Economic Regulation Authority's Draft Rate of Return Guidelines: response to discussion papers and stakeholder workshop

ATCO Gas Australia

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ATCO Gas Australia welcomes the opportunity to comment on the Authority's cost of debt and cost of equity discussion papers which were circulated prior to the Stakeholder workshop held on 7 November 2013.

ATCO Gas Australia would like to note that only seven business days were made available to consider the papers, both of which contained significant developments in the ERA's approach to setting the rate of return guideline.

Given this extremely tight timeframe for responses, ATCO Gas Australia has prepared an overview of its views on the background cost of debt and equity papers and has not conducted any further analysis into the substantive issues. Given the very short timeframe for responding, and the short time before the final Guideline is due to be published, more detailed submissions on these issues are likely to be provided at the time of individual determinations.

1. Cost of Debt

1.1 Overview

The cost of debt paper (Debt Paper) presents a largely new approach to estimating the debt component of the rate of return. The Debt Paper, prepared by the ERA's consultant (Chairmont) presents six estimation mechanism options and evaluates these options against objectives and constraints provided by the Authority. ATCO Gas Australia notes that the terms of reference and scope of work for the Debt Paper were requested at the Stakeholder workshop in order to understand the origins of the objectives and constraints. However, the ERA indicated that no such terms of reference were settled as the work followed a workshop style discussion between the ERA and the consultant.

ATCO Gas Australia considers that the objectives and constraints highlighted in the Debt Paper are not consistent with the National Gas Law (NGL) or National Gas Rules (NGR), misrepresent the revenue and pricing principles and do not refer to the allowed rate of return objective (ARORO).

The NGR are clear that in determining the cost of debt, consideration of the allowed rate of return objective is paramount. The allowed rate of return must achieve the ARORO,[1] i.e. it must *"be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the*

[1] NGR 87(2)

service provider in respect of the provision of reference services",[2] and the return on debt must be estimated such that it *"contributes to the achievement of the [ARORO]".*[3]

ATCO Gas Australia does not consider that a single cost of debt approach can achieve the ARORO for all service providers. What might be the efficient financing practice for a benchmark efficient entity in one set of circumstances may be inefficient or impossible to implement in a different set of circumstances. For example, in some circumstances it may be efficient for a small regulated firm to raise debt finance to match the regulatory period. However, it would be demonstrably inefficient or impossible for a very large regulated firm to do this.

ATCO Gas Australia submits that in setting the cost of debt, the regulator must first determine what is efficient financing practice; which may include processes or practices that are designed to minimise the cost of debt and reasonably able to be implemented by the benchmark efficient entity. The approach outlined in the Debt Paper (and incorporated in the draft Guidelines) is likely to result in inefficient practices and costs for many of the businesses. Whereas a single indicative example might be set out in the Guidelines, the example should not limit the practices or penalise a business that does not adopt an inefficient practice in its particular circumstances. The ERA should consider providing guidance on the processes and practices that may be expected to lead to the lowest debt costs in a given set of circumstances.

1.2 Limiting objectives and constraints

(a) Statement of the issue

The ARORO states that the allowed rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity. It follows that the allowed return on debt must be commensurate with the costs of servicing a debt financing strategy that is efficient in the circumstances. ATCO Gas Australia submits that the appropriate regulatory task is to:

- Determine the efficient debt financing strategy that would be employed by an efficient benchmark entity in the circumstances of the business that is being regulated; and
- Set the allowed return on debt to be commensurate with the efficient costs of servicing that efficient debt financing strategy.

The ERA has chosen to estimate the allowed return on debt on the basis of a debt financing strategy that would not (or could not) be employed by an efficient benchmark entity. This approach is inconsistent with the ARORO. That is, if the allowed return on debt is set on the basis of something other than the efficient debt financing strategy that would be employed by an efficient benchmark entity in the circumstances it must, by definition, be commensurate with an *inefficient* debt financing strategy and therefore violate the ARORO.

