

# Response (No 3) to Submissions on ACCC Issues Paper - GasNet Australia

Dated 24 July 2002

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## 1 Introduction

### 1.1 Background

On 27 March 2002, GasNet lodged with the Commission its proposed Access Arrangement and Access Arrangement Information for the period commencing 1 January 2003, together with a detailed submission (“**Submission**”) in support of its proposed Access Arrangement.

On 19 April 2002 the Commission published its issues paper relating to the proposed GasNet Access Arrangement and the proposed VENCORP Access Arrangement. As part of that issues paper, the Commission invited public submissions in relation to these Access Arrangements.

On 12 June 2002, GasNet lodged a response to the public submissions which had been received on or before 3 June 2002 (“**First Response**”). On 17 July, GasNet lodged a further response to public submissions lodged by TXU, Energy Advice and Exxon Mobile (“**Second Response**”).

### 1.2 Public Submissions

This Response addresses issues raised in the following public submissions to the Commission:

- (a) BHP Billiton dated 21 June 2002 (including legal advice from Allens Arthur Robinson and a report on GasNet’s WACC proposals by Pareto Associates (“**BHP Billiton Submission**”); and
- (b) Amcor Paperlinx Submission dated June 2002 (“**Amcor Paperlinx Submission**”).

The BHP Billiton Submission and the Amcor Paperlinx Submission raise similar issues. In responding to specific points, GasNet has generally referred to the BHP Submission. However, each response is intended to also cover the issues raised by Amcor Paperlinx. In some cases, GasNet has responded to Amcor Paperlinx alone, where a similar point has not been raised by BHP Billiton.

GasNet reserves the right to make further submissions in relation to these or any other public submissions.

### 1.3 Terminology

Given the complexity of the gas industry, a number of the participants have used different expressions and definitions, even in relation to the same issues. For simplicity, this Response adopts the conventions established in GasNet’s Submission, in particular the glossary in section 11.1 of the Submission.

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## **2 Reference Service Proposal**

### **2.1 Summary of GasNet Proposal**

In its Access Arrangement and Submission, GasNet described its proposals in relation to the Services Policy. The key elements of GasNet's proposal are as follows.

- (a) As the GNS is a market carriage system, Users and Prospective Users of the GNS are offered a single consolidated Reference Service comprising the transportation of gas through the GNS via the Market Carriage system under the MSO Rules (which is, in effect, a combination of the availability of the GNS, which VENCORP sources from GasNet under the Service Envelope Agreement, and the market and system operation services provided by VENCORP).
- (b) VENCORP, as operator of the GNS under the MSO Rules, is responsible for the provision of the Reference Service.
- (c) For the purpose of Reference Tariff calculation, the Reference Service comprises two components:
  - (i) the VENCORP Services, which VENCORP provides itself (these are dealt with in the VENCORP Access Arrangement); and
  - (ii) the Tariffed Transmission Service, being the benefit of the availability of the GNS. In order to provide this component, VENCORP relies on the Service Envelope Agreement with GasNet.

### **2.2 Issues raised in submissions**

#### *Terms and conditions*

BHP Billiton expressed concern that GasNet has a high level of protection from disgruntled users in the event of poor performance. This is said to arise because GasNet is not offering a Reference Service with its associated terms and conditions, which would otherwise provide some recourse to users. This concern is said to be magnified by the fact that VENCORP, as the Service Provider, bears no liability for its actions.

BHP Billiton also suggests that there is confusion in having multiple terms and conditions and that a common set of terms and conditions should be offered to users.

### **2.3 GasNet's response**

#### *Terms and conditions*

Users have a contractual relationship with VENCORP via the Gas Transportation Deed which reflects the fact that VENCORP, and not GasNet, is the Service Provider. GasNet seeks to reflect these contractual arrangements in the revised Access Arrangement.

However the fact that GasNet is not in a direct relationship with users does not mean that GasNet bears no liability in the event of poor performance. The Service Envelope Agreement and the MSO Rules specify the liabilities faced by GasNet in the event of a system failure attributable to GasNet. For example, under section 3.6.8 of the MSO Rules, GasNet is exposed to uplift payments in circumstances where it has failed to comply with its obligations under the Service Envelope Agreement.

The current Access Arrangement does not provide users with the terms or conditions of supply. The terms and conditions on which users obtain the Reference Service are those set out in the MSO Rules. The GasNet Access Arrangement describes the rules for coverage of expansions and extensions, but the terms and conditions applying to an expansion or extension, if covered, are those set out in the MSO Rules.

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### **3 Inclusion of SWP**

#### **3.1 Summary of GasNet's proposal**

GasNet proposes to increase its Capital Base from 1 January 2003 to include the capital costs associated with the SWP by employing the economic feasibility test in the Code. GasNet has proposed a stand-alone tariff that recovers the actual capital costs over the life of the SWP.

#### **3.2 Issues raised in submissions**

##### *Cross subsidisation*

BHP Billiton and Amcor Paperlinx expressed concern about the allocation of costs on the SWP and suggested that there was the potential for cross subsidisation.

##### *K-factor*

BHP Billiton suggest that the K-factor carryover provision permitted for the total revenue base should be allocated to the SWP in proportion to the values of the asset base and any SWP K-factor carry over should only be recovered from future SWP tariffs.

##### *Tariff structure*

BHP Billiton suggest that the SWP tariff should reflect the fact that there is likely to be as much "backhaul" as "forwardhaul" on the SWP. BHP Billiton also notes that gas sent to a customer withdrawal point from Longford via the underground storage will only pay one injection charge rather than the Longford injection charge plus the Port Campbell injection charge. BHP Billiton suggest that this is not a cost reflective approach and all usage on the SWP should incur an appropriate charge, regardless of flow direction and the assumed later use of the gas.

