reference tariffs

Amendment 2

Amendment required

GasNet must amend its revised access arrangement by removing clause 4.10.

GasNet's response

GasNet has removed clause 4.10 (which dealt with the intra-period amending of zones) from the revised access arrangement.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 2.

Amendment 21

Amendment required

GasNet must amend section 3.5 of its revised access arrangement information so that the estimated K factor under-recovery to be carried forward is \$12 903 127 in 2003 dollar terms.

GasNet's response

Clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the non-capital costs recovered by the reference tariffs in

GasNet's amended revisions. GasNet has added \$12.9 million (2003 dollar) as an extraordinary expense applying in 2003. However, this cost will be distributed over the recovery period 2003 to 2007 in the same manner that operating costs are levelised over 2003 to 2007 with the selected X factor.

Commission's assessment

As discussed in section 6.2.2 of the Final Decision, if the average tariff achieved is different to the average benchmark achieved, the K factor allows future tariffs to be adjusted to allow the under-recovery (or over-recovery) to be recovered (paid back to users) in the next regulatory year. Section 8.3 of the Code allows the variation of reference tariffs during an access arrangement period. The Final Decision considered three separate issues relating to the K factor: the recovery of the K factor shortfall from the first period; the individual tariff rebalancing mechanism; and the proposed ring-fencing of new facility investments from the K factor adjustment. Amendment 21 concerns the first issue. The Commission is satisfied that GasNet's amended revisions incorporate Amendment 21.

Amendment 22

Amendment required

GasNet must amend clause 4.9 of Schedule 4 of its proposed revised access arrangement to remove 'Step 2' of the rebalancing control formula.

GasNet's response

Step 2 in clause 4.9 of Schedule 4 of GasNet's initial revised access arrangement scaled individual tariffs to ensure total recovery (pay back) of the maximum average transmission tariff (MATT). GasNet has deleted this step in its amended revisions.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 22.

Amendment 23

Amendment required

GasNet must revise the calculation of the K factor adjustment so that peak volumes (forecast and actual) associated with the Southwest Pipeline are deemed to be associated with the Longford injection pipeline. If this revision is demonstrated to be impractical, GasNet must remove all injection pipelines from the K factor mechanism.

GasNet's response

Schedule 4 in GasNet's amended revisions requires all Port Campbell injection volumes (except those matched to withdrawals from the Western zone and the Port Campbell to Adelaide pipeline) to be added to the Longford injection volumes when calculating the Longford injection revenue.

Commission's assessment

Gas transported to the Western zone and the Port Campbell to Adelaide pipeline uses very little of the South West Pipeline and pays no injection tariff. It is appropriate, therefore that these volumes not be considered as part of the South West Pipeline volumes for the purpose of this amendment. The Commission is satisfied that GasNet's amended revisions address Amendment 23.

Amendment 24

Amendment required

GasNet must revise the calculation of the K factor adjustment so that, for the annual volumes (forecast and actual) associated with the Murray Valley Pipeline, the applicable tariff is not the complete Murray Valley tariff but the portion covering system costs of transportation to Chiltern Valley.

GasNet's response

Schedule 1 in GasNet's amended revisions sets out the portions of the Murray Valley tariffs which apply to use of the system to Chiltern Valley and the portions which apply to the Murray Valley Pipeline itself (called the 'Incremental' tariffs). Schedule 4 (which contains the price control formula, including the K factor adjustment) requires that the revenues and volumes associated with the incremental tariffs be excluded from all calculations in the schedule.

Commission's assessment

Exclusion of the incremental tariffs and their associated volumes will leave in the K factor adjustment the tariffs to Chiltern Valley and their associated volumes. These volumes will be the same as those associated with the incremental tariff, as the only volumes to flow through the Chiltern Valley point are those destined for the Murray Valley Pipeline itself. Consequently, GasNet's changes to the revised access arrangement will have the effect the amendment intended: the volumes associated with Murray Valley will be linked with the tariff component which covers the system up to the start of the actual Murray Valley Pipeline. Therefore, the Commission is satisfied that GasNet's amended revisions address Amendment 24.

Amendment 32

Amendment required

GasNet must amend section 4 of its revised access arrangement information to include forecast flows from the Yolla field in its flow assumptions from 2004.

GasNet's response

Table 4-5 in the revised access arrangement information submitted by GasNet on 6 January 2003 sets out forecast injection volumes for each tariffed injection point from 2003 to 2007. GasNet has included forecast volumes for the Yolla field (of 60 TJ/day,

commencing in 2004). The reference tariffs in GasNet's amended revisions are calculated on the basis of the amended figures.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 32.

Amendment 33

Amendment required

GasNet must amend section 5.3 of its revised access arrangement information to allocate the K factor under-recovery of \$12 903 127 (in 2003 dollars) to all tariffs (other than those for the Southwest Pipeline) as a uniform percentage increase.

GasNet's response

Clause 5.3 of the revised access arrangement information submitted by GasNet on 6 January 2003 describes the procedure used by GasNet to allocate costs to specific off-takes and tariff classes. The K factor under-recovery of \$12 903 127 (2003 dollars) has been allocated to all tariffs (other than those for the Southwest Pipeline) as a uniform percentage increase. This is reflected in the reference tariffs set out in GasNet's amended revisions.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 33.

Amendment 34

Amendment required

GasNet must amend section 5.3 of its revised access arrangement information to allocate capital raising costs on the same basis as it allocates depreciation and return on capital.

GasNet's response

Table 5-1 of the revised access arrangement information submitted by GasNet on 6 January 2003 states that capital raising costs are allocated on the 'physical path' method, which is the same method as return on and of capital.

Commission's assessment

GasNet's tariff model allocates equity raising costs to zones according to the proportion the zone's return on and of assets is of the total return on and of capital for GasNet. Debt raising costs are incorporated in the WACC and will therefore be allocated to zones along with the allocation of the rest of the return on assets. The Commission is satisfied that GasNet's amended revisions incorporate Amendment 34.

Amendment 35

Amendment required

GasNet must amend clause 1.3(g), schedule 1 of its revised access arrangement (as amended in September 2002) to require the provision of sufficient evidence to the Commission to support a claim that a specific bypass threat is credible. In addition, it must state that the introduction of the Warrnambool and Koroit prudent discounts would be subject to the Commission's approval.

GasNet's response

Clause 4.10 of GasNet's amended revisions provides as follows:

The Transmission Tariffs may be altered to reflect the prudent discounts for Withdrawal of gas referred to in clause 1.3(g) of Schedule 1. These prudent discounts will not come into operation unless:

- (a) GasNet has provided evidence to the Commission that there is a credible bypass risk; and
- (b) the Commission has approved the introduction of the prudent discounts.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 35.