(b) Objectives

Some of the "Objectives" that are set out in Section 4.1 of the Debt Paper appear to have the effect of ensuring that the allowed return on debt is *not* set on the basis of

[2] NGR 87(3)
[3] NGR 87(10).

the efficient debt financing strategy that would be employed by an efficient benchmark entity in the circumstances. In this case, all of the analysis which assesses the identified options against these flawed objectives is inconsistent with the ARORO and therefore invalid.

For example, Objective 1b[4] rules out setting the allowed return on debt on the basis of a staggered debt portfolio whereby the efficient benchmark entity issues $1/N^{th}$ of its debt requirements every *N* years. If this is the efficient debt financing strategy that would be employed by the efficient benchmark entity in a particular case, ruling it out up front means that the allowed return on debt will (by definition) be commensurate with an inefficient debt financing strategy.

A further example is Objective 3c[5] which requires that the allowed return on debt must provide an "unbiased estimate of costs, but no certainty of cost recovery." In the Debt Paper, an allowed return on debt that is commensurate with an efficient debt financing strategy that the efficient benchmark entity could actually implement is considered to provide "certainty of cost recovery" and is subsequently ruled out on that basis. That is, this objective requires that the allowed return on debt cannot be set to be commensurate with the efficient debt financing strategy that would be employed by an efficient benchmark entity in the circumstances. Rather, the allowed return on debt must be set on the basis of a debt financing strategy that would be impossible for the efficient benchmark entity to implement – which ATCO Gas Australia submits is clearly inconsistent with the ARORO.

In summary, ATCO Gas Australia understands that the approach outlined by the ERA and its consultant aims to set the allowed return on debt on the basis of a debt financing strategy that is impossible for the benchmark efficient entity to implement. The Rules require that the allowed return on debt must be commensurate with the costs that a benchmark efficient entity *would* incur – not the costs that a benchmark efficient entity *could not possibly* incur.

Chairmont concluded that an efficient firm should not be able to implement the efficient financing strategy because it should have no certainty of cost recovery. This represents a misunderstanding of the regulatory framework. It is the *inefficient* costs that the regulated business should have no certainty of recovery; not the *efficient* costs.

(c) AEMC consideration

The AEMC also considered the issue of implementation in its Final Determination:

> *…the return on debt estimate should reflect the efficient financing costs of a benchmark efficient service provider. It should try to create an incentive for service providers to adopt efficient financing practices and minimise the risk of creating distortions in the service provider's investment decisions*[6]

and

> *The current prevailing market conditions "one-size-fits-all" approach required under the NER, and applied under the NGR, may lead to various mis-matches between the regulatory estimate allowed by the regulator and the actual interest rate exposures of those service providers that employ debt*

[4] Debt Paper, p. 4.
[5] Debt Paper, p. 4.
[6] AEMC (2012) Final Determination, p. 73.

management practices that are not closely aligned with the benchmark assumptions.[7]

(d) AER consideration

The AER have considered this issue in their own rate of return guidelines process and have determined that the NGR require them to have regard to the '*desirability of minimising any difference between the [allowed] return on debt and the return on debt of a benchmark efficient entity referred to in the allowed rate of return objective*'.[8]

The AER also go on to note that any mismatch between the regulatory allowance and the return on debt of the benchmark efficient entity could potentially result in inefficient levels of investment[9] and that:

> *Allocative efficiency can be achieved by setting the allowed return on debt such that it reflects the lowest debt financing cost that a benchmark efficient entity could realistically achieve.*[10]

Furthermore, in their consideration of the possible approaches to the cost of debt the AER have considered how a service provider might, in practice, implement such debt management strategies.

1.3 The concept of a new entrant

ATCO Gas Australia also notes that the Debt Paper introduces the concept of a "new entrant benchmark efficient entity." The consideration of a new entrant benchmark efficient entity is not consistent with the NGL and the NGR, in particular the revenue and pricing principles and the ARORO. Providing appropriate incentives to network service providers to ensure that efficient capital investment occurs is a legitimate and complex issue that must be considered in the application of economic regulation. However, the introduction of the concept of a new entrant benchmark efficient entity is an unsuitable mechanism by which to achieve this.

