Public Submission

By BHP Billiton

In Response to the Proposed Revisions to the Victorian Transmission System Access Arrangement

29 June 2012

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PART A - INTRODUCTION

1 Background

On 1 March 2012, APA GasNet Australia (Operations) Pty Limited (**APA GasNet**) submitted proposed revisions to the access arrangement (**Proposed Access Arrangement**) for the Victorian Transmission System (**VTS**) to the Australian Energy AER (**AER**) for approval under the *National Gas (Victoria) Act 2008* which implements the *National Gas Law* (**NGL**) and *National Gas Rules* (**NGR**) in Victoria. APA GasNet also provided a submission and supporting information in respect of the Proposed Access Arrangement (**Access Arrangement Submission**).

On 17 April 2012, the AER published an access arrangement review indicative timetable, which allows for submissions from interested parties on the Proposed Access Arrangement, to be submitted by 18 June 2012.

On 11 June 2012, BHP Billiton (**BHPB**) notified the AER that it wished to make submissions, and requested an extension of time. The AER subsequently indicated that it would receive BHP Billiton's submissions, even if lodged out of time.

2 Introduction

This submission is made by BHPB in relation to the Proposed Access Arrangement and related material including:

(a) the Revised Access Arrangement Information lodged with the Proposed Access Arrangement (**RAAI**); and

(b) the Access Arrangement Submission.

3 Structure

This Submission is structured to focus on the following four areas:

(a) Part A - Introduction

(b) Part B - Rate of Return

(c) Part C – Total Revenue

(d) Part D - Terms and Conditions.

Unless otherwise defined, words and expressions used in this Submission have the meaning given in the NGL and NGR.

4 About BHPB

BHPB is the world’s largest diversified natural resources company with significant positions in major commodity businesses, including aluminium, energy coal and metallurgical coal, copper, manganese, iron ore, uranium, nickel, silver and titanium minerals, and substantial interests in oil, gas, liquefied natural gas and diamonds.

BHPB is a major user of gas and thus has a significant demand for gas transportation services. BHPB has an interest in APA GasNet's proposal because, although BHPB is not currently a user of the VTS, it is a substantial user of gas haulage and transportation services provided by means of a number of covered gas pipelines (as well as other gas pipelines) throughout Australia and the AER's decision on the Proposed Access Arrangement for the VTS has the real potential to influence arrangements for those pipelines. The regulatory issues in this submission are not specific to the VTS, and have the potential to affect covered gas pipelines generally. BHPB is concerned that any increase in the transportation cost component of natural gas above efficient levels may reduce the competitiveness of natural gas as an energy product in Australia.

5 Executive Summary

5.1 Rate of Return

BHPB submits that the 9.06% (nominal post-tax) weighted average cost of capital (**WACC**) proposed by APA GasNet in the Proposed Access Arrangement is not reasonable, and has not been justified by APA GasNet, on the following basis:

(a) APA GasNet's proposed cost of equity is inflated and unjustifiable because:

(i) APA GasNet's approach to determining the Market Risk Premium (**MRP**) by relying on forward looking estimates under dividend growth models (**DGMs**), and disregarding the AER's well established approach (which places greatest weight on historical excess returns), is inconsistent with Rule 87(2) of the NGR and is therefore not permitted;

(ii) the use of DGMs to the exclusion of historical excess returns (and rather than as a tool to cross check on the reasonableness of other methods) to determine the cost of equity, is unreliable and inappropriate, and no significant weight should be placed on them; and

(iii) the MRP proposed by APA GasNet is substantially overstated, and significantly out of step with regulatory decisions, and BHPB submits should be between 5 and 6%.

(b) BHPB submits that the determination of the Debt Risk Premium (**DRP**) using the BBB Bloomberg fair value curve is appropriate. However, BHPB considers there to be merit in exploring other methods of evaluating the DRP.

5.2 Total Revenue

BHPB reserves its position in respect of the calculation of Regulatory Depreciation, and intends to make further submissions once additional information is available about the proposed calculation of Regulatory Depreciation.

BHPB submits that the proposed rate of return of 10.04% in respect of the speculative capital expenditure account is overstated, and not justified for the following reasons.

(a) APA GasNet has not provided sufficient information to support its argument that the rate should be higher to compensate it for additional risk and provide it an incentive to undertake speculative capital expenditure.

(b) The AER should exercise caution before approving a rate that is designed to give a service provider an incentive to undertake speculative capital expenditure, particularly where the nature of that speculative capital expenditure is unknown.

(c) APA GasNet's argument that the higher rate should be determined by applying an equity beta of 1.20, instead of 0.80, appears to be arbitrary, and not supported by any evidence.

