Response to AER Consultation paper: Rate of return guidelines

The Financial Investor Group

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Contents

1. Executive Summary

1.1 Introduction

The Financial Investor Group (FIG) welcomes the opportunity to provide a submission in response to the AER's Consultation Paper on the development of Rate of Return Guidelines (Guidelines) which it is required to make and publish under the National Electricity Rules (NER) and the National Gas Rules (NGR).

The FIG is an affiliation of the major private investors in Australian energy network assets. The FIG therefore has a strong interest in how Australia's energy network infrastructure is regulated, both directly and on behalf of its members' investors.

Consistent with this, our submission aims to bring a commercial and practical perspective to regulatory debate on the rate of return. The FIG believes this perspective is critical because it is the same one that investors bring when making investment decisions.

The changes which have been made to the rate of return framework under the NER and NGR are, arguably, the most significant component of the rule changes recently put in place by the AEMC. In broad terms, the new framework:

- Gives primacy to the requirement for the regulator to set an allowed rate of return that meets the allowed rate of return objective for a regulatory decision
- Requires the AER to explicitly consider a broad range of models, methodologies, data and evidence in estimating the allowed rate of return.

These requirements represent a significant shift from the previous framework and it is clear that the rule makers envisaged that achieving them would explicitly involve an exercise of judgment that must be made with due care and responsibility.

The FIG considers that the development of the Guidelines provide an important opportunity for the AER to provide clarity to service providers on the methods that the AER will consider to estimate the rate of return and its underlying components, and to narrow the debate on various matters. As such, the Guidelines are designed to play an important role in providing the certainty and predictability that investors require to make their investment decisions.

From an investor perspective, however, we appear to have been in this position before (in 2009 when the WACC parameter review was undertaken, albeit under different circumstances), but based on what ensued, the results were less than satisfactory.

The FIG considers that the AER's focus going forward will need to be on improving the quality and transparency of its decisions.

1.2 Key issues

This submission aims to highlight a range of issues which are of considerable importance to the FIG, and which we consider ought to form part of the approach that the AER will adopt in setting the allowed rate of return.

A multiple model approach to the estimation of the rate of return

The FIG notes that a multiple model approach to the estimation of the allowed rate of return is consistent with the policy intent of the AEMC. The FIG believes that a multiple model

approach, if used sensibly, has the potential to produce a more informed estimate of the rate of return despite the limitations that may exist with individual models.

We also maintain that reasonableness checks should continue to play an important role in reality-checking the outcomes produced in the context of a multiple model approach and on this basis we support the AER's proposal to continue with this. However, as we discuss below and in this submission, such checks must be applied in a genuine way to be truly meaningful and useful.

Reasonableness checks can be used to support a more outcomes focussed approach if they have sufficient empirical value

The FIG considers that when applied properly, reasonableness checks can assist in providing confidence that the allowed rate of return is adequate and meets the allowed rate of return objective. This is particularly important to the FIG given that our members have to compete with other regulated businesses (domestically as well as offshore) for access to capital, in an environment which is presently still characterised by significant constraints.

As we highlight in this submission, past AER decisions have:

- Applied checks with a relatively lower empirical value (e.g. broker reports and RAB multiples) thus diluting the value of such checks
- Inferred the AER's estimate of the required rate of return to be reasonable when they are not, thus rendering them meaningless.

In the AER's most recent decision on the Victorian gas businesses, for example, the FIG considers that the AER incorrectly dismissed evidence from independent expert reports which provided support for the argument that the cost of equity has not declined to levels suggested by the historically low bond yields which were observed at the time of the decision. Had this evidence been given due consideration, it may have prompted a reassessment of the AER's approach to applying the CAPM to estimate the required return on equity under unusual market conditions.

If reasonableness checks are to continue to have a useful place in the AER's approach, we recommend that the AER seek to apply them in a more rational and structured manner, and perhaps assign weights to such tests to ensure that the most useful tests are given the highest weights (and vice versa).

Discretion must be exercised carefully and responsibly and be reflected in well-reasoned and transparent judgments

The new rate of return framework provides significantly greater scope for the AER to exercise its discretion in relation to a wide range of matters relevant to estimating the rate of return. The FIG notes that this was a deliberate design feature which the AEMC sought to put in place to ensure that the AER was not unduly restricted in its ability to make the best estimate of the rate of return.

The FIG considers that the AER's approach going forward should aim to focus on improving the quality and transparency of its decisions. The use of a multiple model approach to estimating the allowed rate of return will certainly require the exercise of sound judgment and the AER should ensure that its decisions are made logically and objectively.

2. Background

The FIG welcomes the opportunity to provide a submission responding to the AER's Consultation Paper (the Consultation Paper) on the development of the Guidelines).

The Consultation Paper outlines the issues that AER intends to take into account in developing the Guidelines. The Guidelines will then inform the approach the AER will take in particular regulatory decisions to determine the allowed rate of return in accordance with the National Electricity Objective ("NEO") and the NER, the National Gas Objective ("NGO") and the NGR and the allowed rate of return objective.

2.1 The Financial Investor Group

The FIG is an affiliation of the major private investors in Australian energy network assets. Its members compete for the ownership of infrastructure (including regulated energy network) assets, and for investors' funds that are, or may be, seeking exposure to the asset class. Specifically, this submission has been prepared on behalf of:

- ATCO Gas Australia
- APA Group
- Cheung Kong Infrastructure and Power Assets Holdings Ltd
- The DUET Group
- Envestra
- Hastings Funds Management
- Singapore Power Group
- Spark Infrastructure.