The ERA raises a legitimate concern about the incentive effects that would flow from setting the allowed return on new debt required to fund CAPEX at a level that is materially different from the contemporaneous efficient cost of debt. For example, if the allowed return on new debt was materially lower than the prevailing cost, the regulated business would have an incentive to underspend on CAPEX. Although this is a legitimate concern, it is not (in terms of economic efficiency) optimally solved by setting the allowed return on all debt equal to the prevailing efficient cost. Whereas this solution would create the correct short-term incentives for new CAPEX (in that the allowed return matches the efficient cost), it can cause a material mis-match between the allowed return and the efficient cost of servicing the firm's embedded debt. This mis-match could create a competing perverse incentive when the recovery of longer term debt costs is at risk.

For example, suppose the regulator determines that the efficient debt financing practice is to raise $1/N^{th}$ of the firm's debt each year by issuing N-year bonds. If interest rates rise steadily over time (as may well be the case over the coming regulatory period) the spot rate can be materially higher than the actual efficient cost of servicing the debt (most of which was issued when rates were lower). This results

[7] AEMC (2012) Final Determination, p. 85.
[8] NGR, r. 87(11)(a).
[9] AER, Explanatory Statement Draft Rate of Return Guideline, p. 88.
[10] AER, Explanatory Statement Draft Rate of Return Guideline, p. 77.

in allocative inefficiencies as consumers will be paying more than the efficient cost for the regulated service. It will also result in productive inefficiencies in the long-run. Regulated asset owners will understand that the allowed returns will (from time to time) differ materially from the efficient costs. Although any such mis-match will average out over time, having a mis-match during any regulatory period is a risk that the asset owner will need to consider and manage. This risk is likely to affect investment decisions in the long-run. Section 2 of the Queensland Treasury Corporation submission to the AER contains more detail on this point and proposals for how potential incentive problems can be addressed.[11]

ATCO Gas Australia submits that the optimal way of creating the correct incentives is to set the allowed return on every component of the regulated firm's debt equal to the efficient cost of servicing that component. For example, if the regulator determines that the efficient debt financing practice is to raise $1/N^{th}$ of the firm's debt each year by issuing *N*-year bonds, the allowed return on debt would be set as an average of the current benchmark cost of debt and the benchmark costs over the past *N* years. This has the effect of ensuring that the return that is allowed in relation to embedded debt matches the efficient cost of the embedded debt and that the allowed return in relation to new debt (for CAPEX) matches the efficient cost of the new debt. This is essentially the approach that has been adopted by the AER. Alternatively, if the regulator considered that the efficient debt practice in the circumstances would be for the firm to issue *all* of its debt at the beginning of the regulatory period, there would be no embedded debt and the allowed return would be based on the spot rate. In summary, economic efficiency and the NGR both require that the allowed return on debt should be set so that the revenue allowance is sufficient to meet the efficient cost of servicing each component of the firm's debt.

1.4 Unbiasedness and recovery over the long run

ATCO Gas Australia understands that the ERA's preference, according to the objectives and constraints outlined in the Debt Paper, is for the recovery of costs in the long run and not within each regulatory period. Recovering costs over the long-run, rather than over the regulatory period in which they are incurred, introduces additional risk for the business and customers. This risk arises from uncertainty of cost recovery and reduced incentives for a business to invest in providing services in periods in which it was determined that it would not recover the costs of that investment. This will have detrimental impacts on services within a period and significant impacts on services over the longer term. The AEMC considered this issue of cost recovery in the drafting of the rule change in which it was noted that:

> *…there should be consideration of the extent to which the methodology matches the funding costs expected to be incurred by a benchmark efficient service provider over the regulatory period…*[12]

The AEMC has also been very clear that the allowed return must be set to reflect the efficient costs of the benchmark efficient entity in each and every regulatory period. It is not acceptable for the allowed return to differ from the efficient costs of the benchmark efficient entity in any regulatory period, even though the allowed return might reflect the efficient costs on average over the long-run.[13]

[11] http://www.aer.gov.au/sites/default/files/QTC%2C%20Submission%20to%20draft%20AER%20rate%20of%20return%20guideline%20-%2011%20Oct%202013f.pdf.
[12] AEMC, Draft Rule Determination, p. 92.
[13] AEMC, Draft Rule Determination, p. 44.