##### *Forecast flows*

Amcor Paperlinx disputes the forecast of flows on the SWP. They note that the Minerva field is committed to supply South Australia and that the new

discoveries at Thylacine and Geographe are unlikely to be developed before 2008.

### **3.3 GasNet's response**

#### *Cross subsidisation*

GasNet has segregated the capital cost, on-going capital expenditure and the incremental operating costs of the SWP from the rest of the system and calculated an injection tariff to recover these costs. This procedure is consistent with the economic feasibility test used to justify the roll-in of the asset.

#### *K-factor*

Issues relating to the application of the K-factor to the SWP have been addressed at length in the Second Response.

#### *Tariff structure*

BHP Billiton appear to suggest that there is no back-haul tariff on the SWP. In fact, a cross-system tariff applies if gas flows from Lara to Iona and a withdrawal tariff applies to withdrawals from the SWP itself.

BHP Billiton is correct when it notes that gas sent to a customer withdrawal point from Longford via the underground storage will only pay one injection charge rather than the Longford injection charge plus the Port Campbell injection charge. However, this occurs because the storage is refilled from Longford injections during the summer, when the Longford injection tariff does not apply. This tariff design is cost-reflective.

#### *Forecast flows*

GasNet understands that the Minerva field is committed to supply consumers in South Australia. However, the sources that could supply Victoria from the Otway basin include:

- (a) the 10% share of Minerva owned by Santos;
- (b) the Santos on-shore fields; and
- (c) the recently discovered off-shore Thylacine and Geographe fields.

GasNet has forecast first flows from Thylacine and Geographe in 2006, which is consistent with press reports. GasNet does not agree with the Amcor Paperlinx view that, based on the experience of the Minerva field, new fields require more than five years to develop. The development of the Minerva field is not an appropriate benchmark as GasNet understands that there were other considerations that have led to the delay in the development of Minerva which are unrelated to the technical issues.

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## 4 Tariff Design

### 4.1 Summary of GasNet's proposal

GasNet proposes to retain the Cost of Service Methodology for revenue determination, which is the methodology used in the current PTS and WTS Access Arrangements. Under this approach, the revenue to be generated from the sales (or forecast sales) of all services over the regulatory period is, subject to the Code, equal to the costs (or forecast costs) of providing all the services, where the costs in this instance includes a return to capital. In addition, GasNet proposes to retain the existing "price path" form of regulation.

The proposed discounted weighted average tariff to apply over 2003 to 2007 shows an increase of 11%<sup>1</sup> in real terms over the 2002 published tariffs. This increase is due primarily to:

- (a) an increase in the underlying WACC parameters;
- (b) rectification of errors in the Capital Base;
- (c) the carry-forward of the accumulated K-factor carryover relating to the First Access Arrangement Period; and
- (d) the benefit sharing allowance arising from efficiencies made in the First Access Arrangement Period.

GasNet proposes injection tariffs levied on the 10 peak injection days and withdrawal tariffs based on volumes delivered. A separate tariff is proposed for each of the five injection zones and for each of the 14 withdrawal zones. Within each withdrawal zone there are separate tariffs for Tariff V and Tariff D customers. GasNet is also proposing a new storage refill tariff, a cross system withdrawal tariff, matched withdrawal tariffs and prudent discounts for customers in certain geographical locations.

### 4.2 Issues raised in submissions

#### *Removal of peak withdrawal charges*

BHP Billiton believes that the removal of peak withdrawal charges does not send the appropriate signal to users to reduce their demand at times of constraint. It is noted that contract carriage regimes typically employ strong peak price signals in their tariffs.

#### *Charging of overheads*

BHP Billiton also believes that the charging of overheads on an annual volume basis is not appropriate. A variety of cost drivers are suggested for each component of overhead costs.

<sup>1</sup> This excludes the SWP which is charged on a stand alone basis.



### ***K-factor***

BHP Billiton queries the use of the K-Factor as a Fixed Principle for the next Access Arrangement period.

Amcor Paperlinx suggest that the K-factor price control model allows GasNet to recover revenue shortfalls if annual demand is less than forecast.

## **4.3 GasNet's response**

### ***Removal of peak withdrawal charges***

The removal of peak price signals for withdrawals is justified by the absence of significant constraints on the system. There is no economic value in encouraging users to reduce peak demand when there is spare capacity. If transmission constraints do develop, the cost of congestion is signalled to users through the charging of uplift costs and the risk of curtailment.

Contract carriage regimes typically levy a charge on shippers for the reservation of capacity, which implies that the charges are weighted to the shipper's peak requirements. However, shippers can also purchase interruptible contracts which are tantamount to firm contracts when there is significant spare capacity on a pipeline. Interruptible contracts are usually charged as a flat rate per GJ. Hence, even in contract carriage regimes, the peak price signal can be muted or absent when there is significant spare capacity.<sup>2</sup>

### ***Charging of overheads***

With respect to the charging of overhead costs, GasNet has employed an annual volume charge because of its simplicity and because it is consistent with the current tariff methodology. There are no obvious or reasonable cost drivers for overhead costs. However, GasNet recognises that this approach has an impact on end-users with high load factors, as pointed out in the BHP Billiton Submission. GasNet also notes that VENCORP charges a differential commodity rate for Tariff-V and Tariff-D customers to recover VENCORP overhead costs. GasNet is not wedded to a straight annual volume tariff for all users for the recovery of overheads and would be willing to consider a differential overhead rate for Tariff-D and Tariff-V as VENCORP has proposed for its own tariff.

### ***K-factor***

With respect to the K-Factor issue, GasNet has provided a detailed commentary in the Second Response.