Appendix A provides more detail on the FIG members and the assets they own.

The key assets owned by FIG members that are relevant to this review include:

- The Victorian and South Australian electricity network industry (i.e. where it has been privatised in Australia)

- A significant proportion of the national gas network industry, particularly where it is subject to full regulation (i.e. distribution).

The FIG therefore has a strong interest in how Australia's energy network infrastructure is regulated, both directly and on behalf of its members' investors.

The FIG typically leaves regulatory issues to its members and their asset companies, which are often the regulated entities. They work closely with regulators and the relevant industry associations. Occasionally, however, a regulatory issue arises which the FIG believes is sufficiently important to warrant investors separately communicating their perspective.

The FIG was, for example, first drawn together in 2008 by concerns about the nature and direction of the AER's first review of the weighted average cost of capital (WACC) parameters for electricity network businesses under the NER. In particular, the FIG commented on the AER's approach, which in estimating parameter values, focused almost exclusively on

technical matters and paid little regard to market conditions.[1] This was in the midst of the Global Financial Crisis (GFC), the impact of which continues to affect markets today.

The FIG also made submissions in 2011 during the AEMC's consideration of the electricity and gas industry rule change proposals, which precipitated this consultation process, and to the review of the limited merits review regime.[2]

The rate of return Guidelines are of sufficient importance to warrant a FIG submission.

FIG submissions aim to bring a commercial and practical perspective to regulatory debates which can become highly technical and quite contested between stakeholders that are dealing with these issues on an ongoing basis. The FIG believes this perspective is critical because it is the same one that investors bring when making investment decisions.

2.2 Submission overview

The Consultation Paper discusses the issues that the AER considers relevant in the development of the Guidelines. Within this context, the AER poses some specific questions, the responses to which it considers will assist in the development process.

This submission responds to those specific questions where relevant, whilst also discussing some broader issues raised by the AER's Consultation Paper, which are relevant to the development of the Guidelines.

Consistent with this:

- Section 3: Provides some comments relevant to the issues raised in the Consultation Paper and certain views the AER expresses. It also provides context for the answers provided to the specific questions asked

- Section 4: Answers the specific questions posed by the AER.

[1] FIG, Submission to the AER's WACC parameter review: The investor perspective: January 2009. The FIG has also made submissions on reviews of the cost of capital by Western Australia's Economic Regulation Authority.
[2] FIG, Submission to the AEMC Consultation Papers: rule change proposals relating to the economic regulation of electricity (ERC0134 and ERC0135) and gas (GRC0011) networks, 8 December 2011; and FIG, Review of the Limited Merits Review Regime in the National Electricity Law and National Gas Law, 13 April 2012. The FIG has made a few supplementary submissions as part of these processes.

3. Key issues in developing the Guidelines

The FIG welcomes the AER's 'Better Regulation' program, which:

"...is directed at delivering an improved regulatory framework focused on the long term interests of electricity and gas consumers..."[3]

The workstreams underlying the Better Regulation Program include the changes outlined in the AEMC's network rule change determination, of which the rate of return is a significant component.

The FIG supports the new framework and considers that the development of the rate of return Guidelines provides an important opportunity for the AER to use the new rules to adopt a better approach to determining the allowed rate of return. The FIG therefore welcomes the opportunity to contribute to the development of the Guidelines.

This section provides the FIG's comments on the broader views raised by the AER's Consultation Paper. In developing our response, the FIG has taken the opportunity to reinforce the principles which underpin the AEMC's decision on the design of the new rate of return framework, given the AEMC's clear policy intent on the need for change in relation to how regulators estimate the appropriate rate of return.

3.1 The AER's obligations under the new rules

The FIG notes that, in relation to the AER's obligations, the new rules:

- Require the AER to adopt an approach to meet the allowed rate of return objective for a regulatory decision, which is specifically relevant to the benchmark efficient entity in respect of the provision of standard control services/ prescribed transmission services that is established for the service provider in question
- Oblige the AER to consider explicitly a broad range of evidence
- Provide the AER with more discretion than was previously the case.

The rule makers envisaged that meeting the approved rate of return objective would explicitly involve an exercise of judgment to meet this overriding test.

The FIG also notes that the AER needs to be able to make well-reasoned and transparent decisions that are also more accessible to a wider range of stakeholders.

3.2 Determining the rate of return

The new rate of return framework requires the AER to set the rate of return such that it satisfies the allowed rate of return objective. The new framework specifies that in estimating the allowed rate of return as a weighted average of the return on equity and the return on debt, the AER must have regard to, amongst other things, relevant estimation methods, financial models, market data and other evidence.

Furthermore, the rate of return on equity must be estimated:

- Such that it contributes to the achievement of the allowed rate of return objective

[3] AER, Better Regulation: an integrated package – Promoting efficient investment in the interests of all energy consumers, May 2013, page 3

- Having regard to the prevailing conditions in the market for funds.

The rate of return on debt must also be estimated such that it contributes to the allowed rate of return objective and the new rules now provide the AER with the discretion to adopt a backward-looking, forward-looking or hybrid approach to estimating the return on debt.