5.3 Terms and Conditions

APA GasNet has proposed substantial changes to the terms and conditions in the current Access Arrangement (**Terms & Conditions**). BHPB submits that the information APA GasNet has provided in relation to its proposed changes to the Terms and Conditions is wholly inadequate. BHPB's view is that any changes that do not have sufficient supporting information should not be approved by the AER, at least until such time as APA GasNet provides this information and stakeholders have had an opportunity to consider it and make submissions.

PART B - Rate of Return

6 Introduction

6.1 Issue

APA GasNet has proposed a rate of return of 9.06% (nominal post-tax WACC).

6.2 Summary - BHPB Position

BHPB submits that the rate of return proposed by DBP in the Proposed Access Arrangement is not reasonable on the following basis:

(a) APA GasNet's approach to determining the MRP by relying on forward looking estimates under DGMs, and disregarding the AER's well established approach (which places greatest weight on historical excess returns), is inconsistent with Rule 87(2) of the NGR and is therefore not permitted;

(b) the use of DGMs to the exclusion of historical excess returns (and rather than as a tool to cross check on the reasonableness of other methods) to determine the cost of equity, is unreliable and inappropriate, and no significant weight should be placed on them; and

(c) the MRP proposed by APA GasNet is substantially overstated, and significantly out of step with regulatory decisions, and instead should be between 5 and 6%.

6.3 NGL and NGR requirements

Overview of the requirements

Section 23 of the NGL sets out the National Gas Objective, as follows:

> *"The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."*

Rule 100 of the NGR requires all provisions of an access arrangement to be consistent with the National Gas Objective. It is clear that the national gas objective places a strong emphasis on efficiency but also that this be for the long term interests of consumers.

Section 24 of the NGL sets out six revenue and pricing principles, which the AER is required to take into account when exercising discretion in approving those parts of an access arrangement relating to a reference tariff (s28(2) NGL). The principles are as follows:

> *"(2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in -*
>
> *(a) providing reference services; and*
>
> *(b) complying with a regulatory obligation or requirement or making a regulatory payment.*
>
> *(3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes:*
>
> *(a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and*

(b) the efficient provision of pipeline services; and

(c) the efficient use of the pipeline.

(4) Regard should be had to the capital base with respect to a pipeline adopted—

(a) in any previous full access arrangement decision or decision of a relevant AER under section 2 of the Gas Code;

(b) in the Rules.

(5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

(6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

(7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services."

The rate of return must be determined in accordance with Rule 87 of the NGR. This states:

"(1) The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.

(2) In determining a rate of return on capital:

(a) it will be assumed that the service provider:

(i) meets benchmark levels of efficiency; and

(ii) uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and

(b) a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used."

Rule 87 is expressed in mandatory terms, and neither the AER, nor APA GasNet, is entitled to disregard it nor any parts of it.

APA GasNet has identified Rule 74(2) of the NGR as also being relevant. Rule 74 states:

"(1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.

(2) A forecast or estimate:

(a) must be arrived at on a reasonable basis; and

(b) must represent the best forecast or estimate possible in the circumstances."

Summary

In summary, the NGL and NGR require that:

(a) all provisions of the Proposed Access Arrangement must be consistent with the National Gas Objective, including each reference tariff (Rule 100);

(b) the AER take into account the revenue and pricing principles when exercising discretion in approving a part of the Proposed Access Arrangement that relates to reference tariffs (which would therefore include the calculation of the rate of return) (section 24 of the NGL); and

(c) the rate of return on capital must:

(i) be commensurate with the prevailing conditions in the market for funds and the risks involved in providing reference services; and

(ii) be determined on the assumption that APA GasNet meets benchmark levels of efficiency and a financing structure that meets benchmark standards as to gearing and other financial parameters and reflects, in other respects, best practice; and

(iii) be determined using a well accepted approach (such as the Weighted Average Cost of Capital) and using a well accepted financial model (such as the Capital Asset Pricing Model),

(Rule 87).

Within this framework, any forecast or estimate must be supported by a statement of the basis of the forecast or estimate, be arrived at on a reasonable basis, and must represent the best forecast or estimate possible in the circumstances.

7 Cost of equity

7.1 Issue

APA GasNet has proposed a cost of equity of 10.79% (nominal post-tax). This is based on a Risk Free Rate of 3.99% (which will be updated once the commencement date of the Access Arrangement is known), an MRP of 8.50% and an equity beta of 0.80.

BHPB submits that the cost of equity is overstated because APA GasNet has not correctly calculated the MRP in accordance with the NGR and NGL (particularly Rule 87(2) of the NGR). Further, even if that was the case, BHPB submits that the proposed MRP of 8.50% is significantly overstated and, consistent with previous decisions by the AER in respect of other gas pipelines, should be between 5 and 6%.

7.2 Summary - BHPB Position

BHPB considers that the proposed MRP of 8.50% is overstated and not justified, for the following reasons.