1.5 Term of Debt

ATCO Gas Australia notes that the Debt Paper for the cost of debt does not assess the appropriate term of debt and simply assumes that five years is an appropriate term. The ERA has dismissed submissions from stakeholders and its own evidence which demonstrates that a 10 year term is more appropriate. The ERA's own Explanatory Statement reports that the practise of the comparable firms examined is to issue debt with 10 or more years to maturity[14]. The ERA goes on to note that that the efficient practise of these firms is to stagger their debt issuances over time such that the average remaining time to maturity is approximately six years.

ATCO Gas Australia refers to the submission from the ENA in response to the Draft Rate of Return Guideline of the Australian Energy Regulator and also provided to the ERA for its consideration. This submission contains findings from confidential information provided by the ENA's industry members regarding the term at issuance of actual debt portfolios. This information indicates that the actual practise of Australian energy businesses is to issue debt longer than 10 years. ATCO Gas Australia would like to understand why the actual practise of Australian energy businesses is deemed inefficient and not relevant in the setting of the benchmark efficient cost of debt.

1.6 Compensation for increased costs

ATCO Gas Australia considers that the ERA's proposed approach to include an an annual update process will result in additional debt raising costs. The options recommended in the Debt Paper do not reflect the current practice of regulated businesses. Therefore, to implement those practices will introduce new costs. An increase in the level of deemed efficient debt raising costs would be required to adequately reflect the costs associated with the change in financing practices and processes. Under the ERA's options it is anticipated that there would also be increased activity involved with hedging against the annual update and incorporating any changes in to the tariff variation process. If the methodology adopted by the ERA were to not properly match the annual cost change, then this introduces additional risk and could introduce further conflict between businesses and regulators each year, increasing the costs further.

The cost of new issue premiums should also be taken into consideration to recognise that businesses do not trade in the secondary market from which the ERA take their sample for the cost of debt.

At a minimum, the costs of this proposal should be estimated and considered against the efficiency benefits considered by the ERA. The methodology should also be transparent and documented.

1.7 ATCO Gas Australia's position

ATCO Gas Australia considers that benchmark efficient costs should not be set using estimation mechanisms which are not able to be replicated by regulated business as this would make it impossible for a service provider to adopt the deemed efficient financing practises which may result in distortions in investment decisions.

ATCO Gas Australia is aware that the estimation methods outlined in the NGR will not be practically implementable for every business. Therefore, focus should be on whether the individual business has chosen an efficient practice, given the circumstances. In this circumstance, the ERA's task would be to evaluate what a

[14] Explanatory statement, p.74

benchmark efficient entity would do in these specific circumstances and calculate the corresponding efficient costs.

ATCO Gas Australia considers that the concept in the NGL and NGR that a regulated business must be able to recover *at least* its efficient costs should not be overlooked when weighting up both the efficient costs and the consequences to businesses and customers of establishing circumstances where a business is unable to recover its efficient costs. This should include consideration of any costs associated with changing practices where only one approach is prescribed.

ATCO Gas Australia considers that it would be desirable for the ERA to explain why it has arrived at a conclusion that is opposite to what the AEMC intended and the conclusion reached by the AER prior to excluding a range of financing practices that are efficient in certain circumstances. It would also be desirable for the ERA to provide further reasoning as to why it has adopted a different view on the term of debt than that adopted by the AER, submitted practices of the regulated business, and derived from its own analysis.

ATCO Gas Australia considers that if the Rate of Return Guideline restricts the cost of debt to a single estimation mechanism, the regulator and the business would be in conflict from the outset despite the efficient practices of the business. Indeed, it is possible for a business that adopts the Guidelines approach to establish inefficient financing costs and be non-compliant with the NGR. Although the Guideline is non-binding, it would be preferable if it did not establish circumstances at the outset which led the regulator or the business into error.