The FIG understands that the new framework has been designed to be less prescriptive than the previous framework, in order to provide the AER with the flexibility to consider a broader range of methodologies, data and evidence in estimating the rate of return.

This change represents a significant shift from the previous framework which applied a strong (almost exclusive) focus on the CAPM (including with cross checks) in estimating the allowed rate of return. The AEMC clearly did not consider this to be an adequate approach and has designed the new framework to ensure that a broader range of methodologies, data and evidence is considered to allow the best estimate of the rate of return to be made at the time each regulatory decision is made.

The FIG is supportive of this design and considers that the new framework will allow the AER to better incorporate market evidence and other relevant data into its approach. This will ensure that the rate of return estimation process is outcomes focussed.

The FIG also notes that within the new framework, certainty is provided by requiring the AER to publish Guidelines which will set out the approach the AER intends to take to estimate the rate of return in accordance with its obligations under the rules.[4] We support this approach and consider that the objective of the Guidelines should be:

- To provide sufficient clarity to service providers on the methods that the AER will consider to estimate the rate of return and its underlying components
- To assist in narrowing the debate on various matters
- To outline how the AER proposes to deal with unusual market conditions which may need to be considered at the time of its decision.

3.3 The need to consider a broad range of evidence

The new rules include an explicit requirement that a broad range of evidence must be considered in the determination of the allowed rate of return. As the AER noted in its Consultation Paper, to meet this requirement of the rules, the AER has the option to consider such information as part of its primary methodology or as part of applying reasonableness checks.

The FIG does not wish to engage in detailed debate about the technical issues associated with the merits of different models and estimation methods in this submission, as these matters will likely be addressed in the submission from the Energy Networks Association (ENA), amongst others. For the purposes of this submission, the FIG notes that estimating the allowed rate of return is not an exact science and there is potentially a wide range of evidence that could be relevant to the assessment of the allowed rate of return, including evidence on the rates of returns for regulated utilities in other sectors that regulated gas and electricity service providers compete with for access to capital.

The most critical issue for the FIG (and under the rate of return objective) is to produce the right overall outcome (i.e. provide a rate of return which is consistent with the long term

[4] The FIG also supports the retention of a merits review framework. We note that the SCER has proposed to retain a limited merits review framework but changes will be made to the Laws and the Rules to ensure that the long term interests of consumers receive appropriate attention at all stages of the review process.

interests of consumers). The FIG believes that providing adequate incentives for investment is essential to serving consumers' long term interests.

3.3.1 Regulatory discretion and accountability

Irrespective of the approach the AER adopts in making particular rate of return decisions, the new rules explicitly recognise, more so than the versions that preceded them, the degree of regulatory judgment to be exercised. This is likely to be particularly helpful in uncertain market conditions, where information or evidence from a broader range of sources might assist the AER in forming its views on various parameters.

However, as the AEMC has noted, this greater discretion must be exercised with due care and responsibility.

"In discharging their economic regulatory functions, the AER and the ERA are required to consider their decisions in terms of achieving the NEO, NGO and the RPP. The regulator should be expected to follow good administrative decision-making practice. In this context, such practice requires a full and considered explanation for decisions and adherence to due process, rigour and objectivity required under administrative law principles. That the regulator would strive for the highest quality estimates to best achieve the NEO, NGO and the RPP can be necessarily expected."[5]

The new rules seek therefore *"...to give more discretion with appropriate accountability to the AER to make appropriate regulatory decisions."*[6]

3.3.2 The need for sound judgement

Incorporating theoretical and practical evidence from a broader range of sources is one of the distinguishing features of the new rate of return framework. Even more important is the requirement to satisfy the overriding test of the rate of return objective. The AEMC's Final Position Paper explained this meant as follows:

"The final position rule has been structured in such a way as to reinforce the focus of the estimate of the rate of return to be on the achievement of the allowed rate of return objective. Estimating the return on equity and return on debt are likely to be necessary components to determine the overall rate of return that meets the overall objective. However, as achieving the overall objective has primacy the regulator would need to consider the overall estimate against the overall objective and not just add together and weight its estimates of the cost of equity and debt."[7]

Similar to previous frameworks, the new rules also require that the AER have regard to the prevailing conditions in the market for funds in estimating the return on equity. The FIG considers that this is critical given the commercial significance of the allowed rate of return to investors and the need for regulated businesses to compete for access to capital with other Australian and offshore businesses.

The FIG considers that if implemented with an appropriate degree of rigour and transparency, these requirements should lead to greater consensus and consistency in allowed rate of return outcomes than has previously been the case.

At the end of the day, however, no additional amount of detailed analysis of rate of return parameters is likely to replace the need for sound judgment in meeting the allowed rate of return objective. Indeed, the FIG has repeatedly made this point to the AER, including during its WACC parameter review in 2009 and to the AEMC in 2011:

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[5] AEMC, Final determination, 29 November 2012, p 37.
[6] AEMC Final Rule Determination, 29 November 2012, p. 106.
[7] AEMC Rule Change, Final Position Paper, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012, 15 November 2012, page 49.

"The FIG believes that setting a regulated cost of capital must ultimately be guided by commercial and practical considerations, as this is the perspective that investors will take when making investment decisions… Failure to do so will result in much-needed capital for energy network investment being shifted to other investment opportunities."[8]

3.4 Lessons from the recent past

The new rules provide an important opportunity to produce better outcomes in meeting the allowed rate of return objective. From an investor perspective, however, we appear to have been in this position before and the results were less than satisfactory.