In response to the comments made by Amcor Paperlinx, it appears that Amcor Paperlinx has incorrectly interpreted the GasNet price control model as a pure revenue cap. The K-Factor price control model exposes GasNet to revenue shortfalls if annual demand is less than forecast. GasNet cannot recover this lost revenue from the K-Factor.

<sup>2</sup> A similar argument applies to contracted but unused capacity which is sold in a secondary market.

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## **5 Asset lives**

### **5.1 Summary of GasNet's proposal**

The economic lives for the majority of the system assets are consistent with the estimates made for the First Access Arrangement Period. However, the SWP is accorded a longer life reflecting the recent construction date and the anticipated long-term value of a connection between the metropolitan area and WUGS. Also, the economic life of the Longford pipeline has been reduced slightly consistent with recent forecasts of the effect of the growth of interstate exports on the depletion of Bass Strait reserves.

### **5.2 Issues raised in submissions**

#### *Life of Longford pipeline*

BHP Billiton disputed the reduction in the life of the Longford pipeline and suggested a life of 2040 would be more appropriate,

#### *Life of SWP*

BHP Billiton believe the SWP will have a minimal life and certainly no more than the rest of the system. It claims that the pipeline will have low utilisation and that the underground storage will not be required to "stabilise" the system when new gas supplies come from the north or west.

#### *Technical life*

BHP Billiton assert that the technical life of GasNet's pipelines is longer than the quoted 60 years.

### **5.3 GasNet's response**

#### *Life of Longford pipeline*

GasNet commissioned Saturn Resources to provide updated estimates of the economic life for the GasNet system. Its approach was to consider the possible economic, gas supply and market factors that could impinge on the economic life of GasNet pipelines. The Longford pipeline was given separate treatment because of its unique reliance on Bass Strait reserves.

The main factor limiting the life of the Longford pipeline is the depletion of the gas reserves in Bass Strait. Without this constraint, the economic life of the pipeline would extend to approximately 2030. BHP Billiton believe that GasNet has underestimated the extent of Bass Strait reserves, which they claim would support a longer life for the Longford pipeline. In support of this position, it is stated that the Eastern Gas Pipeline (EGP) and the Tasmanian pipeline would not be economic over a 22 year life (implying that the pipeline owner must have had some confidence that additional reserves exist), and that there are plans for further exploration in Bass Strait.

The calculation of the depletion date for Bass Strait is subject to many uncertainties, principally the actual reserves in Bass Strait and the volumes of exports to New South Wales and Tasmania. Saturn Resources has used a methodology which assigns probability distributions to each of the main

economic, market and reserves factors and on this basis, determines the most likely economic life for the pipeline.

GasNet has conducted a high level verification of the Saturn Resources Report, by setting up a simple deterministic model of reserve depletion in Bass Strait. We have used the long-term gas demand forecasts provided to us by VENCORP<sup>3</sup> and made the following assumptions about exports and imports to Victoria:

- (a) NSW exports grow to 50% of NSW demand (as forecast by ABARE), capped at 90 PJ<sup>4</sup> per annum,
- (b) Tasmania exports grow to 30 PJ per annum, and
- (c) Otway basin, Bass basin and Culcairn provide up to 55 PJ/annum into Victoria.

The results are shown in the table contained in Schedule 1. They demonstrate that the published proved and probable reserves are depleted in 2021 and that the enhanced reserves (an additional 3600 PJ of hypothetical undiscovered reserves assumed by Saturn Resources) are depleted in 2027. Based on this verification, the probabilistic result from Saturn Resources of 2023 is reasonable.

BHP Billiton suggest that the New South Wales and Tasmania pipelines would not have been constructed if the reserves were expected to be depleted by 2023. However, BHP Billiton assumed that the EGP would capture only 25% of the NSW load. Under this assumption, the EGP would not be economic, even though the period of operation of the pipeline would be extended given the later depletion date of Bass Strait. The EGP was constructed so that it could be developed to at least 90 PJ per annum, which is 50 % of the New South Wales demand by 2012, and it is reasonable to believe it was their intention to capture this load. GasNet has no reason to believe the New South Wales and Tasmania pipelines are uneconomic over a 22 year remaining life.

BHP Billiton also states that there is an exploration program underway in Bass Strait to find new gas reserves. However GasNet does not accept that the financial viability of a regulated pipeline asset should be subject to the outcome of a gas exploration program (as discussed in GasNet's Second Response). A gas exploration and production company is, by its nature, speculative, and it relies on the prospect of unregulated returns in the future as compensation for the high risks of exploration. It is inappropriate to impose those same risks on a regulated asset.

<sup>3</sup> The VENCORP forecast differs by only one year's growth from the ABARE forecast (ABARE 2014/5 346 PJ, VENCORP 2015/6 344 PJ).

<sup>4</sup> Amcor states that the EGP capacity is only 65 PJ per annum. This is the uncompressed capacity. The Paperlinx pipeline can carry at least 90 PJ per annum with two in-line compressors, which would be installed when the load grows over 65 PJ per annum.

### *Life of SWP*

The high potential utilisation of the SWP has been demonstrated in GasNet's Submission. As noted in the Second Submission gas flows have exceeded 200 TJ/day in 2002.

With respect to the long term utilisation of the Iona underground storage, GasNet believes that the value of a storage will increase in the future, since new sources of gas are likely to be supplied at high load factors, and a peaking supplier such as underground storage will have a high value. BHP Billiton's discussion of "stabilising flows" appears to misunderstand the way that storage is used. While the underground storage has some value by providing a western injection source to balance the predominant eastern injections, its main value is its ability to top-up demand on peak days, which is not economically supplied by large capacity pipelines. The value of the storage as a peak supply source is independent of whether the gas supply is from the east or the west.

### *Technical life*

Saturn Resources contracted GHD to review the assumptions underlying the technical life. GHD have confirmed that there was no reason to change the previous estimate of 60 years.