If the Debt Paper was corrected for issues identified in previous sections, the preferred options B and C would no longer meet the objectives. That is, if the estimation mechanisms considered were assessed against the objectives of ability to be implemented and recovery of efficient cost over the regulatory period several of the ERA's approaches would no longer be valid. This more appropriate set of objectives would lead to the three approaches set out in 87 (10) of the NGR as the estimation mechanisms.

a) *The return that would be required by debt investors in a benchmark efficient entity if it raised debt at the time or shortly before the time when the AER's decision on the access arrangement for that access arrangement period is made;*
b) *The average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over a historical period prior to the commencement if a regulatory year in the access arrangement period; or*
c) *Some combination of the returns referred to in subrules (a) and (b)*

2. Cost of Equity

ATCO Gas Australia continues to hold the view that the change in the rules should be expected to be followed by a change in approach. The continued exclusion of all models other than the SL CAPM for the estimation of the cost of equity remains inconsistent with ATCO Gas Australia's view of the requirements under rule 87. Further, ATCO Gas Australia considers that not only are other model capable of estimating the cost of equity, considered properly these models are capable of delivering a better estimate of the cost of equity than reliance on the SL CAPM alone, particularly where its known bias and issues remain unaddressed.

ATCO Gas Australia acknowledges that the cost of equity background paper (Equity Paper) presents a revised five step approach for determining the return on equity which is helpful to the process. Step 1 involves identifying relevant material and evaluating its role; Step 2 involves the estimation of parameter values; Step 3 involves the estimation of the return on equity; Step 4 considers all other relevant material; and Step 5 finalises the return on equity. The ERA contends that this approach:

> *…would have regard to a wide range of material, taking into account relevant models for the return on equity, as well as a range of other relevant information. The revised approach could weight each piece of information according to its merits at the time of each determination.*[15]

However, ATCO Gas Australia notes that an assessment of the return on equity against the ARORO continues to be missing from the proposed five step process. This is the overarching objective against which the cost of equity must be measured, as the cost of equity must contribute to the achievement of the ARORO,[16] and should not be excluded from the ERA's analysis. Therefore, it is difficult to comment on whether the ERA's proposed approach is capable of achieving the ARORO.

Consistent with previous submissions made to the ERA, ATCO Gas Australia maintains that the best way of achieving the ARORO is through the consideration of all relevant models, methods and other information and not limited through the adoption of additional criteria that are not set out in the NGL or NGR. This will jeopardise the ability of the Guideline to produce results that achieve the ARORO.

2.1 Understanding of the five step process

The following discussion presents ATCO Gas Australia's understanding of the five step process as set out in the Equity Paper and expanded on in discussions with the ERA at the stakeholder forum. ATCO Gas Australia welcomes clarification where it may have misunderstood the ERA's position.

(a) Step 1 – Identifying relevant material and its role

Relevant estimation methods, models, data and other evidence are identified and considered. The ERA is currently of the opinion that the Sharpe Lintner CAPM is the only relevant model and has therefore not considered return on equity estimates derived from other cost of equity models. ATCO Gas Australia disagrees with this assessment and questions the role of this step if its application results in the exclusion of relevant material. In this regard, ATCO Gas Australia reiterates its previous submission to the ERA – that there is more than one model that is relevant in achieving the ARORO.

The ERA must have regard to relevant estimation methods, models etc. Under the new Rules, the regulatory task is not one of identifying a best model and rejecting all models that are considered to be inferior. A model should not be rejected if it can be shown that the model would result in the final regulatory estimate being more likely to reflect the efficient financing costs of a benchmark efficient entity. The same point applies to evidence more generally – regard must be given to relevant evidence, and it should not be rejected on the basis that there is "better" evidence. Better evidence can be given more weight, but evidence can only be rejected if it is irrelevant.

[15] ERA, A potential approach to estimating the return on equity, p.2
[16] NGR 87(6).

To the extent that relevant material is excluded in this step results in the subsequent steps becoming redundant or less efficient due to the need to reintroduce material that could have remained relevant in this step. The discussion of the remaining steps has the effect of compounding the problems with step one. Nevertheless, ATCO Gas Australia has provided further commentary to assist the ERA in its process.