In developing the Guidelines, it is worth recalling briefly:

- The ineffectiveness of the previous approach and why this was the case
- The outcomes that approach produced
- The implications of those outcomes looking forward.

3.4.1 The ineffectiveness of the previous approach

From an investor perspective, the recent history shows that problems with the way the AER approached the task of setting the rate of return under the previous framework contributed significantly to the recent round of rule changes. In this regard, some important lessons can be drawn from the process taken in relation to the 2009 WACC Review.

The approach taken in the 2009 WACC Review is an example of an approach that placed greater primacy on the accuracy of the value attached to inputs rather than the reasonableness of the outputs produced by that process. In particular, that review - which coincided with the onset of the Global Financial Crisis (GFC) - was characterised by a highly detailed and forensic approach to assessing the cost of capital, and more importantly, seemed to lack consideration of the commercial impacts brought on by the GFC.[9]

The FIG recognises that to some extent, the AER may have felt compelled to take this approach given the level of prescription in the rules about various matters relating to the estimation of the appropriate rate of return. Nevertheless, the outcome of that process was a final decision contained in a comprehensive and lengthy document. The AER clearly believed it had met its obligations under the relevant laws and rules and the parameter values adopted would be the default parameter values in all cases where some discretion remained.

Subsequent events have shown that the confidence in the AER's 2009 WACC decision was rather misplaced. Rather than narrowing the debate on the various WACC parameters, the AER had instead widened it. More specifically:

- The decisions on the rate of return in future decisions were not made any more transparent or shorter as a result of the process of making a decision on WACC parameters. Indeed, if anything, their length and complexity increased
- The AER's decisions on the rate of return were subject to numerous merit reviews, the majority of which were either conceded by the AER or upheld against it. Indeed, at the time the FIG made its submission to the AEMC's rule change process, the AER's decisions on the rate of return had been overturned 69% of the time that a network

[8] FIG, op cit. 2009, page 1; Fig, op cit., 2011, page 27.
[9] FIG, op cit. 2009, pages 2, 20-21.

business sought review.[10] Typically, the reviews centred on the way in which the AER had exercised its discretion.

At the same time, sustained rises in electricity prices in a number of jurisdictions raised questions about the quality and effectiveness of network regulation.[11] This added pressure to review the rules around economic regulation in both the gas and electricity industries,[12] notwithstanding that there was little evidence that rising prices were a problem in the gas industry. Moreover, to the extent that electricity network costs were responsible for the price 'problem', this was isolated to the network sectors in certain States (i.e. electricity networks in NSW and Qld).[13]

The end result of these events was a proposal to revise the rules – initiated by the AER (in the first instance)- within 5 years of the life of the introduction of the previous set of rules, despite policy makers previously being confident that they would lead to better regulatory outcomes and greater regulatory certainty.[14]

Putting aside the merits of the changes that were made as a result, it is evident that if the rules have a life that is no longer than the typical regulatory review period, they simply cannot provide the stability, consistency and predictability in regulatory decision making required to encourage investment in long lived assets.

More importantly, however, the FIG maintains that the problems that the AER has encountered on rate of return issues can – at least in part - be traced back to the approach it chose to take, rather than fundamental problems with the rules *per se*. Those problems related to how the AER chose to exercise its discretion (as highlighted in the merit reviews) and justify its decisions. Given that the new rules provide the AER with even broader scope to exercise its discretion, the FIG considers that the AER's focus going forward will need to be on improving the quality and transparency of its decisions.

The Guidelines can assist in providing greater clarity and certainty around how the AER intends to achieve this.

3.4.2 The outcomes of recent decisions

The AER's most recent decisions have allowed substantially lower rates of return on equity. For example, the AER's most recent decisions on the Victorian gas businesses imply an equivalent real after-tax return on equity in the order of 5.3% to 5.7%.

These returns are inconsistent with encouraging investment in regulated energy network assets and would be unsustainable if replicated across the sector. More specifically, the returns are:

- Significantly below those used by Independent Experts (and valuers in their more direct role) in valuing the same assets[15]

[10] FIG, Submission to the AEMC Consultation Papers: rule change proposals relating to the economic regulation of electricity (ERC0134 and ERC0135) and gas (GRC0011) networks, 8 December 2011, Appendix A.
[11] Garnaut Climate Change Review Update 2012, Transforming the electricity sector, Update Paper 8.
[12] AER, Rule change proposal – Economic regulation of transmission and distribution network service providers, September 2011.
[13] The FIG provided considerable evidence to support these points in its submission to the AEMC. See FIG, op cit., 2011, pages 20-24; 54-57. This included work undertaken by Ernst & Young on the long term network cost performance. Ernst & Young, Victorian Domestic Electricity Prices: The contribution of network costs, September 2011. Ernst & Young, South Australian Domestic Electricity Prices: The contribution of network costs, December 2011.
[14] For example, see Australian Energy Market Commission, National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No.18 – Rule Determination, 16 November 2006
[15] For example, the implied required cost of equity in Grant Samuel's valuation of Hastings Diversified Utilities Trust and the DUET Group was 11.2% and 11.0% respectively.