(a) The AER's approach to determining the MRP (most recently described in its draft decision on proposed access arrangement for the Roma to Brisbane Pipeline (**RBP**)) is consistent with the NGL and NGR and is the appropriate approach to take in respect of the VTS.[1]

(b) APA GasNet's criticisms of the AER's approach are not sound, and do not provide any basis in law or fact to depart from the AER's well established approach.

(c) APA GasNet's methodology for determining the MRP should be rejected, as it is inconsistent with the NGR (particularly the requirement to use a well established financial model under Rule 87(2)) and not supported in fact.

[1] AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 28.

7.3 Background and context

The AER's approach to determining MRP

As APA GasNet has acknowledged[2], in recent decisions, the AER has determined a 10 year forward looking MRP by considering a number of estimation methods. These estimation methods, and the AER's most recent findings from its draft decision on the proposed access arrangement for the RBP, are as follows:

(a) historical excess returns—the long-term historical estimates of average excess returns produce a range of 5.7-6.1 per cent (based on arithmetic averages) and 3.5-4.7 per cent (based on geometric averages);[3]

(b) survey based estimates—survey measures both before and after the height of the global financial crisis (**GFC**) support 6 per cent as the MRP;

(c) current market conditions and economic outlook—less weight should be placed on this evidence, but it is nonetheless consistent with an MRP of 6 per cent;

(d) dividend growth models—the output from these models is highly sensitive to the exact construction of the models, assessment of inputs, and point of time of estimation, and, in this context, DGM estimates are useful only as a cross check on the reasonableness of other methods; and

(e) implied volatility analysis—there are no direct implications of implied volatility for the 10 year forward looking MRP. To the limited extent that this evidence is relevant to expectations of market risk, it supports an MRP at the long term average of 6 per cent.

The AER has stated that it does not rely on any one type of evidence. Rather, it reviews evidence from across all areas and exercises appropriate regulatory judgment in making its decision on the forward looking 10 year MRP.[4]

APA GasNet's objections to the AER's approach

APA GasNet has argued that the AER's well established approach should not be followed in relation to the VTS. Its challenge is expressed on three grounds:

(a) the AER's "almost exclusive" reliance on estimates of historical excess returns does not adequately consider the prevailing conditions in the market for funds;

(b) the adjustment made by the AER to raise the MRP to 6.5% in its 2009 SORI[5] (which BHPB notes was in relation to electricity transmission and distribution network service providers) was an "arbitrary adjustment" and "should not be considered a robust estimate of the prevailing MRP during the early stages of the GFC"; and

(c) the adjustment made by the AER to reduce the MRP back to 6.0% "effectively declaring the GFC to be over".[6]

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2 Access Arrangement Submission, page 140 [8.5.1].

3 AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 28.

4 For example, see AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 128 [7.3.3]

5 AER, *Electricity transmission and distribution network service providers, Review of the weighted average cost of capital (WACC) parameters, Final decision* (May 2009).

6 APA GasNet, page 141.

APA GasNet's approach

APA GasNet rejected the use of the AER's well established methodology and appears to have determined the MRP in the following way.

(a) APA GasNet provides four different "current estimates of the prevailing forward looking estimates of the MRP", as follows:

  (i) the following estimates using DGMs:

    (A) 7.69 %, based on a combination of Bloomberg consensus forecasts, the long-run growth in dividends per share, and a 10 year bond yield of 3.99% per annum (prepared by NERA Economic Consulting (**NERA**));

    (B) 8.52 %, based on the AMP method using the end of December 2011 dividend yields from the RBA, long run dividend growth of 6.6% nominal, a risk free rate of 3.77% and an assumption that each dollar of dividend comes with 11.125 cents value of franking credits (prepared by Consulting Economics Group (**CEG**)); and

    (C) 9.56 %, based on a price earning model, together with a risk free rate of 3.73% and an assumption that each dollar of dividend comes with 11.125 cents value of franking credits (prepared by Capital Research Pty Ltd (**Capital Research**)); and

  (ii) an MRP estimate of 8.44%, based on NERA's "regime-switching model"; and

(b) APA GasNet has then selected an MRP of 8.5 % on the basis that it is "consistent with the above evidence of the prevailing forward looking MRP", without any further explanation or evidence.

7.4 APA GasNet has not used a well established financial model to estimate the MRP

Overview

As explained in section 6.3 of this submission, the NGL and NGR require that:

(a) all provisions of the Proposed Access Arrangement (including the reference tariff) be consistent with the National Gas Objective (Rule 100);

(b) the AER take into account the revenue and principles when exercising discretion in respect of provisions of the Proposed Access Arrangement that relate to the reference tariff; and

(c) the rate of return comply with both Rule 87(1) and Rule 87(2) of the NGR.

Importantly, under Rule 87(2), a well accepted financial model, such as the CAPM, is to be used in determining the rate of return on capital.