(b) Step 2 – Estimate parameter values

As the SL CAPM is the only model the ERA currently considers to be relevant, the risk free rate, market risk premium and equity beta are the only parameters that require estimation. The estimation methods are restricted to those discussed in the Explanatory Statement to the Draft Guideline. Where there is some uncertainty, or use of multiple estimation methods, a range will be determined for the parameter. Point estimates within the range will then be selected with reference to all relevant information.

ATCO Gas Australia considers that further clarity would be beneficial on what the ranges constructed by the ERA mean and defining the role of each range in determining the return on equity. For example, it would be useful to understand which ranges constitute possible values for estimates, which ranges represent confidence intervals, how the ranges relate to each other, and how they will be used by the regulator to arrive at a point estimate. ATCO Gas Australia understands from the Stakeholder Forum that the ERA intends to base its final parameter estimates on all evidence which is deemed to be relevant. In this case, it is not clear why ranges need to be set out.

In particular, at the Stakeholder Forum, the ERA indicated that it did not intend to employ ranges in the same way as the AER has proposed. The AER has proposed that a small subset of the relevant information would be used to construct a range for each parameter and then all other relevant evidence would only be used to select a point estimate from within the range. Under this approach, the initial range acts to constrain the final parameter value – even if a large body of other relevant evidence points to a value outside of the initial range. The ERA has indicated that it does not intend to use ranges in this manner.

Rather, the ERA has indicated that its approach to parameter estimation will be to set out all evidence that is relevant to that parameter and then use all of this evidence to select a point estimate. In this case, it is not clear what purpose is served by the establishment of a range. It is possible, for example, that each piece of relevant evidence might support a range of values for the parameter in question. In such a case, it might be useful for the ERA to set out these ranges as part of its explanation for the final parameter value that it has selected.

As general practice, it would be helpful if wherever ranges are used clear explanations are provided as to what the range represents. If it is a statistical confidence interval or some other representation of estimation error this should be explained. Other ranges may reflect variation across different market conditions. For example, the ERA's assessment of the minimum reasonable value of a parameter in extreme market conditions through to the maximum reasonable value in conditions at the other extreme. Other ranges may reflect the variation in point estimates across different estimation methods, and so on. Since all of these ranges have very different interpretations and would be used in very different ways, the definition of any range used should be clearly explained, including how that range has been determined (i.e., how the upper and lower bounds were obtained) and how that range was used in determining a final point estimate for the parameter in question.

One example that was discussed at the Stakeholder Forum is the use of ranges for the Market risk premium (MRP) parameter. The proposed range of 5.0 - 7.5% (around a point estimate of 6%) was presented as representing the ERA's assessment of the statistical precision of historical excess returns data. That is, the range reflects the possibility of statistical estimation error around an estimate of the MRP in long-term average market conditions. It would be inconsistent and wrong to then interpret a range that reflects statistical imprecision as implying that the MRP could not be below 5.0% or above 7.5% in any specific market conditions. For example, it is quite feasible that the MRP could vary between 2% and 10% in different market conditions, and that in these circumstances the long-run mean could be 6% within a range of 5.0 to 7.5%.

In its Equity Paper, the ERA proposes to test the reasonableness of its estimate of the required return on the market in the current market conditions by determining whether its current estimate lies within the 95% confidence interval (one type of range) around its estimate of the long-run historical average return on the market.[17] This test appears to confuse variation in required returns over different market conditions, with a range based on the statistical precision of an estimate for average market conditions, as set out above.

At the Stakeholder Forum, the ERA indicated that it intended to consider all evidence that was relevant to a particular parameter in a single step.[18] By contrast, the AER has proposed an approach whereby a subset of the relevant evidence is used to set an initial range for the parameter, another subset of relevant evidence is used to select a point estimate from within the range, and still other relevant evidence is used as a cross-check at either the cost of equity or overall WACC levels.

Under the ERA's approach, at each determination, stakeholders would make submissions about what evidence is relevant to the estimation of each parameter of any model that is not eliminated by Step 1. The ERA would then make a determination of whether each piece of evidence is relevant or irrelevant. All relevant evidence would then be used to inform the estimate of the relevant parameter.