BHP Billiton points to a decision from SAIPAR that the life of protected steel pipelines in the Envestra network is 120 years. This decision was made in the context of establishing the initial capital base for Envestra. However, GasNet believes this is an unrealistic assumption. Cathodically protected pipelines have not yet been in existence for 60 years, and therefore, it is inappropriate to assign a life of 120 years. In addition, as time goes on, new and unanticipated modes of pipeline failure could emerge. An historical example is the emergence of stress corrosion cracking as a problem. On this basis, GasNet considers that it is appropriate to take a more prudent approach to technical life.

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## **6 Capital Base**

### **6.1 Summary of GasNet's proposal**

For the purpose of calculating the Capital Base for the commencement of the Second Access Arrangement Period, GasNet proposes to include certain assets (including easements) which were included in the original GHD valuation but were excluded from the Capital Base determined by the Commission.

### **6.2 Issues raised in submissions**

#### *Excluded assets*

BHP Billiton has challenged GasNet's proposal to include the "excluded assets" in the Capital Base. It has provided legal advice from Allens Arthur Robinson to support its view.

## **6.3 GasNet's response**

### *Excluded assets*

GasNet has dealt with this issue in detail in its Submission and in the First Response.

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## **7 Capital Expenditure**

### **7.1 Summary of GasNet's proposal**

The actual capital expenditure incurred by GasNet in the First Access Arrangement Period was \$199.6 million. A portion of this capital expenditure (\$40.4 million) relating to the Interconnect Assets, has already been incorporated into the Capital Base. GasNet proposes to include in its Capital Base an additional \$102.0 million (as spent) of the remaining capital expenditure. The GasNet Submission provides a detailed justification for the inclusion of these projects in the Capital Base.

GasNet has forecast recoverable capital expenditure of \$87.0 million (nominal) for the Second Access Arrangement Period. The main items of capital expenditure are the partial looping of the pipeline between the Brooklyn compressor station and Lara, the Gooding compressor station refurbishment and the Lurgi pipeline refurbishment.

### **7.2 Issues raised in submissions**

#### *Historical capital expenditure*

BHP Billiton notes that some capital expenditure projects have exceeded the forecast costs. It also requests an audit of the costs/benefits of each completed project.

#### *Forecast capital expenditure*

BHP Billiton has also requested a cost/benefit analysis of forecast capital expenditure and a full independent audit.

### **7.3 GasNet's response**

#### *Historical capital expenditure*

In order for capital expenditure to be rolled-in to the capital base, GasNet must pass the tests set out in section 8.16 of the Code, including section 8.16(a) which requires that expenditure must have been prudently incurred. GasNet has presented a detailed justification of the main historical investments in its Submission. GasNet considers that these investments meet the requirements of the Code.

The Code does not require that actual capital expenditure match the forecast capital expenditure, as implied by BHP Billiton. The Code only requires that the actual capital expenditure be prudently incurred, and where an expansion or extension is involved, that the additional tests set out in section 8.16 (b) are met.

BHP Billiton points out that certain small projects over-ran the original 1998 forecast (Table 5.4 of the GasNet Submission). However they do not note that general maintenance capital expenditure was significantly below forecast.

Within any large capital expenditure program, there will be projects that exceed budget and projects that come in below budget. It is inappropriate to suggest that the lower cost projects could be rolled-in but that the higher cost projects should be rejected. The projects identified in Table 5.4 of the Submission were costed in 1998, well in advance of their implementation. Each of these small projects was a one-off design unique to the specific assets. The original costings were made without the benefit of detailed design investigations, a process that would have incurred significant costs in its own right. Moreover, unlike most other projects which GasNet has designed and constructed, there was no past experience to guide GasNet on some of these small projects. Taking all the minor projects as a whole, GasNet has come reasonably close to the original forecast costings.

GasNet had a financial incentive to minimise these costs, since the benefit of lower capital expenditure during construction is greater than the benefit of a higher rolled-in value at the tariff reset. The fact that some isolated projects actually cost more than forecast is evidence that GasNet has not attempted to “game” the system. The ESC has stated that it does not believe it is necessary to audit historical capital expenditure because the incentive structures are in place to cause the pipeline company to act efficiently. GasNet believes this policy is also appropriate to its historical capital expenditure.

#### *Forecast capital expenditure*

All forecast capital expenditure, with the exception of the Brooklyn Loop, is required to maintain the existing level of services. As such, there is no incremental revenue associated with these projects and no realistic way to perform a cost/benefit analysis as suggested by BHP Billiton. With respect to the Brooklyn Loop, GasNet has provided a detailed model which justifies the roll-in of the Recoverable Portion of the expected capital expenditure.

GasNet has provided a detailed justification for each of the main capital expenditure projects in its Submission. The refurbishment projects are all costed at less than the Optimised Replacement Cost of the assets being refurbished. GasNet is willing for these costings to be independently examined if that is required. It should be noted that the Commission has adopted a policy of writing the asset base down at the next reset by the forecast level of depreciation on capital expenditure, rather than by the depreciation on the actual expenditures. This diminishes the incentive on GasNet to over-forecast capital expenditure in the next period.

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## **8 Operating costs and other non-capital costs**

### **8.1 Summary of GasNet's Proposals**

Over the Second Access Arrangement Period, GasNet's operating costs will remain relatively flat. However, there are some variations from year to year, particularly in relation to pipeline maintenance costs. GasNet has also

included an allowance of \$0.4 million to expand its general marketing activities.

## **8.2 Issues raised in submissions**

### *Operating costs*

BHP Billiton assert that GasNet should only be allowed operating costs which set “challenging targets for efficiency gains for the new arrangement”. It also questions why non-capital costs do not show continued efficiency savings following on from the significant reductions made over the current period.