Amendment 36

Amendment required

In calculating tariffs, GasNet must amend its proposed revised access arrangement to calculate a tariff for Murray Valley users which is a combination of an incremental tariff for the Murray Valley Pipeline and a tariff for system usage to Chiltern Valley. These tariffs must be based on the standard cost allocation methodology (as expressed in GasNet's submission of 24 October 2002) except that GasNet must allocate 75 per cent (rather than 100 per cent) of Murray Valley costs to users on the basis of peak usage and 25 per cent on the basis of annual usage.

GasNet's response

Clause 1.3(h) of Schedule 1 of GasNet's amended revisions tabulates the Chiltern Valley and the Incremental components of the Murray Valley tariffs.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 36.

Amendment 37

Amendment required

GasNet must replace the proposed X of five per cent in schedule 1 of the revised access arrangement with an X of three per cent.

GasNet's response

Schedule 1 of GasNet's amended revisions sets out the initial transmission tariffs for the various zones of the GNS. GasNet had initially proposed that the majority of these tariffs would be subject to a CPI-X path with an X of five per cent. The X of five per cent has been replaced with an X of three per cent for each relevant tariff.

The tariffs that GasNet proposed to be subject to a price path of CPI, that is an X of zero, have retained this path.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 37.

Amendment 38

Amendment required

GasNet must amend schedule 3 to its revised access arrangement so that the annual tariff review time frames currently in clause 6.1 of the Tariff Order are retained. GasNet must also include the provisions currently in clauses 6.1(a)(1)(B) and 6.1(f)(2) of the Tariff Order in schedule 3 to its revised access arrangement.

GasNet's response

GasNet has amended clauses 3.1 and 3.3(c) of schedule 3 of its amended revisions to retain the time frames set out in clause 6.1 of the Tariff Order. Consequently:

- GasNet must provide a statement to the Commission setting out its proposed tariffs for the forthcoming year at least 30 business days before the start of that year; and
- the Commission must respond to GasNet's statement within 20 business days.

Clause 3.1(b) of the amended revisions requires GasNet's annual tariff statement to set out the proposed tariff components for each transmission tariff. Clause 3.3(b) states that the Commission must approve GasNet's annual tariff statement if: it complies with the principles and price control formulae provided in schedule 4 of the access arrangement (clause 3.3(b)(i)); and the forecasts included in the statement are satisfactory to the Commission (clause 3.3(b)(ii)).

Commission's assessment

The amendments to clauses 3.1 and 3.3(c) are consistent with the requirements specified in Amendment 38 in regard to the time frames applicable to the annual tariff assessment process.

Clauses 3.1(b) and 3.3(b)(ii) mirror clauses 6.1(a)(1)(B) and 6.1(f)(2) of the Tariff Order respectively.

Consequently, the Commission is satisfied that GasNet's amended revisions incorporate Amendment 38.

2.1.11 Incentives

Amendment 40

Amendment required

GasNet must amend clause 7.2 of its revised access arrangement so that the benefit sharing allowance for operations and maintenance costs calculated for the third access arrangement period is based on the rolling carryover mechanism. The amendment must:

- allow GasNet to keep unanticipated efficiency gains (losses) for the year that they are implemented and for an additional five years;
- allow for the carryover of both unanticipated gains and losses;
- determine operations and maintenance expenditure achieved by GasNet in 2007 by taking 2006 actuals and adjusting these by the change in expenditure which is forecast to occur between 2006 and 2007;
- not allow for volume growth, except for operations and maintenance costs associated with capital expenditure deemed prudent and rolled into the asset base;
- adjust second period forecast costs for any positive or negative pass through events that may occur within the period;
- adjust second period forecast costs for regulatory review expenses; and
- ensure that all amounts are expressed in 2008 dollars.

GasNet's response

The reference tariff policy in GasNet's amended revisions has been changed so that:

- Clause 7.2(a) states that reference tariffs in each of the first five years after 2007 must include a benefit sharing allowance;
- Clause 7.2(b) sets out the calculation of the benefit sharing allowance for each year 2008 to 2012 inclusive. This stipulates that the benefit sharing allowance (B_t) in each year is equal to the sum of the efficiency gains or losses (E_t) in selected prior years of the second access arrangement period;
- Clause 7.2(c) states that the efficiency gain or loss for 2003 is calculated in accordance with the formula $E_{2003} = F_{2003} - A_{2003}$ where F_{2003} is GasNet's forecast operating costs for 2003 and A_{2003} is GasNet's actual operating costs for 2003;
- Clause 7.2(d) specifies that the efficiency gains or losses for each of 2004, 2005 and 2006 are to be calculated in accordance with the formula:

$$E_t = (A_{t-1} - A_t) - (F_{t-1} - F_t)$$

where:

A_t = GasNet's actual operating costs for year (t)

A_{t-1} = GasNet's actual operating costs for the year prior to year (t)

F_t = GasNet's forecast operating costs for year (t)

F_{t-1} = GasNet's forecast operating costs for the year prior to year (t)

- Clause 7.2(e) states that actual costs (A_t , A_{t-1} , and A_{2003}) must be determined using the methodology used to calculate the total forecasts in Table 3-6 of GasNet's access arrangement information (which excludes regulatory costs associated with the third access arrangement period) and without adjustments for volume;
- Clause 7.2(f) stipulates the adjustments to forecast operating costs required for the calculation of the benefit sharing allowance. This clause requires an adjustment for: the aggregate of all pass through amounts; additional operations and maintenance costs associated with extensions and expansions which are included in the capital base but not included in forecast capital expenditure for 2003-2007, and revenues obtained from the transmission refill tariffs;
- Clause 7.2(g) states that for the purposes of calculating the benefit sharing allowance, the actual and forecast operations costs for 2003 to 2007 must be reduced to real 2002 dollars. The calculated allowance is then adjusted by the actual and forecast CPI change between 2002 and that year (2008 to 2012); and
- Clause 7.2 (h) states that the allowable revenues for operations and maintenance costs for the third access arrangement period are to be calculated by: taking into account the actual operating costs in 2006, adjusting these costs for the change in benchmark operating costs between 2006 and 2007, and not taking into account the efficiency gain made in 2007. In addition, a percentage change factor and forecast changes in relevant costs between 2006 and each year of the third access arrangement period should be taken into consideration when determining third period forecasts.

Commission's assessment

Section 8.44 of the Code provides that where the regulator considers it appropriate, a reference tariff policy should contain an incentive mechanism. The following provisions are relevant to assessing the design of a proposed incentive mechanism:

- the incentive mechanism must be consistent with the principles contained in section 8 (section 8.2(d));
- section 8.45 provides examples of the types of incentive mechanisms that may be included; and
- section 8.46 lists the objectives that an incentive mechanism should be designed to achieve including to encourage the service provider to increase sales volumes, minimise costs, develop new services and undertake only prudent new investment and non-capital expenditure. The mechanism should also be designed to ensure that users gain from any increased efficiency, innovation and improved sales volumes.