- Below those used by brokers when advising clients the merits of investing in the same assets

- Significantly lower than the range of 6.0% to 7.2% that OFGEM has recently assessed to be appropriate for the electricity distribution businesses it regulates.[16] Part of the explanation for the difference in allowed returns on equity between AER and OFGEM relates to the treatment of the risk free rate and market risk premium despite the fact that risk free rates are lower in the UK and it is typically considered to have a lower market risk premium.

The allowed rate of return outcomes in AER's recent decisions are largely the result of an approach that applies the CAPM by setting the estimate of the risk free rate independently of the market risk premium (MRP). Specifically, the risk free rate is set by reference to observed spot rates in the market (using the yield on the 10 year Commonwealth Government bond as a proxy) – which were near historical lows at the time of the Victorian gas decisions - and an estimate of the MRP which is based primarily on a long term historical average premium earned by Australian equity investors. By construction, this approach combines fluctuations in interest rates in the former with a stable estimate in the latter, and will result in low allowed costs of equity at times that when 10 year government bond yields are low.

The AER has previously recognised that the actual MRP is likely to vary under different economic conditions and as a result, its approach is appropriate under relatively stable market conditions:

"... while theoretically the MRP could vary over time in line with different economic conditions the view of the AER and the JIA's advisers (Professor Officer and Dr Bishop) is that, unlike for the nominal risk free rate, there is no adequate method to automatically update the MRP at the time of each reset determination...

In relatively stable market conditions, the adoption of a value for the MRP (which then applies for multiple reset determinations) is unlikely to be a significant issue..."[17]

Indeed, the AER recognised in the 2009 WACC Review that *"...due to the global economic and financial crisis, relatively stable market conditions do not currently exist..."* and as a result, moved to increase the value of the MRP from 6% (as applied in previous decisions) to 6.5% at the time.

During the consultation process for the recent Victorian gas decisions, the Victorian gas businesses argued that risk premiums were not constant over time and that the AER's approach was resulting in downwardly biased estimates of the CAPM cost of equity as there was evidence that overall costs of equity were not falling in line with the decline in long term government bond yields.[18] A number of options were put forward to address this problem.

The AER did not accept the arguments advanced by the Victorian gas businesses.[19] Despite the considerable body of evidence that they presented,[20] the AER formed the view that the evidence was not sufficiently compelling to warrant a departure from the approach it has conventionally applied.

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[16] OFGEM, Strategy decision for the RIIO-ED1 electricity distribution price control, Financial Issues, Supplementary annex to RIIO-ED1 overview paper, 4 March 2013, page 15-16.
[17] Statement of Regulatory Intent, May 2009, page 44-45.
[18] Refer report by CEG, Internal consistency of risk free rate and MRP in the CAPM, Prepared for Envestra, SP Ausnet, Multinet and APA, March 2012
[19] For example, refer to AER, Access arrangement final decision – APA GasNet Australia (Operations) Pty Ltd 2013-17 Part 3:L Appendices, March 2013.
[20] This evidence includes analysis and evidence provided by CEG, NERA, SFG Consulting and Ernst & Young which were submitted to the AER by the Victorian gas businesses.

The FIG presumes that the AER is now committed to that approach, that is, a strict application of the CAPM, subject to the findings of the current legal action.[21]

3.4.3 The implications of recent decisions

One key practical implication of the AER's approach to setting the cost of equity such that it moves in line with the observed yields on 10 year Commonwealth Government bonds is that it has in all likelihood, locked into place material real increases in electricity and gas network prices at the point of the next regulatory decisions for these assets.

The AER's recent decision in respect of the Victorian gas network businesses in 2013 provides an example. In particular:

- In determining the rate of return, the AER has assumed that overall costs of equity have declined in line with observed falls in the long term Commonwealth government bond yield. It has done so by adopting a nominal risk free rate of between 3.1% and 3.5% for each of the businesses (which are significantly lower than the long term average rate of 5.8%[22]) without applying a corresponding adjustment to its estimate of the MRP.

- According to some macroeconomists, risk free rates are forecast to increase significantly over the next few years and return to long term average levels. For example, Deloitte Access Economics, who the AER relied on in its decisions, forecasts that nominal risk free rates will increase by 2.4 percentage points (or 78%) from current levels by 2016-17[23]

- If risk free rates increased by these amounts, it would imply that gas network prices would increase by somewhere between 9% and 19% at the start of the next regulatory period[24]

- However, this outcome assumes that risk free rates return to levels close to their long term average. If risk free rates increased above the long term average by the amount they are currently below it (i.e. by around 2.5 percentage points), then the increase in gas network charges would be in the order of 19% to 41% at the start of the next regulatory period

- These increases would occur before any other influences on prices came into effect.

Indeed, there is some evidence that this process of increasing global risk free rates may have already started and that it might occur quickly.[25]

The AER has chosen this path in an environment where energy prices are increasing more generally, and many expect wholesale gas prices to increase by 50% over the next few years and perhaps by much more by 2020.[26]

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[21] The FIG understands that APA GasNet is appealing the AER's decision on the cost of equity.

[22] Average based on period between January 1995 and 17 May 2013. Source: RBA.

[23] Forecast increase in 10-year bond rate from 3.1% in 2012-13 to 5.5% in 2016-17. Source: Deloitte Access Economics, Business Outlook – Australia still in cost cutting mode, March 2013.