### *Other non-capital costs*

BHP Billiton suggests that GasNet should not be compensated for some of the asymmetric risks identified by Trowbridge and that legitimate self insurance costs should be quarantined in a special account.

BHP Billiton also rejects the allowance provided by GasNet for capital raising costs.

## **8.3 GasNet’s response**

### *Operating costs*

As BHP Billiton observes, GasNet has made efficiency gains against the original Access Arrangement forecast. This justifies the retention of a share of these benefits in the next Access Arrangement period. The savings are particularly evident in the pipeline and compressor maintenance unit costs. In its Submission, GasNet has described the kinds of management initiatives that have led to these savings.

However, GasNet does not agree that it is reasonable to expect that additional savings can be projected into the next Access Arrangement period. GasNet has had a significant incentive to make the maximum efficiency savings during this period. It is unlikely that this level of savings can be made in the future, since efficiency gains must have diminishing returns to effort. Furthermore, all else being equal, it is more likely that operating costs will tend to increase over time. Firstly, physical assets require more attention as they age, and secondly, safety and environmental standards are more likely to increase than decrease over time.

Contrary to BHP Billiton’s assertion, it is not the task of the regulator to set GasNet a “challenging task” to meet operating cost targets. The regulator must approve the operating costs that would be incurred by a prudent and efficient operator. It is not prudent to relax safety or environmental standards, nor to maintain the system in an unsustainable fashion.

### *Other non-capital costs*

Trowbridge’s estimate of self insurance costs has taken account of GasNet’s existing insurance regime, and the identified gaps in that regime.

BHP Billiton’s appears to suggest that the self-insurance costs should be treated as a form of indemnity fund rather than as a risk-weighted cash flow

amount. GasNet considers that BHP's suggestion is an unwarranted interference in GasNet's management prerogatives.

GasNet has made an allowance for capital raising costs as a cashflow item because these costs are not recovered by the return on capital as calculated under the CAPM. The CAPM calculates the cost of capital using debt and equity betas, which are risk related measures of the correlation of company returns with the market as a whole. The CAPM does not provide for recovery of the transactional costs involved in raising debt or equity.

The Commission recognised this point in the Final Decision (Table 3.4). It noted that the debt premium contained an allowance of 50 basis points for the transactional costs of raising debt. GasNet's approach is consistent with this view. The only difference is that the transactional cost has been removed from the debt premium and placed in the cashflows, which is generally regarded as the correct procedure. GasNet has extended this argument to include an allowance for the transactional costs of raising equity, based on its own experience with the company float. The equity beta in the CAPM does not recover these costs, but they are unavoidable expenses required to fund a company. GasNet's proposal is to amortize the equity raising cost over 30 years. This is, in GasNet's opinion, a conservative assumption.

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## **9 Key Performance Indicators and Benchmarking**

### **9.1 Summary of GasNet's proposal**

GasNet adopted the following methods to demonstrate that its forecast operating costs are prudent.

- (a) First, GasNet's forecast operating costs have been compared against a range of statistics collected from published data of other Australian pipeline companies.
- (b) Second, GasNet commissioned a benchmarking report from international consulting firm Cap Gemini which compares GasNet's operating costs with a wide range of Australian and overseas companies.

### **9.2 Issues raised in submissions**

#### ***KPIs***

BHP Billiton suggested that the Commission should reject GasNet's claims for a number of costs to be excluded from its KPI analysis. In particular, it questioned the exclusion of fuel gas costs, insurance costs, regulatory reset costs, return on working capital and listing and governance costs.

BHP Billiton also suggested that VENCORP and GasNet should be required to provide calculations of combined costs and these costs should then be compared with local and international best practice.



## ***Benchmarking***

BHP Billiton advocated international benchmarking to compliment benchmarking against Australian companies. It was suggested that the GasNet unit costs fail to provide meaningful benchmarks and a range of alternative measures was suggested.

### **9.3 GasNet's response**

#### ***KPIs***

GasNet has provided a set of broad KPIs using data from other Australian transmission companies. This data was obtained from the published Commission Draft and Final Decisions for each company. The approved costs for the year 2003 were selected from the most recent decision for each company, adjusted for differences in inflation. These were compared to the forecast costs for GasNet for 2003, with the following adjustments.

- (a) Compressor fuel was omitted, as other Australian transmission companies do not purchase fuel, but take compressor fuel requirements from the shipper's gas flows.
- (b) Working Capital was omitted, as GasNet must supply passive linepack at market rates.
- (c) An allowance of \$0.6m is added to GasNet costs to cover the cost of a gas control room, capable of providing a control function comparable to other transmission companies operating under a contract carriage regime (this amount takes into account the fact that GasNet already owns and operates a gas control room and the associated equipment for telemetering of gas pressures and flows, albeit that the majority of these costs are allocated to non-transmission activities such as the LNG and metering function).
- (d) An amount of \$1.1 m is deducted from GasNet costs to allow for the recent extraordinary increase in insurance premiums, an amount which would not yet be present in the approved costs in the Access Arrangements of other Australian companies. The base insurance costs were included in GasNet's forecasts and in the companies benchmarked.

GasNet has included listing expenses in its costs for the purpose of the KPIs. Listing costs have been identified as "exceptional" because they are additional costs not previously incurred, and it is necessary to understand this in order to evaluate the trends in operating costs provided by GasNet. However they are retained in the inter-company comparisons in the KPIs.

GasNet is limited in the range of KPIs it can provide since the requisite benchmarking data is not available. However the international benchmarking study had access to confidential company data, and a reasonable range of measures have been presented in the Benchmarking Report.