The Code also requires the Commission when assessing a proposed incentive mechanism to consider the objectives in section 8.1 of the Code (in particular, section 8.1(f)) and the factors in section 2.24. Sections 8.47 and 8.48 are also relevant where the incentive mechanism is proposed as a fixed principle.

In its Final Decision the Commission indicated that GasNet must express amounts in 2008 dollars when calculating the benefit sharing allowance for the third access

arrangement period. The objective of this amendment was to ensure that the benefit sharing calculation was undertaken in real dollar terms. In its amended revisions, GasNet proposes this calculation to be undertaken in 2002 terms, and the calculated allowance be adjusted by actual and forecast CPI between 2002 and the relevant year (clause 7.2(g)).

GasNet has included a clause 7.2(h) in its amended revisions which specifies the methodology for calculating allowable revenues for operations and maintenance expenditure for the third access arrangement period. The Commission discussed this methodology in its Final Decision although it did not expressly require it to be incorporated into the reference tariff policy.

GasNet has also changed the general operations and maintenance costs benefit sharing approach proposed in clause 7.2(f)(iii) for the second and subsequent access arrangement periods. This now excludes any costs associated with the refill of the underground storage facility from the benefit sharing calculation.

While this proposal was not raised by GasNet until the lodgement of the revised access arrangement and access arrangement information on 6 December 2002, the Commission notes that the purpose of this further exclusion is consistent with the approach accepted in the Final Decision to exclude certain cost categories from the efficiency carryover mechanism such as those items included in the pass through mechanism. As stated in the Final Decision:

After further consideration, the Commission concurs with GasNet that it is not appropriate to incorporate any approved pass through amounts in the benefit sharing calculation. The inclusion of such pass through events in the model is logically inconsistent. If a positive pass through event was approved within the access arrangement period, this would generate an increase in allowed revenues within the period. If these costs were then included in the benefit sharing calculation at the end of the period, then these costs would effectively be taken away from the service provider for a specific number of years, depending on when in the period the pass through event occurred.⁵²

The Commission is satisfied that the exclusion of refill expenses is consistent with the purpose of an incentive mechanism to permit the service provider to retain all or any share of any returns to the service provider from the sale of the reference service. If the underground storage facility is refilled in a regulatory year, GasNet recovers the costs incurred by means of the transmission refill tariff, which has been set at marginal cost. That is, the refill tariff effectively acts as a pass through of refill expenses. As discussed in the Final Decision, the inclusion of such events has the potential to harm the service provider as well as users, depending on the specific scenario. Therefore, the adjustment of the benefit sharing mechanism for revenues obtained from refill tariffs is appropriate and consistent with other aspects of the Final Decision, achieves the objectives set out in sections 8.1 and 8.46 and is in the interests of the service provider (section 2.24(a) of the Code) as well as users and prospective users (section 2.24(f)).

The Commission is therefore satisfied that GasNet's amended revisions address Amendment 40.

⁵² *ibid.*, p. 282.

Amendment 41

Amendment required

GasNet must amend section 3.5 of its revised access arrangement information to remove any benefit sharing allowance associated with the first access arrangement period.

GasNet's response

Clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the non-capital costs recovered by the reference tariffs in GasNet's amended revisions. GasNet has removed from clause 3.5 an allowance for benefit sharing associated with the first access arrangement period.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 41.

2.1.12 Transitional Tariff Component

The revised access arrangement submitted by GasNet on 6 January 2003 includes the following clause 9:

Transitional Provisions

Although the revisions comprising this Access Arrangement came into effect on [*insert commencement date*], it is intended that GasNet and Users should be no worse off than if the revisions had commenced on 1 January 2003. To facilitate this, the following transitional provisions apply.

- (a) GasNet's Reference tariffs include, in addition to any other amounts calculated under this Access Arrangement, the Transition Tariff Component, being an amount calculated applying the following formula:

$$T = R - A$$

where:

T is the Transition Tariff Component (in \$)

R is the aggregate of all charges payable in respect of the Reference Tariffs that would have applied with respect to the Transition Period had the revisions commenced on 1 January 2003

A is the amount received by GasNet for the provision of Transmission Services with respect to the Transition Period

- (b) The Transition Tariff Component is recovered as a one-off charge.
- (c) Any calculation under or in connection with this Access Arrangement that refers to or is made by reference to the Regulatory Year 2003, is to be made as if that Regulatory Year commenced on 1 January 2003.
- (d) In this clause, "Transition Period" means the period commencing on 1 January 2003 and ending on [*insert commencement date*].

Background

As discussed in sections 1.6 and 5.3 of this Final Approval, although the revisions commencement date in GasNet's current access arrangements for the PTS and WTS is 1 January 2003, the access arrangement approved by the Commission is due to commence on 1 February 2003.

GasNet (in letters to the Commission dated 11, 13 and 17 December 2002) noted that:

- the revenue model used to calculate GasNet's reference tariffs for the second access arrangement period is predicated on the basis of revenues collected over a full year; and
- the access arrangement for the PTS currently defines the reference tariffs by reference to the Victorian Gas Industry Tariff Order. The tariffs in the Tariff Order are expressed to apply until 31 December 2002.

The approaches proposed by GasNet (in response to the Commission's letters of 13, 16 and 19 December 2002) included clause 9 (set out above). Upon coming into effect, clause 9 would require shippers to pay a tariff transmission component being the difference between:

- the charges actually paid for the period from 1 January 2003 to the commencement of the revisions; and
- the charges that would have been payable had the revisions taken effect on 1 January 2003.

Pursuant to section 2.28 of the Code, GasNet also proposed (in letters dated 17 December 2002) the following revisions to the current PTS and WTS access arrangements:

PTS Access Arrangement	Insert after clause 5.3.1(b): (c) If the revisions to this access arrangement contemplated by section 3.17 of the Code do not come into effect on the Revisions Commencement Date, then, despite any expiry of the Tariff Order, the Reference Tariffs applying immediately before the Revisions Commencement Date will continue to apply until the relevant revisions come into effect.
WTS Access Arrangement	Insert after clause 5.3.1: (c) If the revisions to this access arrangement contemplated by section 3.17 of the Code do not come into effect on the Revisions Commencement Date, the Reference Tariffs (including, for the avoidance of doubt, the MDQ tariff component, the transmission tariff component, the operations pass through price and the contracted MDQ) applying immediately before the Revisions Commencement Date will continue to apply until the relevant revisions come into effect.