[24] The range in the increase in prices depends on what happens to debt margins, which might be expected to fall with a return to more benign market conditions (such that the total cost of debt remains broadly at the same level). This would imply that the price increases toward the bottom end of the range are perhaps more likely. . Calculates are based on the average increase in Victorian gas network prices (weighted by size of the RAB as at the end of the previous regulatory period).

[25] See for example: The Weekend Australia, 'Bonds plunge puts focus on Fed', 1-2 June 2013; Australian Financial Review, 'The argument against a bond crash', 31 May 2013.

[26] Sydney Morning Herald, 'Big gas users warned of soaring price', 14 March 2013, page 30. These increases are broadly consistent with the increases assumed by ACIL Tasman in its work for AEMO, although the price increases are occurring sooner. See ACIL Tasman, Fuel cost projections: Natural gas and coal outlooks for AEMO modelling, December 2011. Australian Financial Review, 'Gas producers reject calls to reserve', 27 May 2013, page 6. Grattan Institute, 'Getting gas right: Australia's energy challenge', June 2013.

It is not clear how such an outcome could be considered to be in the long term interests of consumers. It increases rather than reduces price volatility for consumers and appears to be the opposite of what:

- Regulation is supposed to achieve
- Actually happens in markets (i.e. general market prices for goods and services, including those that are substitutes for gas, have not fallen with the fall in risk free rates, at least as the AER appears to believe they should).[27]

For investors in network assets, the AER's insistence on applying its approach has increased the volatility of returns. It directly contradicts the AER's position at the 2009 WACC review, where it noted that:

"The AER has considered the overall WACC outcome (and the overall cost of debt and overall cost of equity) of this final decision derived from the revised WACC parameters. In terms of the overall outcome, the AER emphasises the following points:

- *The AER maintains the view put in its explanatory statement that, while it is clear that current market conditions in debt markets are far from favourable, market based evidence from a number of sources strongly suggests that, rather than creating risks, the regulatory regime insulates energy network businesses from volatility…"*[28]

Moreover, this approach creates a significant risk that the AER, in an environment of rising energy prices (and wider discretion), will be under considerable pressure to respond by 'finding' other ways to mitigate the price increases it has effectively embedded.

This scenario strongly resembles what has occurred over the last few years, which led to significant rules changes. It also means investors are faced with the prospect of:

- Increased volatility of returns
- But with returns at the higher end of range (as the market may require) potentially truncated by subsequent regulatory decisions.

This is not a scenario that is conducive to investment.

3.5 Other key concerns raised by the Consultation Paper

3.5.1 The use of market data, other evidence and reasonableness checks

The AER has highlighted in its Consultation Paper that it intends to continue to use reasonableness checks on the overall rate of return.[29] The Consultation Paper goes on to note that:

"reasonableness checks may act to prompt us to re-examine the approach to estimating the return on equity, return on debt or gearing ratio."[30]

The FIG considers that reasonableness checks can be an important part of the process of ensuring that the estimate produced from the application of various models and estimation methods is consistent with the rates of returns required by investors in the commercial context. The FIG considers that to be truly useful, a thorough and genuine assessment of

[27] It is worth noting that elsewhere the AER elsewhere (see Section 3.3.2 below) considers the economic efficiency benefits of consistent regulatory practices. It is not clear precisely what it means, but this example appears to provide for economic inefficiency arising from the distortion in price signals.

[28] AER, Final Decision: Electricity transmission and distribution network service providers Review of the weighted average cost of capital (WACC) parameters, May 2009, page iii.

[29] Consultation Paper, page 22.

[30] Consultation Paper, page 26.

which reasonableness checks should be applied to test the adequacy of the overall rate of return needs to be conducted as part of the development of the AER's Guidelines. Failure to do so will render such checks arbitrary and meaningless.

The AER's recent decision on Envestra and Multinet Gas provide strong examples highlighting the flaws in the way the AER currently applies its reasonableness checks. In the Envestra decision, the AER's analysis demonstrated that the WACC allowed was at the low end of the range of broker WACC estimates but nevertheless deemed its result to be reasonable despite the limitations of broker reports.[31] In the case of Multinet Gas, the AER decided on a nominal vanilla WACC of 7.03% despite acknowledging that the evidence from broker WACC indicated a potential concern as they suggested the appropriate range was 7.38% to 10.02%.[32] In both cases, The AER's reasonableness test therefore effectively relied on cross-checks based on RAB multiples and other regulatory decisions (including its own). The FIG would argue that both of these approaches suffer from severe limitations and the degree of reliance placed on them ought to reflect this. Indeed, as Section 4.3 shows, the AER's own work highlights the shortcomings of a naïve focus on RAB multiples.

In contrast, the AER applied no weight to the views of Independent Experts which arguably have a higher empirical value as compared with broker reports.

Section 4.3.2 makes further comments in relation the AER's use of reasonableness checks, as part of the response to Question 5.1.

3.5.2 The exercise of regulatory practices

The Consultation Paper identifies some *"regulatory criteria"* the exercise of which the AER considers will facilitate achieving the NEO, NGO and the rate of return objective. However it is not clear from the Consultation Paper:

- Where they emanate from, as they do not appear to be set out in the broader Better Regulation material
- Why they are particularly relevant to estimating the rate of return, as they do not appear to be set out in the other guidelines that have been prepared
- How they relate to the NEO, NGO, RPP and the overall rate of return objective or the criteria the AER has developed that are subordinate to it
- The value they provide in light of the above.