APA GasNet has purported to comply with Rule 87(2) by using CAPM. However, as outlined above, it has rejected the well established methodology for determining the MRP component of CAPM, and adopted an idiosyncratic methodology that primarily relies on forward looking estimates.

BHPB submits that, by failing to use the well established methodology for determining the MRP component of CAPM, APA GasNet has failed to use a well accepted financial model as required by Rule 87(2). APA GasNet cannot say that it has <u>used</u> a well accepted financial model if its application of that model involves (as it does in relation to the MRP) the use of idiosyncratic

methods—that are not well accepted—for determining key variables in that model. That is the case even if it expresses that model in a way that is well accepted.

The well established approach to determining MRP

BHPB submits that the correct approach to determining the MRP component of CAPM is the approach outlined by the AER in its recent draft decision on the RBP (as described in section 7.3 of this submission).

There are three important aspects to the AER's approach:

(a) the approach places primary emphasis on the estimate of MRP based on historical excess returns, while taking into account the output from other estimating models;

(b) the AER places limited weight on the estimate of MRP generated from forward looking, dividend growth models because these models are inherently unreliable—they are highly sensitive to the exact construction of the model, assessment of inputs, and point of time of estimation; and

(c) the AER's analysis has consistently found that the MRP across the estimating models it has employed lies in the range of 5 and 6%.

BHPB submits that the AER's approach represents the correct use of CAPM in the context of access regulation of covered pipelines. Further, BHPB submits that this approach:

(a) complies with Rule 87 in its entirety;

(b) produces outcomes that are consistent with the National Gas Objective and the revenue and pricing principles; and

(c) produces the best estimate or forecast available in the circumstances, and one which is arrived at on a reasonable basis.

APA GasNet's grounds for rejecting the AER's approach are not sound in law or fact

Importantly, Rule 87(2) is expressed in mandatory terms.[7] It requires the service provider to use a well established financial model, and does not allow a service provider to use an alternative financial model, simply because the service provider considers there to be flaws in that model. Nor does it permit (as noted above) APA GasNet to use idiosyncratic methods—that are not well accepted—to calculate key variables in a well accepted model and to then claim that it has used a well accepted model.

As a consequence, as a matter of law, APA GasNet's criticisms of the AER's approach do not provide it a basis for departing from the well established financial model.

In addition, as a matter of fact, BHPB submits that APA GasNet's criticism of the AER's approach is not supported by evidence. This is addressed in further detail in section 7.5 of this submission.

APA GasNet's approach to determining MRP is not sound in law or fact

APA GasNet's central argument is that it is justified in using its approach to determine the MRP on the basis that its approach "better meets the requirements of Rule 87(1) that the return on capital is to be commensurate with the prevailing conditions in the market for funds".[8] APA GasNet asserts that its "indicative return on equity is consistent with the three approaches endorsed by CEG as

[7] This view is supported by *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 at [67].

[8] Access Arrangement Submission, page 144.

being capable of arriving at an estimate of the cost of equity that would be consistent with the Rules".[9]

This central argument is fundamentally wrong because it fails to give effect to Rule 87(2). It is not open for APA GasNet to abandon the well established approach whether, in respect of the model chosen or the way in which the model is applied, on the basis that it has a different approach that it prefers; APA GasNet cannot disregard the requirements of Rule 87(2) on the basis that its proposal "better meets" the criteria in Rule 87(1).[10]

In this regard, BHPB submits that APA GasNet's statements that Rule 87(2)(b) provides "guidance" cannot be accepted. As pointed out in section 6.3 of this submission, Rule 87 is mandatory and APA GasNet is not entitled to disregard it or any parts of it. It does not provide mere "guidance",[11] but imposes a clear legal obligation as to how the rate of return is to be calculated and APA GasNet must comply with it.

APA GasNet has not provided any evidence to show that the DGM and regime-switching model that it has employed, nor the way in which it has used them in proposing an MRP, form part of (or otherwise constitute) a well established financial model. Nor is BHPB aware of any evidence to that effect.

Further, BHPB submits that, for the reasons explained in section 7.5 the use of APA GasNet's methodology:

(a) would result in a reference tariff that is not consistent with the National Gas Objective;

(b) is not consistent with the revenue and pricing principles; and

(c) does not lead to a rate of return on capital that is commensurate with the prevailing conditions in the market for funds and the risks involved in providing reference services.

BHPB submits that APA GasNet's calculation of MRP is not consistent with the legislation, and therefore should be rejected, and replaced with an MRP calculated in accordance with the AER's well established approach. This suggests that the MRP should be between 5 and 6%.

BHPB also observes that the novel and idiosyncratic approach proposed by APA GasNet has the result of increasing the MRP by 2.50% (about 40% above) the upper boundary of the values that result from the application of the AER's well accepted methodology. It would lead to a higher rate of return for APA GasNet. The proposal should therefore be subjected to intense scrutiny to ensure it is consistent with the revenue and pricing principles and National Gas Objective.