GasNet requested that the Commission, pursuant to section 2.33 of the Code, approve the proposed revisions by 18 December 2002. Under section 2.33, the Commission may approve revisions without access arrangement information or consultation if:

- (a) the revisions have been proposed by the Service Provider other than as required by the Access Arrangement; and
- (b) the Relevant Regulator considers that the revisions proposed are not material and will not result in changes to the Reference Tariffs or to the Services that are Reference Services.

On 18 December 2002, the Commission:

- agreed in principle to the approach set out in clause 9; and
- determined that the revisions proposed by GasNet on 17 December 2002 above should not be approved under section 2.33 of the Code without public consultation as to whether or not the condition in section 2.33(b) is satisfied.

Upon being notified of this decision, GasNet withdrew its proposed revisions of 17 December 2002. The Commission (by letter dated 20 December 2002) also notified VENCORP and market participants of its in principle approval of the transitional provision.

The Commission understands that GasNet has discussed the transitional issue with a number of market participants and has provided tariffs, to apply in the interim, that GasNet believes conform to the Commission's Final Decision. The Commission notes that:

- the invoice in respect of January 2003 is sent to shippers after 1 February 2003; and
- to the extent that there is any discrepancy between the interim tariffs and the final tariffs determined by the Commission, the first billing will be adjusted to reflect the determination.

Commission's assessment

Clause 9 in GasNet's amended revisions concerns the reference tariffs to be paid by users and accordingly must comply with the reference tariff principles in section 8 of the Code (sections 2.46 and 3.4).

Although clause 9 was not specified by the Commission in its Final Decision, clause 9 allows GasNet to recover the total revenue for 2003 allowed by the Commission in the Final Decision.

Clause 9 is intended to put GasNet and users in the same position as envisaged by the Final Decision. Accordingly, the Commission is satisfied that it is consistent with the interests of GasNet (section 2.24(a)) and users (section 2.24(f)).

Consequently, the Commission is satisfied that clause 9 complies with section 8 of the Code and is consistent with the Final Decision. The Commission therefore approves clause 9 of GasNet's amended revisions.

2.1.13 Compliance with reference tariff principles

Each aspect of the reference tariff and reference tariff policy in the revised access arrangement proposed by GasNet on 28 March 2002 was assessed in the relevant chapters of the Final Decision. The chapters set out the reasons why the Commission considered that the amendments specified in the Final Decision were necessary given the relevant provisions of the Code.

Section 8.3 of the Final Decision outlined the Commission's conclusions on GasNet's compliance with the reference tariff principles in section 8 of the Code. Section 8.3 summarised the Commission's analysis of the objectives in section 8.1 of the Code, and set out the Commission's assessment of GasNet's compliance with section 8.2 of the Code. The Commission concluded that the revisions submitted by GasNet on 28 March 2002 would not comply with section 8 of the Code but would if the amendments set out in the Final Decision were incorporated.

This section 2.1.13 similarly outlines the Commission's assessment of whether GasNet's amended revisions of 6 January 2003 comply with the reference tariff principles in section 8 as required by sections 2.46 and 3.3-3.5 of the Code. Section 2.1.13 also responds to the issues raised in GasNet's supplementary submission of 6 December 2002.

GasNet's supplementary submission

As discussed in section 1.5 of this Final Approval, GasNet's supplementary submission raised a number of issues regarding the Commission's approach. In summary, GasNet submitted that:

- the Commission has misunderstood its role under the Code. The Commission is required to, and had not, set out the reasons why it considers that GasNet's proposal does not comply with the Code;
- the Code permits a range of tariff outcomes. GasNet's proposal falls within the range of outcomes permitted by the Code; and
- the Commission is required to, and had not, assessed the overall impact of the revisions, particularly with reference to section 2.24 of the Code.

Evidence of non-compliance

GasNet's supplementary submission relevantly states:

GasNet believes that the Commission has misunderstood its role under the Code, particularly in relation to the Reference Tariffs. Section 3.4 of the Code requires the Commission to determine whether GasNet's revisions comply with the Reference Tariff Principles in section 8. This has a number of consequences.

First, the Commission's focus should be on assessing GasNet's proposals against the Code requirements. Instead, the Commission set about building its own revenue model.

Although the Commission has provided an analysis of why it believes its proposal complies with the Code, the Commission has, in many areas, failed to provide any analysis as to why it believes GasNet's proposal does not comply with the Code. If the Commission intends to reject GasNet's proposal, then it is incumbent on the Commission to establish more than simply showing the Commission calculates a different outcome.

The Commission does not accept GasNet's submission that the Final Decision fails to provide an analysis as to why the Commission believes that GasNet's proposal does not comply with the Code. In relation to the four disputed issues identified in GasNet's supplementary submission, the Final Decision sets out the reasons why:

- the risk free rate and inflation rate should not be estimated using 10 year Government bonds (as proposed by GasNet) but rather should be estimated using bond rates corresponding with the length of the access arrangement period;
- GasNet's proposed equity beta of 1.4 was not supported by current market information (in contrast to the equity beta of 0.97 adopted by the Commission);
- GasNet's proposed allowance of 30 basis points for debt raising costs was inconsistent with reasonable establishment costs facing a benchmark transmission company (as opposed to the 12.5 basis points allowed by the Commission); and
- GasNet's proposed allowance for asymmetric risk would not be incurred by a prudent and efficient service provider (as opposed to the \$22 000 accepted by the Commission).

The Commission considers that section 2.1 of this Final Approval (which is to be read in conjunction with the Final Decision) similarly sets out the Commission's analysis as to why it believes that GasNet's amended revisions do not comply with the Code.

Range of outcomes

GasNet's supplementary submission relevantly states:

[T]he Reference Tariff Principles are, as GasNet has pointed out in its earlier Submission, broad and imprecise and, therefore, a range of tariff outcomes is likely to "comply" with them. Put another way, it is wrong to suggest there is only one unique answer that complies with the Reference Tariff Principles. However, this is exactly how the Commission has proceeded. Instead of assessing whether GasNet's proposals fall within the range of outcomes permitted by the Code, the Commission has incorrectly sought to impose its own single unique outcome.

The Commission agrees that section 8 of the Code permits a range of possibilities and that it may not reject amended revisions that are within that range on the grounds that an alternative access arrangement would be preferable. For example, section 8.3 sets out different approaches by which reference tariffs may vary within an access arrangement period. Sections 8.4 and 8.5A set out alternative methodologies for calculating and applying total revenue.