While most of the regulatory criteria identified appear to be reasonable, two concern the FIG. More specifically:

- In respect of the *"desirability of consistent approaches to regulation across industry"*, it is not clear:
  - What the AER considers are the economic efficiency benefits of consistent approaches.[33] Consistent approaches will only deliver these benefits where they contribute to the relevant objectives. Indeed, consistent approaches could lead to

[31] AER, Access Arrangement Final Decision 2013-2017, Envestra, Part 2 – Attachments, March 2013, p. 152

[32] AER, Access Arrangement Final Decision, 2013-2018, Multinet Gas (DB No. 1) Pty Ltd, Multinet Gas (DB No. 2), Appendix B.7.2, page 64.

[33] It is not obvious what distortions between industries (or which industries) the AER is referring to when discussing inconsistent incentives. The FIG is unaware of the AER previously highlighting evidence of inconsistent incentives between regulated industries having a material economic impact, particularly in relation to rate of return. If the concern is price distortions from different approaches to regulation, then the AER's approach to the cost of capital in recent times has had a much larger impact. There are issues of far greater importance associated with the structure of tariffs, as the current debate about the network costs borne by customers with solar voltaic systems shows.

consistent outcomes that are economically inefficient and therefore should not be pursued for their own merit. Where consistent approaches contribute to the relevant objectives they will however lower the cost of applying regulation, which should provide benefits

- Whether consistency should be the first regulatory criterion in any case (i.e. is it more important than promoting incentives for efficiency?).

- In respect of ensuring *"that the net present value of revenues is sufficient to cover service providers' efficient expenditures (the 'NPV=0' condition)"*, it is not clear how this regulatory criterion sits in relation to the relevant objectives and rules. This regulatory criterion risks inverting the intent of the relevant objectives and rules by making them subservient to NPV=0 condition.

  The AER's obligation is to decide what the efficient costs of service provision are and then provide the business with an opportunity to recover them. The NPV=0 condition should not be used to constrain consideration of what are the efficient costs. The relevant objectives and rules simply do not establish this as a *"fundamental principle of economic regulation"* as the AER suggests and thus a requirement that must be met mathematically, albeit only in principle.[34] A regulatory practice such as this risks imposing "efficient" solutions, which is inconsistent with providing incentives for efficiency.

  Such a regulatory practice would be better expressed as ensuring that the regulated business has a reasonable opportunity to earn revenues to at least cover its efficient costs, which in the context described above, is an important attribute of regulation. This is one of the Revenue Pricing Principles set out in Section 7A of the NEL (with equivalent provisions in the NGL). But again it should not be seeking to impose the outcome, only provide a reasonable opportunity for it to occur.

  Finally, if the NPV=0 condition must be met, it is not clear that it is being applied consistently across all aspects of the rate of return estimation (and revenue estimation); or that, in practice, it can be applied in anything other than a theoretical sense.

The intent of these particular regulatory criteria is not obvious particularly when they are raised only in the context of the rate of return. They invite speculation that, in setting the rate of return, the AER will pursue consistency for its own sake and seek to impose an approach that limits the assessment of efficient costs by reference to the length of the regulatory period.

The latter seems to be an issue which the AER has had disproportionate focus on for some time, which is itself of some concern. Similar concerns are raised by the apparent ongoing focus on the value of imputation credits.

This approach risks inviting the perception that the AER's assessment of the rate of return will be based on a set of preconceived ideas and raises questions over the ability of the AER to make decisions that are consistent with its obligations. The FIG would also question the value of this approach given that the evidence on these matters is unlikely to ever be particularly definitive.

3.6 Incentives for investment and regulatory certainty

The FIG's key concern is that the AER appears to have overlooked:

[34] AER, Consultation paper: Rate of return guidelines, May 2013, page 27.

- The commercial significance of the allowed of rate of return to investors and the need for regulated businesses to compete for access to capital with other Australian and offshore infrastructure investment opportunities

- The consequences of setting a cost of capital that is insufficient to enable regulated businesses to attract capital that is required to fund investment and growth in the sector

- The consequences for investment in long lived assets of not providing sufficient stability, consistency and predictability in regulatory decision making.

The evidence outlined above in relation to recent decisions also suggests the AER has overlooked the importance of the investors' perspective. In addition, certain aspects of the Consultation Paper illustrate that the AER is not paying sufficient regard to the need to provide regulatory certainty. For example, none of the three key issues identified above are discussed in detail in the Consultation Paper.

3.6.1 The investment need

In its submission to the AER's 2009 WACC review[35], the FIG went to considerable lengths to outline the issues in respect of the demand for infrastructure investment both nationally and internationally, including in the energy network sector.

The submission noted that:

- There is a huge demand (and need) for infrastructure investment across the world, both in developing and developed economies (including Australia), and in the energy network sector. There is currently around $1.58 trillion invested in the superannuation system in Australia [36] and estimates are that this will grow to $7 trillion by 2028.[37] Typically, these investors might seek to invest 5-10% in infrastructure[38]

- While there is in principle a relatively large pool of capital potentially available to meet this investment need, particularly in Australia, there are a wide variety of investment opportunities available for that capital, and we still live in a more capital constrained world than has been the case pre-GFC.