In this regard, ATCO Gas Australia submits that the evidence that is relevant to the estimation of beta includes, but is not limited to:

- Regression analysis of domestic and international comparables;
- Evidence from dividend discount models applied at an industry level to comparable firms;
- Evidence that, when used in the SL CAPM, regression-based beta estimates systematically understate the required return on low-beta stocks; and
- Evidence that, when used in the SL CAPM, regression-based beta estimates systematically understate the required return on high book-to-market stocks.

ATCO Gas Australia submits that the evidence that is relevant to the estimation of MRP includes, but is not limited to:

- The long-run average of historical excess stock returns;
- The difference between the long-run average market return and the contemporaneous risk-free rate (the so-called Wright approach);

[17] Equity Paper, Paragraph 49.
[18] For example, at the Stakeholder Forum, the ERA indicated that in relation to beta, it would consider evidence from regression analysis of historical stock returns, evidence showing that the SL CAPM systematically underestimates returns for low-beta firms, and evidence showing that the SL CAPM systematically underestimates returns for high book-to-market firms, and any other evidence that might inform its estimate of beta. All of this evidence would be considered in a single step and would inform the ERA's final point estimate of beta.

- Dividend discount models;
- Indicator variables that have been demonstrated, in the relevant literature, to be related to equity risk premiums (e.g., debt risk premiums);and
- Comparisons of the current implied return on the market with historical estimates.

(c) Step 3 – Estimate the return on equity

The parameter estimates are then used to populate the relevant models in order to arrive at a cost of equity. If multiple models were to be used these estimates would have to be weighted to arrive at a single estimate for the cost of equity. In the case of the ERA, only the SL CAPM has been deemed relevant at this stage, therefore its estimate receives 100% weighting.

(d) Step 4 – Consider other relevant material

ATCO Gas Australia understands that the ERA intends to use all information that is relevant for estimating individual parameters in Step 2. In particular, all evidence that can inform the estimates of beta and MRP would be considered in Step 2.

In Step 4, a range of other material will be considered in order to test the reasonableness of the rate of return produced in Step 3. If these tests indicate that the return on equity determined in Step 3 is unreasonable, the ERA would be led to reconsider either the parameter values it adopted in Step 2 and/or its reliance on the SL CAPM.

The Equity Paper sets out some examples of evidence that might be used in Step 4. One example is the evidence that suggests that, when used in the SL CAPM, beta estimates formed on the basis of regression analysis tend to underestimate returns for low-beta stocks. ATCO Gas Australia considers that this evidence should be taken into account in Step 2 when selecting the beta value to be used in the SL CAPM. All evidence that might reasonably inform the beta value should be considered and weighed up in Step 2. If this subset of the available evidence is reserved for consideration in Step 4, it would only serve to indicate that the beta estimate adopted in Step 2 is too low and needs to be revised. It would be more efficient to simply deal with all evidence that is specifically relevant to beta in one step. .

Another example provided in the Equity Paper is evidence regarding the required return on the market portfolio. Under the SL CAPM, the regulatory estimate of the required return on the average stock (or market) is $r_f + MRP$. Any evidence suggesting that the regulatory estimate of the required return on the average stock is too low (or too high) to be considered reasonable would lead to a change in the estimate of MRP. Again, all evidence that might reasonably inform the estimate of MRP should be dealt with together in Step 2.

ATCO Gas Australia submits that the overall return on equity test should involve a degree of both quantitative and qualitative analysis to ensure that the cost of equity estimate meets the ARORO. In its current form this step appears to be an empirical back calculation to check the overall estimate from the adoption of a single model without any reference to whether the outcome achieves the ARORO.

(e) Step 5 – Determine return on equity

The estimate for the costs of equity taking into account all relevant information is finalised.

2.2 ATCO Gas Australia's position

The ERA has indicated that it has developed an approach which takes into account relevant information. However, the approach adopted by the ERA can not be claimed to be based on the transparent multi-model approach proposed by the ENA.