The Commission noted in its Final Decision that it had accepted proposals by GasNet which were at the top of the plausible range and likely to be in its favour. For example:

- in determining an appropriate market risk premium estimate, the Commission acknowledged studies that supported the view that an appropriate market risk premium estimate would be less than the 6.0 per cent often used by the Commission and proposed by GasNet. The Commission concluded that 'the impact of altering the estimate at this time to 3.0 per cent, for example, may be unduly harmful to GasNet's legitimate business interests',⁵³

⁵³ *ibid.*, p. 97.

- the Commission selected a value for gamma (representing the proportion of utilised imputation credits) that benefited GasNet. The Commission stated:

Notwithstanding the strong evidence for a gamma value of 1.0, for the purpose of this Final Decision, the Commission has decided to retain an assumed value of gamma equal to 0.5 consistent with what was approved for the initial access arrangement period and other recent regulatory decisions. This maintains a sense of regulatory consistency and represents one of the concessions aimed at ensuring that the rate of return is not too low for the ongoing operation of the business.⁵⁴

Other examples include GasNet's demand forecasts, asymmetric risks allowance and pass through mechanism, allowance for capital raising costs, merger of the PTS and WTS access arrangements and a maximum annual tariff re-balancing adjustment of 2 per cent. In addition, the Commission accepted an allowance for regulatory review costs incurred in 2001 and 2002 although these costs were implicitly included in the derivation of benchmark revenue for the first access arrangement period. More generally, the Commission acknowledged that there are conflicting views on what the most appropriate return will be for a regulated business. It noted that a balance between the various principles and objectives of the Code must be found. The Commission stated that:

in assessing some aspects it has placed greater weight on the interests of GasNet pursuant to section 2.24(a) of the Code. This degree of conservatism may have resulted in a return for GasNet that, when compared to decisions made by UK and US regulators, appears to some parties to be high.⁵⁵

However, whilst the Commission accepts that the Code permits a range of tariff outcomes, the Commission, in the Final Decision, concluded that it was not satisfied that GasNet's revisions complied with the Code requirements. As stated above, the analysis for this conclusion is set out in the Final Decision.

Overall impact of revisions

GasNet's supplementary submission relevantly states:

[T]he Code requires the Commission to assess not only compliance with individual criteria in the Code, but also the overall impact of the revisions, particularly with reference to section 2.24 of the Code. The Commission has not, to date, done this.⁵⁶

In paragraph 3.2 (which is set out in the discussion relating to Amendment 13 in section 2.1.4 of this Final Approval), GasNet discusses its overall analysis of the impact of its proposals. In summary, GasNet submits that:

- the total revenue proposed by GasNet differs from the total revenue proposed by the Commission by approximately 5.8 per cent. Assuming the Commission's proposal is within the permissible range of the reference tariff principles, then, so GasNet submits, it is likely that GasNet's proposal is also within that range (especially given the imprecision of the reference tariff principles); and

⁵⁴ *ibid.*, p. 99.

⁵⁵ *ibid.*, p. 117.

⁵⁶ GasNet supplementary submission, 6 December 2002, p. 2.

- although it is only a 5.8 per cent difference (in total revenue), GasNet's legitimate business interests are adversely (and disproportionately) affected by the Commission's proposals in contrast to users.

Having concluded that the reference tariffs in GasNet's amended revisions do not comply with section 8, it seems unlikely that sections 2.46 and 3.4 would permit the Commission to approve the amended revisions in light of the factors in section 2.24. For this reason, the Commission has not assessed the overall impact of the reference tariffs with reference to section 2.24. However, even if the Commission had such a discretion, it would not alter the Commission's conclusion. The issues raised by GasNet in paragraph 3.2 of its supplementary submission have been considered by the Commission when assessing GasNet's proposed rate of return and non-capital costs (on which the reference tariffs in its amended revisions are calculated).⁵⁷ As outlined in this Final Approval, the Commission does not accept that the reference tariffs in GasNet's amended revisions come within the range permitted by the Code.

Compliance with reference tariff principles

As discussed in relation to Amendments 12, 13, 20, 26, 29 and 30 in sections 2.1.2, 2.1.4, 2.1.5, 2.1.7 and 2.1.8 of this Final Approval, the Commission considers that the reference tariffs in GasNet's amended revisions do not comply with the reference tariff principles in section 8 of the Code (as required by sections 2.46 and 3.4).

In summary, the Commission considers that GasNet's amended revisions do not comply with the Code (in particular, sections 2.46, 3.4, 8.2(a), 8.2(e), 8.4, 8.5A, 8.30, 8.31, 8.36 and 3.37) as a result of GasNet's use of:

- a 10 year rate to determine the risk free rate;
- an inflation rate of 2.52 per cent in 2003 and 2.07 per cent for the remainder of the access arrangement period;
- an equity beta of 1.16;
- a debt raising costs margin of 25 basis points for the debt margin; and
- an asymmetric risk allowance of \$509 000.

These factors result in:

- a rate of return that is not commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service;
- the recovery of non-capital costs that would not be incurred by a prudent and efficient service provider; and
- reference tariffs that are not calculated using forecasts representing best estimates arrived at on a reasonable basis.

⁵⁷ See the discussion in relation to Amendments 12 and 13 (section 2.1.4) and Amendments 20 and 26 (sections 2.1.7 and 2.1.8) in this Final Approval.

In relation to the matters set out in section 8.2 of the Code, the Commission is satisfied that:

- GasNet has adopted one of the methodologies contained in section 8 (cost of service) to determine its total revenue (section 8.2(a)). However, it considers that GasNet's use of a number of parameter values is not consistent with the associated principles contained in section 8;
- the portion of total revenue recovered by individual tariffs is consistent with the principles contained in section 8 (section 8.2(b));
- reference tariffs are designed so that the portion of total revenue is recovered from users consistently with the principles contained in section 8 (section 8.2(c));
- incentive mechanisms are incorporated into the reference tariff policy as appropriate and are consistent with the principles contained in section 8 (section 8.2(d)); and
- other than the issues identified above, the forecasts used in setting the reference tariff represent best estimates arrived at on a reasonable basis (section 8.2(e)). The Commission has exercised its discretion in some cases when considering alternative forecasts that give the benefit of the doubt to GasNet. For example, it has accepted lower demand forecasts than are considered reasonable by VENCORP and the ESC.

If the following parameters are used to derive the reference tariffs, the Commission considers that GasNet's reference tariffs would comply with section 8 of the Code:

- a bond rate corresponding to the access arrangement period (the five year rate) to estimate the risk free rate;
- an inflation rate adjustment of 2.16 per cent for each year;
- an equity beta of 0.97;
- the addition of 12.5 basis points to the debt margin for debt raising costs; and
- an asymmetric risk allowance of \$22 000.

In reaching these conclusions, the Commission had been guided by the objectives in section 8.1 and the factors in section 2.24.