GasNet does not believe it is appropriate to combine GasNet and VENCORP costs for benchmarking purposes. Any results from such an exercise would not indicate which organization was being assessed. Further, there is some

duplication of functions arising from the separation of operatorship and ownership, which is outside the control of GasNet, and for which GasNet cannot be held accountable. The functions performed by VENCORP are broader in scope than those performed by a traditional transmission pipeline operating under a contract carriage regime. For example, VENCORP manages a gas market, which is often performed by separate and independent organizations in other pipeline systems. In addition, VENCORP performs a range of other functions, such as gas balancing and AMDQ trading, which in a contract carriage regime are usually performed by the shippers themselves or managed by external secondary markets.

### ***Benchmarking***

GasNet has already provided an international benchmarking study. The report was prepared by Cap Gemini, a Canada-based international benchmarking specialist. Based on their extensive experience, Cap Gemini has developed a wide range of cost drivers which they believe are useful and meaningful.

Some of the workload measures suggested by BHP Billiton, such as number of transactions (related to administration costs), are more appropriate to the micro-benchmarking of narrowly defined commercial processes. GasNet considers that the benchmarks chosen by Cap Gemini and GasNet are appropriate given the scope of the KPIs required by the Commission.

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## **10 Benefit sharing**

### **10.1 Summary of GasNet's proposal**

GasNet proposes that the following model be used to assess the benefit from efficiencies in the current Access Arrangement Period to be shared between GasNet and Users in subsequent periods:

- (a) assess the benefit that Users gain from the enduring efficiency improvements made during the First Access Arrangement Period;
- (b) determine a reasonable share of these benefits that should be kept by GasNet and the quantum of that benefit; and
- (c) build this benefit into the tariffs to apply over the Second Access Arrangement Period.

The benefit that Users gain from operating efficiencies made during the First Access Arrangement Period is calculated as the difference between the forecast of operating costs for the Second Access Arrangement Period (in real dollars) and the last year of the original forecast of operating costs (dollars 2002).

### **10.2 Issues raised in submissions**

BHP Billiton believes users should accrue the greater part of the benefits from efficiency gains, since users take the risk between cause and effect. BHP Billiton supports the ESC model for calculating the benefit sharing,

which they characterise as the glide path model. They believe that GasNet should only receive a share of efficiency gains where GasNet takes a risk.

BHP Billiton criticises the method used by GasNet to calculate the efficiency savings made during the current regulatory period. It also queries the method used to calculate the share that GasNet retains.

### 10.3 GasNet's response

GasNet has already addressed the issue of benefit sharing in its Submission. In response to some of the specific issues raised by BHP Billiton, GasNet makes the following comments.

BHP Billiton believes that the savings from efficiency gains should be calculated by comparing the original forecast of costs to the actual costs incurred, rather than to the forecast of costs for the next regulatory period, as proposed by GasNet.

At first glance, the approach suggested by BHP Billiton has some appeal. If GasNet has spent \$1m less than was originally forecast, then it can be deemed to have made a saving of \$1m, which can be shared with users in the next period. However the key to benefit sharing is the extent to which users will *actually* benefit from an efficiency saving made during this period. This will only occur if the actual reduction in costs is passed on to users as a lower forecast of costs to be built into the new tariff. Therefore, the only relevant variable, from the point of view of users, is the forecast of costs, not the actual costs incurred by the company during the regulatory period.

GasNet's efficiency savings in the current period are reflected indirectly in the forecast costs. Therefore, users will benefit from the actual savings made to date. However, the level of future costs must take account of changed circumstances, such as increased insurance costs (and other exceptional costs identified by GasNet) and general increased maintenance due to system aging (such as the need to conduct a more intensive pigging program).

BHP Billiton makes the implicit assumption that the actual costs achieved by GasNet within this regulatory period should be used to set the forecast of costs for the next period, thereby passing any savings straight on to users. However, GasNet rejects this approach as both unfair and inconsistent with the Code. The approved costs must be those incurred by a prudent and efficient operator. To the extent that maintenance costs must increase as the system ages, or where additional costs such as increased insurance premiums must be incurred<sup>5</sup>, then the forecast of costs may increase above the actual costs achieved during this period. In other words, it is not correct to assume that actual historical costs contain *sufficient* information to enable a forecast to be derived.

In addition, some cost savings made during the current regulatory period are not sustainable. GasNet did manage to temporarily reduce some costs in response to large revenue losses resulting from warm weather and lost gas

<sup>5</sup> GasNet is obliged to insure under the terms of the Service Envelope Agreement.

sales. However, as discussed in GasNet's Submission, these savings are not sustainable and cannot be used to set the level of forecast costs.

With respect to the method used to calculate the share of savings retained by GasNet, BHP Billiton has stated that GasNet's proposal is inappropriate. BHP Billiton query the discount factor used to calculate the benefit in perpetuity. GasNet's approach is similar (but not identical) to that proposed by the ESC. The ESC proposes to allow a distribution company to retain the savings made in each year for a period of 5 years, after which the saving is passed to users in perpetuity. The NPV of the share retained by the company over 5 years is 30% of the total perpetuity benefit. This is the value quoted by the ESC as an appropriate share to be retained by the customer. GasNet proposes to retain 20% of the perpetuity value of the savings, but calculated from the beginning of the next regulatory period at the approved pre-tax WACC.

BHP Billiton has expressed support for the ESC method for calculating the sharing of benefits, which they characterise as a glide path. However, the ESC model is not the "glide path" which was discussed at the beginning of the current regulatory period. The glide path was a proposal to share benefits by a linear tapering off of the benefit allowance over the next regulatory period. The ESC approach is a very specific model with special incentive properties. The main feature of the ESC method is that the incentive on GasNet to make efficiency savings is equal in each year of the regulatory period. This avoids a possible bias inherent in a crude glide path model whereby efficiency incentives are diminished towards the end of the regulatory period. However, these features of the ESC model were not known to GasNet over the first half of the regulatory period, and therefore it was impossible for GasNet to have reacted to the special incentive properties of this model.