7.5 The use of forward looking estimates is not reliable or supported

Overview

BHPB also submits that, regardless of the submissions in section 7.4, the use of forward looking estimates to the exclusion of historical excess returns should also be further disregarded for the following reasons:

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9 Access Arrangement Submission, page 152.

10 This submission is supported by the AER's statement that it does not accept that Rule 87(1) and not Rule 87(2) sets the primary requirements of Rule 87. According to the AER, in order to comply with Rule 87, both Rule 87(1) and Rule 87(2) must be met. There is no hierarchy of importance: see AER, June 2010, "Final decision - Public: Access arrangement proposal for the NSW gas networks", page 114.

11 Access Arrangement Submission, page 152.

(a) the output of the DGMs is heavily dependent on the inputs and assumptions used, and APA GasNet has provided insufficient evidence to support the input assumptions on which its estimate is based;

(b) APA GasNet has failed to establish any persuasive grounds for placing primary weight on forward looking estimates, and no weight on historical excess returns;

(c) reliance on analysts' estimated forecasts about dividend yields has been shown to likely result in an upwardly biased estimate; and

(d) there is no basis for arguing that the estimate is the "best forecast or estimate possible in the circumstances" within the meaning of Rule 74.

The outputs of the models are heavily dependent on inputs and assumptions, and are unreliable

APA GasNet's approach heavily relies on forward looking estimates using DGMs. A risk to employing any forward looking model is that the model is necessarily highly dependent on, and sensitive to, its inputs and assumptions. This risk is illustrated by the highly variable outcomes from the four different models referred to by APA GasNet (ranging from an MRP of 7.69% to 9.56%).

This type of risk has been acknowledged by the AER. In its recent draft decision on the RBP, the AER decided not to place substantial weight on the output of DGMs, and said:

> *"the output from these models are highly sensitive to the exact construction of the model, assessment of inputs, and point of time of estimation. In this context, DGM estimates are useful only as a cross check on the reasonableness of other methods."*[12]

These concerns are supported by recent academic research, which demonstrates that expected return estimates based on earnings and dividend methods are highly unreliable. The results are summarised by Easton and Sommets:[13]

> *"The conclusion from the very recent studies that examine the validity of firm-specific estimates of the implied expected rates of return derived from reverse-engineering earnings-based valuation models is that these estimates are poor, indeed."*

BHPB submits that there is significant bias likely to be present in the MRP (and therefore the cost of equity) or, at the very least, considerable risk of such a bias. On this basis, APA GasNet's approach should not be accepted as it is likely to produce outcomes which are inconsistent with the NGL, NGR and the national gas objective.

No basis for ignoring historical excess returns

APA GasNet has failed to place any weight on historical excess returns, on the basis that reference to historical excess returns is not appropriate, based on the findings of a jointly commissioned report by CEG.[14]

Essentially, APA GasNet contends the *long term MRP* is different because the current (and presumably forecast) market conditions are structurally different to the market conditions that lead to an MRP based on historical excess returns of 6.0%.

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12 AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 28.

13 Easton, P. D.; Sommers, G. A.; "Effect of Analysts' Optimism on Estimates of the Expected Rate of Return Implied by Earnings Forecasts", *Journal of Accounting Research*, 2007 (45), 983

14 The report is contained as Attachment G-3 to the Submission.

The fundamental criticism advanced by CEG, and adopted by APA GasNet, is as follows:

> *"the AER's methodology is not valid in current market conditions. Specifically, the assumption, implicit in the AER methodology, that the cost of equity has moved one-for-one with CGS yields and is currently at historically low levels is invalid."*[15]

APA GasNet explains that this issue "only becomes a material issue during unstable market conditions such as we have recently experienced".[16] APA GasNet then sets out some data, which it claims demonstrates that there is a negative (or inverse) relationship between the MRP and the yields on Commonwealth Government Securities.

This argument has been recently rejected by the AER. In its draft decision on the RBP, the AER commented on the argument that there is an inverse relationship between the risk free rate and MRP, and stated that:

> *"… the empirical evidence in support of such a relationship is not strong. Further, the adoption of this approach only at times when the risk free rate is low, as has been suggested, would be poor regulatory practice as it would lead to a bias in regulatory outcomes."*[17]

In other words, one of the fundamental reasons advanced by APA GasNet for using forward looking models is not well supported by the empirical evidence.