Accordingly, the Commission is not satisfied that GasNet's amended revisions incorporate or otherwise address Amendments 12, 13, 20, 26, 29 and 30. This is reflected in the amended revisions drafted and approved by the Commission.

2.2 Non tariff issues

2.2.1 Services policy

Amendment 43

Amendment required

GasNet must amend clause 3 of its revised access arrangement, services policy, to include the services that GasNet supplies to VENCORP (that is, making the GNS available to VENCORP in accordance with the SEA and the MSOR). In addition, the reference 'VENCORP Services' in clause 3.2 must be changed to 'VENCORP Reference Services'.

GasNet's response

GasNet has revised clause 3 (Services Policy) of its amended revisions so that it now provides:

3.1 Relationship with VENCORP

GasNet owns the GNS and VENCORP operates the GNS. Access to the GNS for Users is governed by the MSO Rules, which establish a market carriage regime for the transportation of gas. In order to obtain access to the GNS, a User must register with VENCORP as a Market Participant under the MSO Rules. As a result, VENCORP has the direct legal relationship with Market Participants regarding access to the GNS.

In order to provide access to the GNS under the MSO Rules, VENCORP obtains the availability of the GNS from GasNet. GasNet and VENCORP are parties to the Service Envelope Agreement, under which:

- (a) GasNet:
 - (i) makes available the entire GNS to VENCORP; and
 - (ii) provides a range of supporting services to VENCORP; and
- (b) VENCORP:
 - (i) operates the GNS in accordance with the MSO Rules; and
 - (ii) agrees to direct Market Participants to pay the Transmission Tariffs directly to GasNet;

3.2 Reference Service

GasNet will make available a single Reference Service comprising the Tariffed Transmission Service, being the availability of the GNS.

3.3 Terms and Conditions

The terms and conditions on which GasNet will supply the Tariffed Transmission Service are the same as those set out in the Service Envelope Agreement and the MSO Rules.

3.4 Existing contractual obligations

The Service Envelope Agreement includes firm and binding contractual obligations of GasNet and VENCORP. VENCORP is an existing User of the GNS.

GasNet is not required to provide any services or take any steps that are inconsistent with or adversely affect the performance of:

- (a) GasNet's obligations under the Service Envelope Agreement; or

(b) VENCORP's obligations under the Service Envelope Agreement.

3.5 Availability of Service Envelope Agreement

From the commencement of this Access Arrangement Period, GasNet will make the Service Envelope Agreement, as in force from time to time available on its website, www.gasnet.com.au.

The definition in clause 9.1 of 'VENCORP Services' has been changed to read 'VENCORP Reference Services'. 'Reference Service' is now defined as having 'the meaning given in the Code'. 'Tariffed Transmission Service' is defined in clause 9.1 as 'making available the GNS on the same terms as those set out in the Service Envelope Agreement'.

Commission's assessment

Section 3.1 of the Code provides that an access arrangement must include a services policy. A services policy must comply with the principles in section 3.2 (in particular, paragraph (a)).

The Commission notes that while GasNet has changed clause 3.2 to state that GasNet will make a 'single Reference Service comprising the Tariffed Transmission Service' available, it does not require GasNet to make the GNS available to VENCORP in accordance with the SEA and MSOR. This matter was also raised by VENCORP in a letter to the Commission dated 16 December 2002. GasNet has informed the Commission that the reason why the MSOR is not mentioned in the definition of the reference services is that it relates more specifically to the terms and conditions rather than the description of the service itself. The terms and conditions of the service are set out in clause 3.3 and discussed under Amendment 44 in this Final Approval.

VENCORP also raised the following issues in relation to GasNet's amended revisions:

- under clause 3.1 of the amended revisions, it is stated that 'VENCORP has the direct legal relationship with Market Participants regarding access to the GNS' however GasNet also has some direct legal relationship with market participants; and
- GasNet's departure from the exact wording contained in Amendments 43 and 44.

The second issue raised by VENCORP is also discussed under Amendment 44 in this Final Approval. In relation to the first additional issue, the Commission recognises the point raised by VENCORP but as clause 3.1 is introductory in nature, does not consider further clarification is necessary.

The Commission did not require or otherwise suggest in its Final Decision that GasNet provide the clarification of its existing contractual obligations in clause 3.4 of its amended revisions. The Commission understands that GasNet's rationale for including clause 3.4 is to make clear the obligations on both GasNet and VENCORP under the SEA and to acknowledge that VENCORP is an existing user of GasNet's transmission system.

The Commission is satisfied that GasNet's amended revisions address Amendment 43.

2.2.2 Terms and conditions

Amendment 44

Amendment required

GasNet must amend clause 8.1 of its revised access arrangement, terms and conditions, to state that the terms and conditions on which GasNet supplies the services to VENCORP are set out in the SEA and the MSOR in force from time to time. Clause 8.1 must also state that GasNet will make the SEA, as in force from time to time, publicly available.

GasNet's response

Clause 8.1 of GasNet's revised access arrangement submitted on 28 March 2002 stated:

Consistent with section 10.2 of the Code, responsibility for complying with the obligations imposed by section 3.6 of the Code is allocated to VENCORP

Clause 8.1 has been deleted in the amended revisions. Clause 3.3 of the amended revisions has been changed to state that the terms and conditions on which GasNet will supply the Tariffed Transmission Service are the same as those set out in the SEA and the MSOR.

A new clause 3.5 has been inserted into the amended revisions which provides that GasNet will make the SEA, as in force from time to time, available from its website.

Commission's assessment

VENCORP has expressed concern that the amended revisions do not incorporate the exact wording used by the Commission in Amendments 43 and 44. In the case of Amendment 44, GasNet has clarified, in an email dated 3 January 2003 to the Commission that, the use of the phrase 'are the same as' rather than 'as set out in' is intended to maintain the generality of the concept of a reference service (that is, available to anyone). GasNet asserts that this is appropriate despite the fact that the actual contract with VENCORP has the effect of excluding other parties from receiving the reference service.

The Commission is satisfied that GasNet's amended revisions address Amendment 44.

2.2.3 Trading policy

Amendment 45

Amendment required

GasNet must amend clause 8.3 of its revised access arrangement to remove the current purported allocation of responsibility of a trading policy to VENCORP.

GasNet's response

Clause 8.3 of GasNet's revised access arrangement previously stated:

Trading Policy

Consistent with section 10.2 of the Code, responsibility for complying with the obligations imposed by sections 3.9 to 3.11 of the Code is allocated to VENCORP.

GasNet has deleted clause 8.3 in its amended revisions.

Commission's assessment

The Commission is satisfied that GasNet's amended revisions incorporate Amendment 45.

2.2.4 Other non tariff issues

The Final Decision did not specify any amendments to GasNet's:

- capacity management policy;
- queuing policy;
- extensions and expansions policy; or
- review and expiry provisions.