ATCO Gas Australia does not consider the SL CAPM model the only relevant model for the purposes of achieving the ARORO. Indeed, ATCO Gas Australia considers that this model is not even the best model and suffers as many and more significant flaws than any one of the other models presented through this process. This is why ATCO Gas Australia continues to consider that an approach that properly assesses multiple models and material to form a judgement about an estimate of the return on equity as proposed previously by ATCO Gas Australia and initially by the ENA to be a preferred method, and relevant for the purposes of achieving the ARORO.

3. Other issues

This section sets out a number of technical issues that are not central to the key issues set out above, but which the ERA should consider prior to finalising the Guidelines.

- Paragraph 51 of the Equity Paper incorporates an element of circularity.
- The percentile bands relating to the VIX in Figures 2 and 3 are conditional upon the particular period of data that is examined. The interpretation and use of this data would depend on the particular period of data on which the calculations were based. For example, it would be inappropriate to interpret the calculations as representing "normal" or long-run average conditions if the data was drawn primarily (or almost entirely) from periods of extreme financial crisis. Even if this is the only data that is available to the ERA this "crisis" data should not be interpreted as "normal" data.
- The Equity Paper has confused broker WACC estimates with independent expert valuation reports.[19]
- In relation to independent expert reports, the Equity Paper cites the CEPA (2013) report commissioned by the AER. Subsequent submissions to the AER have identified a number of methodological flaws, misinterpretations and misrepresentations in that report. The ERA should address these subsequent submissions if it seeks to rely on the CEPA report.
- The standard approach adopted in independent expert reports is to apply a single discount rate over the life of the asset in question. This represents the cost of long-term equity capital. If the task is not to estimate the cost of long-term equity capital,[20] but rather the cost of short-term equity capital:
    - It should explain why that is the relevant regulatory task; and

[19] ERA Equity Paper, p. 13.
[20] To be clear, "the cost of long-term equity capital" is the current cost (in the prevailing conditions in the market) of long-term equity capital – the current return that would be required by a long-term equity investor in such an infrastructure asset. This is quite different from the average cost of equity over some long-term historical period.

    - It should set out any evidence it has of investors (in the prevailing market conditions) applying different discount rates to:
        - cash flows from the first five years of a comparable investment; and
        - cash flows from the remainder of the life of a comparable investment.
- The Equity Paper states that "in a particular market condition, the return on equity may be significantly higher than the return on debt and vice versa."[21] This implies that in a different market condition the return on debt may be significantly higher than the return on equity, which cannot possibly be what the ERA means to convey.
- The statistical tests set out in the Appendix are not relevant. For example, the cointegration tests that are performed where one or more of the variables in question are stationary have no meaning. If these statistical tests are to be performed and included, the ERA should clearly state their role, how they have been used, and the extent to which they have informed parameter estimates or allowed returns.
- It would be useful to understand how the ERA obtained the Brailsford, Handley and Maheswaran (2012) data. It should also respond to the submissions that have been made to the AER demonstrating the flaws in that data series.[22]
- The Equity Paper should be careful not to confuse the terms "mean reverting" and "stationary."

4. Gamma

In relation to the estimation of gamma, ATCO Gas Australia notes that participants in the stakeholder forum requested an update on the ERA's consideration of gamma. The ERA responded that their position had not changed since the publication of the Draft Guidelines and associated Explanatory Statement. Given this response, ATCO Gas Australia is expecting no change in the conceptual approach to estimating gamma in the ERA's Final Guidelines.

5. Next steps

Having regard to the matters set out in this submission, ATCO Gas Australia requests that the ERA reconsider the positions put forward in their cost of debt and cost of equity papers. It is incumbent on the ERA to ensure that the Guidelines will:

- allow the ERA to exercise its functions and powers *"…in a manner that will or is likely to contribute to the achievement of the national gas objective"*;
- allow the ERA to take into account the revenue and pricing principles; and
- assist the ERA at an access arrangement revision to determine a rate of return that achieves the ARORO.

[21] ERA Equity Paper, para 34.
[22] http://www.aer.gov.au/sites/default/files/Report%2015%20-%20ENAMRPReport28062013%20Final.pdf.