7.6 MRP is not justified when compared to recent regulatory decisions

In addition to historical data and market expectations, there is also limited support for APA GasNet's proposed MRP position in recent regulatory decisions, as set out in the table below. If the AER accepted the MRP proposed by APA GasNet, then this would be a significant departure from recent practice.[18]

Year	Decision	MRP (%)
2012	AER – Brisbane to Roma Pipeline (Draft Decision[19])	6.0
2012	ACT – Envestra SA (Review Decision)	6.0
2011	AER – Envestra Qld (Final Decision)	6.0
2011	AER – APT Allgas Qld (Final Decision)	6.0
2011	AER – Amadeus Gas Pipeline NT (Final Decision)	6.0
2010	ERA - Goldfields Gas Pipeline (Final Decision)	5.0-7.0
2010	AER - NSW Gas Networks (Final Decision)	6.5

[15] CEG 2012, *Internal consistency of risk free rate and MRP in the CAPM – Prepared for Envestra, SP AusNet, Multinet and APA, March, p vi.*

[16] Access Arrangement Submission, p 142 – 143.

[17] AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 29.

[18] BHPB notes that in *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, the Australian Competition Tribunal noted that the ERA's cross-checking of MRP against decisions by other regulators is "what is to be expected of any regulator in such a situation": at [85].

[19] APT Petroleum Pipelines has submitted a revised proposal, in which it argues that the MRP should be 8.5%.

Year	Decision	MRP (%)
2010	AER - Wagga Wagga Natural Gas Distribution Network (Final Decision)	6.5
2010	AER - ACT, Queanbeyan and Palerang Gas Distribution Network (Final Decision)	6.5
2008	ACCC - Principal Transmission System (GasNet System) (Final Approval)	6.0
2008	ESC - Gas Access Arrangements (Envestra (Victoria), Multinet, SP AustNet, Envestra (Albury)) (Further Final Decision and Approval)	6.0
2007	ACCC - Dawson Valley Pipeline (Final Decision)	6.0
2006	ACCC - Roma to Brisbane Pipeline (Final Decision) [20]	6.0
2006	QCA - Allgas Energy System (Final Decision)	6.0
2006	QCA - Envestra Limited Gas Distribution Pipeline (Final Decision)	6.0
2006	ESC - South Australian Gas Distribution System (Final Decision)	6.0
2005	ERA - Dampier to Bunbury Natural Gas Pipeline (Draft Decision approved in Final Decision)	5.0-6.0
2005	ERA - Goldfields Gas Pipeline (Final Decision)	5.0-6.0
2005	IPART - AGL Gas Networks (Final Decision)	5.5-6.5
2005	IPART - Country Energy Gas Network (Final Decision)	6.0
2005	ERA - Alinta Gas Distribution Systems (Mid West and South West Gas Distribution Systems) (Final Decision)	5.0-6.0
2004	ICRC - ActewAGL Natural Gas System (Final Decision)	6.0
2003	ACCC - Moomba to Sydney Pipeline (Final Approval)	6.0
2003	Australian Competition Tribunal - GasNet System (Tribunal Decision)	6.0
2002	ACCC - Amadeus Basin to Darwin Pipeline (Final Decision)	6.0
2001	ACCC - Moomba to Adelaide Pipeline System (Final Decision)	6.0
2001	QCA - Envestra Limited Gas Distribution (Final Decision Errata)	6.0
2001	QCA - Allgas Energy System (Final Decision Errata)	6.0

[20] This Access Arrangement is under review.

Year	Decision	MRP (%)
2000	ACCC - Central West Pipeline (Final Decision)	6.0
2000	ICRC - ActewAGL Natural Gas System (Final Decision)	5.0-6.0
2000	Offgar - Alinta Gas Distribution Systems (Mid West and South West Gas Distribution Systems) (Final Decision)	6.0

7.7 Appropriate market risk premium

For the above reasons, BHPB submits that an appropriate MRP is between 5.0 and 6.0%, consistent with recent regulatory practice. BHPB further submits that this would be consistent with the National Gas Objective and the revenue and pricing principles.

8 Debt Risk Premium

8.1 Issue

BHPB notes that APA GasNet has proposed that the Debt Risk Premium (**DRP**) be estimated by extrapolating the BBB Bloomberg fair value yield to 10 years using a paired bond methodology, instead of using the AER's alternative methodology set out in its draft decision on the Powerlink transmission determination.[21]

8.2 BHPB Position

BHPB considers it appropriate to rely on the BBB Bloomberg fair value yield to estimate the DRP. BHPB notes that the AER has adopted this method in its draft decision on the RBP.[22]

However, BHPB considers there is merit in exploring alternative methodologies to determine the DRP, and would be pleased to make further submissions on this point.[23]

9 Summary position

Based on the analysis provided above, BHPB submits that the WACC parameters applicable to the VTS are:

WACC parameters	APA GasNet Proposed	BHPB Submission
Market Risk Premium	8.50%	5-6%

[21] AER 2011, *Draft decision, Powerlink transmission determination, 2012-13 – 2016-17* (November) p 215.