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## **11 WACC**

### **11.1 Summary of GasNet's proposals**

GasNet's proposals in relation to the Rate of Return apply the well established WACC and CAPM methodologies employed by the Commission and other regulators to derive a real pre-tax WACC of 8.22%.

In relation to the WACC parameters, GasNet proposes amounts that are generally within the range adopted by the Commission in recent regulatory decisions. However, in relation to a number of parameters (such as the equity beta) GasNet proposes marginally higher returns.

### **11.2 Issues raised in submissions**

#### *General comments*

BHP Billiton assert that the regulated return should be the minimum needed to support investment. It is suggested that some commentators think that the existing WACC is too high given the price paid for utilities.

BHP Billiton also assert that the risk-free rate should be the 5 year bond rate, and averaged over a long period to smooth out fluctuations.

Finally, BHP Billiton suggest that the returns should be benchmarked against businesses operating in a competitive environment, taking into account the fact that GasNet does not face the same risk as businesses in a truly competitive environment.

#### *Pareto Associates report*

BHP Billiton commissioned a report from Pareto Associates to examine GasNet's proposals in relation to WACC. GasNet's understanding of the main points made in the paper is as follows:

- (a) there is significant variation on inputs to the CAPM;
- (b) while debt costs are fairly consistent, there is a significant variation in equity beta decisions;
- (c) British regulators use a lower value for the Market Risk Premium (MRP) than Australian regulators; and
- (d) British regulators, particularly OfWat, have undertaken a more thorough and balanced review of the CAPM parameters.

### **11.3 GasNet's response**

#### *General comments*

BHP Billiton suggests that GasNet is seeking a return which is disproportionately high when compared to returns obtained by businesses in competitive markets. However, this view fails to take into account a number of issues.

Firstly, there is a potential misconception in comparing returns between regulated and competitive businesses, which may lead some observers to incorrectly believe that regulated businesses are over-compensated relative to competitive firms. Competitive businesses face the risk of loss in market share, but this is a diversifiable risk and not relevant to the determination of the cost of capital (ie. this risk does not imply that the competitive business should expect to have a higher return). The only business risks that are relevant in making such comparisons are non-diversifiable risks. For example, BHP Steel faces the risk of loss of market share to other steel suppliers, but this does not justify a high cost of capital for this firm. Only non-diversifiable risks, such as a reduction in the overall demand for steel (arising from economy-wide effects), should be compensated through the cost of capital.<sup>6</sup>

Secondly, the relevant comparison must allow for differences in gearing. GasNet has a higher gearing than competitive firms, which implies a higher degree of financial risk. Under standard financial theory, this implies a higher equity beta. When comparing the return on capital between firms, the relevant comparison is the asset beta, which removes the bias from different

<sup>6</sup> Furthermore, if a firm is a significant exporter, it is possible that the returns could be countercyclical to the Australian market, indicating that the equity beta would be very low, and implying a very low cost of capital compared to a regulated utility.

gearing levels. It is our understanding that GasNet and other regulated firms have lower asset betas than competitive firms.

Thirdly, GasNet is not a 'traditional' low risk utility, as this term is conventionally understood. Historically most Australian utilities have been government owned, and therefore protected from financial failure. Similarly, the traditional US utility is subject to low risk, rate-of-return regulation, and supported by take-or-pay contracts. However, the Victorian Government reform process has significantly increased the level of risk on infrastructure businesses in Victoria. There is simply no comparison between traditional views of utility risks, and the risks now being experienced in the reformed Victorian market.

Fourthly, BHP Billiton is not correct when it asserts that GasNet has not been benchmarked against other companies. GasNet's returns has been compared to the returns available in the market through the estimation of the Market Risk Premium (MRP). This is defined as the difference between the market rate of return and the riskless rate. To the extent that the MRP is high, then the market as a whole is earning high returns, and vice versa. GasNet's return has been calculated with respect to this benchmark. It is well understood that the MRP can show extreme fluctuations from one year to the next, and that individual companies can also show large year-to-year variations against the market as a whole. However, the best predictor of the future state of the market is the past behaviour, and this evidence points to a premium of at least 6%, the value commonly used by all Australian regulators.

With respect to the BHP Billiton's arguments about the risk free rate, GasNet has made what it believes is a sound case in its Submission. At a recent Forum on the WACC, both Henry Ergas and Professor Bob Officer agreed that the appropriate risk free rate is the 10-year government bond rate. Furthermore they both agreed that the appropriate rate should be estimated from values observed over a short period of time, and not, as BHP Billiton suggests, from a longer term average.

#### ***Pareto Associates report***

GasNet has not attempted to provide a comprehensive analysis of this report. GasNet' comments are limited to a number of specific issues raised in this paper. In general, GasNet's view is that the issues canvassed in the report are not new and that there is little to offer in the report beyond an appeal for more work to be done on the issues.

GasNet has made similar observations about the uncertainties in the inputs to the CAPM. However Pareto Associates and BHP Billiton have argued that, where there is uncertainty, the regulator should be "bold" enough to approve the minimum feasible rate of return. On the other hand, GasNet has pointed out that erring on the low side might bring immediate customer benefits (in the form of lower tariffs), but that these benefits will be outweighed by the disbenefits from lower pipeline investment in the longer term. Pareto Associates have not provided any argument to support their opinion. However GasNet's view has been supported by the Productivity Commission in its Draft Report on the National Access Regime.