The Commission is satisfied that, in relation to the above elements of section 3 of the Code, GasNet's amended revisions do not vary from the revisions that it proposed on 28 March 2002.

2.3 Conclusion

The Commission is satisfied that the amended revisions submitted by GasNet on 6 January 2003 incorporate or otherwise address the amendments specified by the Commission in its Final Decision other than Amendments 12, 13, 20, 26, 29 and 30.

As set out in section 2.1 of this Final Approval:

- GasNet's amended revisions do not incorporate Amendments 12, 13, 20, 26, 29 and 30;
- the Commission is not satisfied that the reference tariffs in GasNet's amended revisions comply with the reference tariff principles described in section 8 of the Code; and
- therefore the Commission is not satisfied that GasNet's amended revisions otherwise address the matters identified by the Commission in its Final Decision as being the reasons for requiring Amendments 12, 13, 20, 26, 29 and 30.

Accordingly, as required by section 2.41(c) of the Code, the Commission has decided (the further final decision) not to approve the amended revisions.

3. Commission's revised access arrangement

Under section 2.42 of the Code, where the Commission does not approve the amended revisions submitted by the service provider, the Commission must draft and approve its own amended revisions to the access arrangement.

For the reasons outlined in chapter 2 of this Final Approval, the Commission has drafted and approved its own amended revisions to incorporate the following Amendments:

- Amendment 12: Expected inflation – the Commission has adopted an adjustment for expected inflation of 2.16 per cent for each year of the second access arrangement period;
- Amendment 13: CAPM parameters – the Commission has adopted an equity beta of 0.97, asset beta of 0.5 and debt beta of 0.18 and set the risk free rate by reference to five year Commonwealth bonds (reflecting the access arrangement period);
- Amendment 20: Capital raising costs – the Commission has included an allowance of 12.5 basis points in the debt margin for debt raising costs;
- Amendment 26: Non-capital costs – the Commission has included an allowance of \$22 000 for asymmetric risks;
- Amendment 29: Forecast capital expenditure – the Commission has applied an adjustment for expected inflation of 2.16 per cent for each year of the second access arrangement period when determining the forecast capital expenditure; and
- Amendment 30: Depreciation – the Commission has calculated depreciation using the rate of return and inflation specified in the Final Decision.

The Commission's revisions provide for average annual benchmark revenue of \$77.0 million whereas GasNet's amended revisions provide for \$81.9 million. Consequently, most of the tariffs in Schedule 1 of the approved revised access arrangement are different to (lower than) those proposed by GasNet. There are some exceptions where the tariffs are the same, predominantly because they are prudent discounts based on the estimated cost of bypass. These exceptions are:

- the tariff for injection at Port Campbell and withdrawal in the Western zone or at the Port Campbell to Adelaide Pipeline;
- the tariff for injection at Dandenong;
- the tariffs for withdrawal at the LaTrobe and Western zones;
- the system export tariff;
- the transmission refill tariff;
- the withdrawal tariff D for Wodonga withdrawals of gas injected at Culcairn;
- the withdrawal tariffs for Metro South East matched to Pakenham injections; and
- the withdrawal tariffs to apply for Warrnambool and Koroit in the context of a bypass threat from the Port Campbell to Adelaide Pipeline.

As well as the majority of tariffs, the ATT values for 2004 to 2007 differ as does the PPT factor (both found in clause 4.4 of Schedule 4 to the access arrangement).

Otherwise, the Commission has adopted the amended revisions submitted by GasNet on 6 January 2003.

The revised access arrangement for GasNet approved by the Commission on 15 January 2003 is available from the Commission's website at www.accc.gov.au (under 'Gas').

4. Access arrangement information

At the time proposed revisions to an access arrangement are submitted, the service provider must also submit revised access arrangement information (section 2.28 of the Code). If the access arrangement information does not meet the requirements of sections 2.6 and 2.7, the regulator may require the service provider to change the access arrangement information (section 2.30). Sections 2.6 and 2.7 require the access arrangement information to:

- contain such information as would enable users and prospective users to understand the derivation of the elements in the proposed access arrangement and to form an opinion as to the compliance of the access arrangement with the Code; and
- include the categories of information described in Attachment A of the Code.

The Commission's assessment process of the access arrangement information submitted by GasNet in conjunction with its initial proposed revised access arrangement is set out in chapter 9 of the Final Decision.

4.1 Final Decision

The Final Decision required the following changes to GasNet's access arrangement information.

Amendment 39

Amendment required

GasNet must amend section 3.5 of the access arrangement information to include actual historical operations and maintenance costs for each of the years 1998 to 2001, and current best estimates for 2002.

GasNet's response

Table 3-6A in clause 3.5 of the revised access arrangement information submitted by GasNet on 6 January 2003 provides the following data:

Table 3-6A: Operating costs 1998-2002

Year	1998	1999	2000	2001	2002 ^a
\$ million	16.97	14.14	11.86	13.26	18.25

Note: (a) Estimated actual 2002 costs.

The figures for 2001 and 2002 have respectively been revised downwards by \$0.64 million and \$0.30 million compared with previous estimates provided by GasNet.

Commission's assessment

The Commission is satisfied that GasNet's revised access arrangement information complies with Amendment 39.

Amendment 42

Amendment required

GasNet must amend section 6 of its access arrangement information to include operations and maintenance costs/km/PJ data in its comparison of Australian KPIs.

GasNet's response

As part of GasNet's comparison of Australian key performance indicators, Table 6-5A in clause 6.1 of the revised access arrangement information submitted by GasNet on 6 January 2003 sets out the following operations and maintenance costs/km/PJ data:

Pipeline system	Operations and maintenance costs/km/PJ
	\$/km/PJ
GNS	40
Moomba-Sydney	67
Dampier-Bunbury	80
Moomba-Adelaide	111
Amadeus Basin	268
Goldfields	303
Parmelia	469
Central West	2 700

Source: GasNet revised access arrangement information, 6 January 2003, p. 38.

Commission's assessment

The Commission is satisfied that GasNet's revised access arrangement information complies with Amendment 42.

Supplementary access arrangement information

The Commission noted in chapter 9 of its Final Decision that certain information needed to satisfy the requirements of section 2.6 of the Code was only publicly available from GasNet's submission of 27 March 2002. GasNet lodged supplementary access arrangement information on 6 December 2002 in response to these concerns.

4.2 Commission's revised access arrangement

In chapter 2 of this Final Approval, the Commission concluded that GasNet's amended revisions did not incorporate or otherwise address the following six Final Decision amendments:

- Amendment 12: Inflation;
- Amendment 13: CAPM parameters – equity beta, asset beta, debt beta and risk free rate;
- Amendment 20: Capital raising costs – debt margin allowance for debt raising costs;
- Amendment 26: Non-capital costs – allowance for asymmetric risks;
- Amendment 29: Forecast capital expenditure due to inflation; and
- Amendment 30: Depreciation due to inflation and rate of return.