[22] AER, Access arrangement draft Decision on the Roma to Brisbane Pipeline 2012–13 to 2016–17 (April 2012), page 25

[23] BHPB has made previously made a submission to the ERA in response to a discussion paper released by the ERA on 1 December 2010. See: BHPB, *Public submission by BHP Billiton Nickel West in response to the ERA Discussion Paper: Measuring the Debt Risk Premium: A Bond-Yield Approach* (7 January 2011).

PART C – Components of calculating Total Revenue

10 Regulatory Depreciation

10.1 Issue

APA GasNet has indicated that it has calculated Regulatory Depreciation using a nominal approach, instead of a real approach. The impact of the change is not clear from the information in the Access Arrangement Submission.

10.2 BHPB Position

BHPB intends to make further submission on the calculation of Regulatory Depreciation once further information is available.

11 Speculative Capital Expenditure

11.1 Issue

APA GasNet has proposed that a different, higher, rate of return of 10.04% (nominal, post-tax WACC, compared to the value of 9.06% proposed for calculating the reference tariff) apply to any funds included in its speculative capital expenditure account. BHPB submits that APA GasNet has not adequately explained, or justified, the higher rate and that the AER should reject it.

11.2 Summary – BHPB Position

BHPB submits that the proposed rate of return of 10.04% in respect of the speculative capital expenditure account is overstated, and not justified on the following reasons.

(a) APA GasNet has not provided sufficient information to support its argument that the rate should be higher to compensate it for additional risk and provide it an incentive to undertake speculative capital expenditure.

(b) The AER should exercise caution before approving a rate that is designed to give a service provider an incentive to undertake speculative capital expenditure, particularly where the nature of that speculative capital expenditure is unknown.

(c) APA GasNet's argument that the higher rate should be determined by applying an equity beta of 1.20, instead of 0.80, appears to be arbitrary, and not supported by any evidence.

11.3 Rule 84 and applicable law

An access arrangement may provide for certain non-conforming capital expenditure to be added to a notional fund called the speculative capital expenditure account. The relevant Rule is Rule 84, which states:

> *"(1) A full access arrangement may provide that the amount of non-conforming capital expenditure, to the extent that it is not to be recovered through a surcharge on users or a capital contribution, is to be added to a notional fund (the **speculative capital expenditure account**).*
>
> *(2) The balance of the speculative capital expenditure account increases annually at a rate, determined at the AER's discretion, which may, but need not, be the rate of return implicit in a reference tariff.*

(3) If at any time the type or volume of services changes so that capital expenditure that did not, when made, comply with the new capital expenditure criteria becomes compliant, the relevant portion of the speculative capital expenditure account (including the return referable to that portion of the account) is to be withdrawn from the account and rolled into the capital base as at the commencement of the next access arrangement period."

Relevantly, the balance of the speculative capital expenditure account may be increased annually at a rate determined at the AER's discretion. This rate may be, but need not be, the rate of return implicit in a reference tariff.

BHPB submits that, when exercising its discretion to determine a rate applicable to the speculative capital expenditure account, the AER must:

(a) ensure the rate is consistent with the National Gas Objective (as required by Rule 100 of the NGR); and

(b) take into account the revenue and pricing principles.

The starting point should be the approved rate of return on capital applicable to capital expenditure generally under the access arrangement. The AER should not deviate from this unless there is a sound foundation for doing so, which is consistent with the above requirements.

An important factor to consider is that the speculative capital expenditure account includes funds that do not meet the new capital expenditure criteria (contained in Rule 79), but which *could* meet the criteria in the future and then be added to the capital base for the purposes of determining reference tariffs (see Rule 84(3)).

It seems to BHPB that it is important to recognise that, where speculative capital expenditure is added to the regulated capital base, if the rate applicable on the speculative capital expenditure account is *higher* than the approved rate of return on capital, then the reference tariffs would be higher than they would have been if the capital expenditure was not incurred until it met the new capital expenditure criteria.

11.4 No justification for a significantly higher rate than the regulated rate of return on capital

APA GasNet has submitted that the rate applicable to the speculative capital expenditure account should be 10.04% (nominal, post-tax WACC). This is significantly higher than the proposed rate of return on capital of 9.06% (nominal, post-tax WACC) (which BHPB disputes).

In determining this rate, APA GasNet has relied on its proposed WACC components for the rate of return on capital, except one: the equity beta. APA GasNet proposes that an equity beta of 1.20, instead of 0.80, apply to the rate applicable to the speculative capital expenditure account.

APA GasNet states that the higher equity beta is required because it carries a different risk profile to expenditure that is included in regulated revenue.[24] It states that the reasons are:

(a) to compensate the additional risk to the gas network that the non-conforming investment may never result in additional revenue; and

(b) to incentivise APA GasNet to undertake prudent non-conforming investments.[25]

[24] Access Arrangement Submission, p 153.

[25] Access Arrangement Submission, p 153.