GasNet also differs from Pareto Associates in their appraisal of the consistency of regulatory decisions on the input parameters to the WACC. Pareto Associates believes there is a wide and unjustified variation in parameters, particularly the equity betas, approved by regulators in Australia. However, GasNet has reviewed the WACC decisions of the Commission on gas and electricity transmission, and our conclusion is that there is a reasonable level of consistency. The main differences between decisions appears to be, firstly, the level of the risk free rate (which is expected to vary from time to time), and secondly, the value of the asset beta. However, the approved asset betas are in a fairly narrow range, and there are logical reasons for the differences.

In general, electricity transmission companies have received the lowest asset beta, reflecting the stability of income under a revenue cap. Gas transmission companies with secure take-or-pay contracts have slightly higher asset beta, and GasNet's asset beta is marginally higher again, attributable to the greater revenue risk faced by GasNet. The highest asset beta has been provided to the Central West Pipeline, which is a new pipeline operating without a secure customer base.

The main issue raised by Pareto Associates is the significantly lower MRP approved by British regulators compared to the Australian norm. Pareto implies that the British view is appropriate to Australia. GasNet has two points to make.

Firstly, NECG reviewed the MRP for GasNet, and included a review of the USA MRP and its applicability to Australia. They concluded that adjustments must be made between countries, but that when the adjustments were made to the USA data, the comparable MRP for Australia was above 6%.

Secondly, whilst we have not attempted a critique of the OfWat decisions, our view is that the British regulators might not provide a useful guide to appropriate regulatory practice. In particular, the British decisions have been made:

- (a) under a totally different set of rules;
- (b) in relation to different entities; and
- (c) in very different market conditions.

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## **12 Pro-infrastructure approach**

### **12.1 Summary of GasNet's proposal**

GasNet considers that, in applying the principles in section 8 of the Code, the Commission must apply the principles in a way that recognises the paramount importance of the criteria in section 2.24 of the Code. In relation to Reference Tariffs, the most significant of these criteria that the Commission must take into account:

- (a) GasNet's legitimate business interests and investment in the GNS;

- (b) the public interest; and
- (c) the interest of Users and Prospective Users.

A practical implication of this is that it is in the interests of Users, GasNet and the public for the Commission to take into account the long run benefits of encouraging investment in infrastructure even when this may be perceived to conflict with the short run benefits of, for example, lower tariffs.

## **12.2 Issues raised in submissions**

Amcor rejects the pro-infrastructure approach put forward by GasNet and believes that GasNet has quoted selectively from pipeline industry sources to support its position.

## **12.3 GasNet's response**

The need for a pro-infrastructure approach arises from the negative consequences for investment if the Commission errs on the low side in its assessment of an appropriate return on investment. BHP Billiton's own consultant, Pareto Associates, has pointed out that financial theory can only provide a range of estimates for the return, and no guidance as to whether the appropriate return is at the higher or lower end of the range. In this situation, the Commission must draw their conclusions in a wider context that includes the desirable incentives to investment.

Contrary to the Amcor Paperlinx assertion, the most telling source in support of GasNet's position is not another pipeline company, but the Productivity Commission. Their Draft Report on the National Access Regime is quoted extensively in our Submission.

Although the ACCC's decision on GasNet relates to an existing asset rather than a new investment, the impact of this decision will influence the investment community. The returns approved for existing assets is the surest guide to a potential investor as to how the Commission will treat a new asset investment once that asset has been constructed and put in operation.

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# **13 Redundancy Policy**

## **13.1 Summary of GasNet's proposal**

GasNet is proposing to adopt a revised Redundancy Policy which provides that the Capital Base may only be adjusted to take account of wholly redundant assets, being assets which no longer contribute in any way to the provision of the Tariffed Transmission Service.

For the commencement of the Second Access Arrangement Period, GasNet has removed the North Paraatte odourisation plant from the Capital Base which is no longer required now that the North Paraatte gas field has been shut-in.



### **13.2 Issues raised in submission**

BHP Billiton suggested that GasNet should optimise the asset value of partially used assets.

### **13.3 GasNet's response**

GasNet does not agree that partially used assets should be optimised. This is contrary to the spirit of the Code, which gives confidence to investors that prudently incurred investments will have the opportunity to earn a reasonable return.

When significant under-utilisation of an asset is expected, one possible strategy is to defer depreciation claims on that asset. This is the policy preferred by the Commission and set out in the Draft Statement of Principles for the Regulation of Transmission Revenues, for situations where the partial utilisation is forecast to occur in the medium to long term. This is the procedure commonly adopted for new pipelines when the initial flows are low compared to the anticipated long-term flows. GasNet has employed this procedure on the SWP.

This procedure does not insulate the pipeline company from risk. If a pipeline is under-utilised, the tariff will have to increase until it is capped at a level which the market can bear. In this situation, the depreciation claim on the asset must be reduced and deferred to the future. However, the pipeline company risks never recovering the deferred depreciation unless volumes increase on the pipeline in the future. This outcome has the same effect as a write-down of the asset, but it is managed in a manner which is more flexible and market-based. The alternative method advocated by BHP Billiton is inflexible.

# Response (No 3) to Submissions on ACCC Issues Paper - GasNet Australia

## Schedule - Gippsland Basin depletion dates

### Reserves 1/1/2000

Proved and Probable	8,400 PJ
Including hypothetical new discoveries	12,000 PJ

### Cumulative Production from 2000 (PJ)

	2005	2010	2015	2020	2025	2030
Annual Demand (Vict)	233	265	320	376	419	551
Use in production (18%)	42	48	58	68	75	84
Annual Exports (NSW and Tas)	75	112	120	120	120	120
Less						
Annual Bass/Otway/Culcairn	-41	-55	-55	-55	-55	-55
<b>Cumulative Production since 2000</b>	<b>1535</b>	<b>3287</b>	<b>5353</b>	<b>7800</b>	<b>10491</b>	<b>13455</b>