As set out in chapter 3 of this Final Approval, the revised access arrangement approved by the Commission incorporates the above amendments. Accordingly, the revised access arrangement information submitted by GasNet on 6 January 2003 is not consistent with the approved access arrangement.

The Commission has revised GasNet’s access arrangement information of 6 January 2003 so that it is consistent with the above amendments. The differences between the Commission’s and GasNet’s proposals all impact on revenue. Consequently, the Commission has revised:

- Tables 3-1, 3-4, 3-4A, 3-6,⁵⁸ 3-7, 3-8, 3-9, 3-10, 3-11 and 3-12; and
- certain prudent discounts in clause 5.11.

The Commission has made certain editorial changes but has not deleted any of GasNet’s arguments contained within the access arrangement information. Where relevant, the Commission’s disagreement with these arguments is noted in the GasNet Final Decision.

The revised access arrangement information (with the supplementary access arrangement information provided by GasNet on 6 December 2002) is available, along with the approved access arrangement, from the Commission’s website:
<http://www.accc.gov.au>.

⁵⁸ For total operating costs for 2006, Table 3-6 of the access arrangement information of 6 January 2003 has \$21.4 million while Table 3-5 has \$21.2 million. The Commission’s analysis indicates that the modelling provided by GasNet supports the figure in Table 3-5 and GasNet has confirmed that the figure in Table 3-6 should be \$21.2 million. The Commission has changed the total to \$21.2 million in Table 3-6.

5. Final approval

5.1 Further final decision

For the reasons expressed in chapter 2 of this Final Approval and in the Final Decision, pursuant to section 2.41(c) of the Code, the Commission does not approve the amended revisions submitted by GasNet on 6 January 2003.

5.2 Revised access arrangement

As a result of this decision, the Commission is required under section 2.42 of the Code to draft and approve its own amended revisions. The revised access arrangement approved by the Commission on 15 January 2003 is available from the Commission's website: <http://www.accc.gov.au>.

5.3 Commencement date

Section 2.48 of the Code provides that a decision made by the Commission under section 2.42 is subject to review by the Australian Competition Tribunal under the Gas Pipelines Access Law. For this reason, an access arrangement drafted and approved by the Commission cannot commence for at least 14 days after the decision to approve it is made.

The Commission's decision under section 2.42 was made on 15 January 2003 and published on 17 January 2003. Subject to the Code and the Gas Pipelines Access Law, the revised access arrangement drafted and approved by the Commission for the GNS commences on 1 February 2003.

5.4 Documents

Copies of the revisions applications and associated documents are available (subject to confidentiality restrictions) from the Commission's website (www.accc.gov.au) and placed on the public registers held by the Commission and the Code Registrar. Copies of this Final Approval may also be obtained from the Commission by contacting Ms Hema Berry on telephone (02) 6243 1233, fax (02) 6243 1205 or e-mail: hema.berry@acc.gov.au. Copies of the revisions applications on computer disk can also be obtained from Ms Berry.

Appendix 1

Table A.1 below cross-references each amendment specified in the Final Decision with its location (page number) in that document and in this Final Approval.

Table A.2 cross-references each amendment according to its topic (chapter location) in this Final Approval.

Table A.1: Amendments by page number

Number	Topic	Final Decision	Final Approval
1	Redundant capital policy	32	12
2	Zone changing mechanism	33	51
3	Pass through mechanism	35	45
4	Pass through mechanism: relevant tax	36	48
5	Pass through mechanism: assessment process	37	48
6	Pass through mechanism	38	49
7	Pass through mechanism: assessment process	38	50
8	Roll forward of the asset base	47	8
9	Roll forward of the asset base: indirect assets	48	8
10	Roll forward of the asset base: inflation	48	9
11	Southwest Pipeline	66	9
12	Expected inflation	89	12
13	CAPM parameters	118	17
14	O&M: litigation costs	132	29
15	O&M: inflation	132	29
16	O&M: gas chromatographs	133	30
17	O&M: allocation of total costs	134	30
18	O&M: insurance costs	135	31
19	O&M: regulatory review costs	137	31
20	O&M: capital raising costs	151	32
21	K factor under-recovery	159	51
22	K factor: rebalancing control formula	160	52
23	K factor: Southwest Pipeline adjustment	162	52
24	K factor: Murray Valley Pipeline adjustment	163	53
25	Self insurance	165	37
26	Allowance for asymmetric risks	174	38
27	Return on linepack and spare parts	175	10
28	Forecast capital expenditure	182	10
29	Forecast capital expenditure	183	11

30	Depreciation	191	28
31	Return on forecast capital expenditure	194	11
32	Supply from Yolla	206	53
33	Allocation of the K factor under-recovery	230	53
34	Allocation of capital raising costs	230	54
35	Bypass threat credibility	232	55
36	Murray Valley tariffs	235	55
37	Tariff path	245	55
38	Annual tariff assessment process	245	56
39	Historical operations and maintenance costs	263	74
40	Future benefit sharing allowance	285	57
41	First period benefit sharing allowance	288	60
42	Additional KPI	297	75
43	Services policy	303	68
44	Terms and conditions	307	70
45	Trading policy	316	70

Table A.2: Amendments by topic

Chapter	Topic	Final Decision amendment number
1	Introduction	
2	Assessment of amended revisions	
2.1	Reference tariffs and reference tariff policy	
2.1.1	Capital base	8, 9, 10, 11, 27
2.1.2	Capital expenditure	28, 29, 31
2.1.3	Capital redundancy	1
2.1.4	Rate of return	12, 13
2.1.5	Depreciation	30
2.1.6	Non-capital costs – operations and maintenance expenditure	14, 15, 16, 17, 18, 19
2.1.7	Non-capital costs – capital raising costs	20
2.1.8	Non-capital costs – asymmetric risk allowance	25, 26
2.1.9	Non-capital costs – pass through events	3, 4, 5, 6, 7
2.1.10	Reference tariffs	2, 21, 22, 23, 24, 32, 33, 34, 35, 36, 37, 38
2.1.11	Incentives	40, 41
2.1.12	Transitional Tariff Component	
2.1.13	Compliance with reference tariff principles	
2.2	Non tariff issues	
2.2.1	Services policy	43
2.2.2	Terms and conditions	44
2.2.3	Trading policy	45
2.2.4	Other non tariff issues	
2.3	Conclusion	
3	Commission's revised access arrangement	
4	Access arrangement information	39, 42
5	Final approval	