APA GasNet states that speculative capital expenditure is desirable to allow gas networks to make "efficient investment decisions" on the basis of either highly uncertain, or long term demand forecasts. It suggests that the amounts of expenditure are small (eg oversizing a new pipeline to add significant additional capacity for little additional cost).[26] However, APA GasNet does not provide any detail about the type of speculative capital expenditure it contemplates undertaking (if any is contemplated).

APA GasNet states that it would have "no incentive to take risk on speculative capital if it did not earn a higher return by virtue of taking that risk, compared to lower risk regulated return options".[27]

APA GasNet has, in effect, suggested that, in order to ensure that it has an incentive to take risk on speculative capital, the equity beta be 1.20, 0.40 higher than the equity beta it proposes for the rate of return on capital. This suggests that the risk in relation to speculative capital expenditure is higher than the risk in relation to the capital base, and higher than a market portfolio of assets.

APA GasNet has not provided any evidence supporting its claims, or justifying an equity beta of 1.20. It simply reasons that a higher rate is required to give APA GasNet an incentive to undertake speculative capital expenditure, and to compensate it for the additional risk.

BHPB submits that the AER cannot be satisfied that the proposed rate is justified, or consistent with the National Gas Objectives or revenue or pricing principles. Further, without evidence or additional information, the AER cannot be satisfied that this forecast of equity beta has been "arrived at on a reasonable basis" or represents the "best forecast or estimate possible in the circumstances", as required by Rule 74(2) of the NGR.

Further, BHPB is not persuaded by APA GasNet's argument that it requires an additional incentive (in the form of a higher rate of return) before it will undertake speculative capital expenditure. The inherent incentive to undertake speculative capital expenditure is the prospect of being able to provide additional services in the future. This incentive is not lost if the rate of return is commensurate with the regulated rate of return on capital.

In addition, speculative capital expenditure is, by its nature, expenditure that does not meet the new capital expenditure criteria in Rule 79, which requires new capital expenditure to be both expenditure that would be incurred by a prudent service provider, acting efficiently in accordance with good industry practice, and justified on certain specified grounds (which, BHPB notes, do not only relate to financial matters). BHPB is not satisfied that the AER should provide a service provider with an incentive to incur capital expenditure that does not meet the criteria in Rule 79 (and which the service provider otherwise is unable to recover through a capital contribution or surcharge).

BHPB further submits that the AER should exercise caution before approving a rate that is designed to give a service provider an additional incentive to undertake speculative capital expenditure, particularly where the nature of that speculative capital expenditure is unknown. There is a risk that this could lead to perverse outcomes. For example, it might provide an incentive to characterise expenditure as speculative capital expenditure, rather than conforming capital expenditure, if it is confident that it can later add the speculative capital expenditure to the capital base.

As a consequence, for the above reasons, BHPB submits that the AER should not accept APA GasNet's proposed rate of return.

[26] Access Arrangement Submission, p 153.

[27] Access Arrangement Submission, p 153.

PART D - Terms and Conditions

12 Introduction

12.1 Issue

APA GasNet has proposed substantial changes to the Terms & Conditions.

12.2 Summary - BHPB Position

BHPB is not in a position to comment in detail on the extensive changes proposed by APA GasNet to the Terms & Conditions. However, BHPB's notes that all provisions of the Proposed Access Arrangement must be consistent with the National Gas Objective under Rule 100 of the NGR.

BHPB submits that any changes that do not have sufficient supporting information should not be approved by the AER, at least until such time as APA GasNet provides this information and stakeholders have had an opportunity to consider this information and make submissions to the AER.

13 Inadequate information in support of changes

13.1 Issue

BHPB is concerned that APA GasNet's Access Arrangement Submission and RAAI do not contain sufficient information to justify the extensive changes it has proposed to the Terms & Conditions.

13.2 BHPB Position

BHPB submits that any proposed changes to the Access Arrangement must be supported by clear information, which explains why the changes are necessary and justified, and demonstrates that the they are consistent with the National Gas Objective (as required by Rule 100 of the NGR).

Rule 43 of the NGR provides that:

> *"(1) A service provider, when submitting an access arrangement proposal … must submit, together with the proposal, access arrangement information for the access arrangement proposal."*

The required scope of this access arrangement information is set out in Rule 42:

> *"(1) Access arrangement information for an access arrangement or an access arrangement proposal is information that is reasonably necessary for users and prospective users:*
>
> *(a) to understand the background to the access arrangement or the access arrangement proposal; and*
>
> *(b) to understand the basis and derivation of the various elements of the access arrangement or the access arrangement proposal."*

While BHPB is not in a position to comment on the changes to the Terms & Conditions, and the reasons provided for those changes in the Access Arrangement Submission, BHPB submits that APA GasNet must establish that each change to the Terms & Conditions is consistent with the National Gas Objective, and explain why the change is required. BHPB submits that the AER should not approve any changes that are not clearly explained, and supported.