In this context, it is important to note that infrastructure investors have many investment options available to them and Australian energy businesses will be at a competitive disadvantage relative to their overseas counterparts (as well as regulated businesses in other infrastructure sectors) if returns are insufficient. For example, RARE Infrastructure has previously noted that:

"As a fund manager investing globally, we have a choice to invest in Australian regulated networks or in other securities. Our investment universe includes over 200 listed securities with assets and operations in many developed and developing countries around the world."

"Higher allowed returns and lower variability of those returns will encourage us to direct more money into Australian regulated assets. Our company has a preference for investing into energy networks with stable regulation and predictable cash flows."[39]

These points have been reiterated on many occasions in recent times, including in the 2013 Federal Budget, by Infrastructure Australia[40], and by the Industry Super Network[41].

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[35] FIG, op cit., 2009, Appendix A.
[36] Australian Prudential Regulation Authority, Quarterly Superannuation Performance, March 2013
[37] Speech by Gordon Noble, ASFA to the Financial Services Symposium, 7 March 2013,
[38] Ernst & Young, Financing Australia's infrastructure needs – Superannuation investment in infrastructure, 2011
[39] Refer http://www.aemc.gov.au/Media/docs/RARE-Infrastructure-8146d316-f860-4be4-9f0b-902905293044-0.PDF

The FIG also highlighted in its submission to the AER's 2009 WACC Review the substantial costs of failing to invest in energy network infrastructure, by providing relevant examples. Grant King, Managing Director of Origin Energy, has recently found it necessary again to highlight the costs of failing to invest in energy infrastructure:[42]

"We have seen not that many, but extraordinary examples of the cost of unreliability, and the reason reliability is at (sic) top of our list of objectives as the cost of unreliability is so high."

There has been significant investment in energy networks in recent times, particularly in WA, NSW and Queensland, but soon similarly significant investment will be required in other states to meet the emerging challenges the sector faces. For example, the Productivity Commission expects investment in the NEM network of more than $40 billion by 2015 (relative to 2010).[43]

[40] Infrastructure Australia, Australia's Public Infrastructure – Part of the Answer to Removing the Infrastructure Deficit, October 2012
[41] Industry Super Network, Building Australia: Super investment initiative, June 2013
[42] Grant King, Managing Director Origin Energy, Speech to CEDA Energy Series – Power Prices, Regulation & Investment, 18 March 2013
[43] Productivity Commission, *Electricity Network Regulatory Frameworks*, October 2012, page 91

4. Responses to issues for consultation

4.1 The overall rate of return

This section of submission responds to selected questions raised by the AER in the Consultation Paper.

4.1.1 Observations

It is clear that one of the most important changes to the rate of return framework is the incorporation of the requirement for the allowed rate of return (defined as a nominal vanilla WACC) to satisfy the allowed rate of return objective, and for the underlying return on equity and return on debt to contribute to the achievement of that objective. The AER will be required to exercise well-reasoned judgment in deciding whether or not a particular estimate satisfies the allowed rate of return objective and this is to be informed by its assessment of the merits of the various methodologies, models, data and evidence examined as part of the estimation process.

Section 3 of the Consultation Paper indicates that one of the ways in which the AER intends to meet its obligations under the new rules is by continuing to apply reasonableness checks to the overall rate of return estimate. The AER notes that such checks should be used "*informatively*" and that their role is to act as "*...a prompt for us to re-examine our approach to estimating the returns on debt and equity, and the gearing ratio.*"[44]

The FIG agrees with the AER's general propositions but has strong concerns with the way in which reasonableness checks have been applied in the past. This was illustrated in our reference to the recent determination on Envestra as outlined in Section 3.3.2. We therefore disagree with the AER's statement that:

"*Notwithstanding this, these checks typically affirmed the reasonableness of our allowed rate of return.*"

Further detailed comments on the issues with the specific reasonableness checks that the AER has employed to date are provided at Section 4.3 of this submission.

The FIG wishes to reiterate the position that it has taken in many previous submissions, that the risks associated with under-investment due to the allowed rate of return being set below the true cost of capital are of higher order of importance than the risks associated with the converse.[45] This view is consistent with those expressed by the Productivity Commission in its review of the national access regime in 2001 and most recently by Professor George Yarrow:

"*Good regulatory systems tend to "aim off" a little: expected rate of return = cost of capital plus a little.*"[46]

We consider that these considerations should underpin and guide the AER in its selection of a point estimate of the allowed rate of return.

[44] Consultation Paper, page 22, 24.
[45] Financial Investor Group, Submission to the AER's 2009 WACC review
[46] Professor George Yarrow, Proposed Rule Changes: preliminary observations, Presentation Slides, p. 3, 9 May 2012.

4.1.2 Responses to issues for consultation

Question 3.2

What is the appropriate term for the return on equity? Do stakeholders support Lally's recommendation based on the present value principle that the appropriate term should be consistent with the regulatory period?

Term for the return on equity

The FIG is aware that this issue has been raised a number of times in the past and is therefore puzzled as to why the AER has chosen to revisit this issue.

The FIG notes that the ACCC previously adopted a 5 year tenor for its review of the 2004 access arrangement proposal for GasNet, but this was successfully appealed[47] by GasNet and subsequently reversed. Two reasons were advanced by the Australian Competition Tribunal to support this approach.

The first was consistency within the CAPM formula. This issue relates to the fact that the nominal risk free appears twice in the formula for the CAPM cost of equity. Therefore, any change in the nominal risk free rate would also create a corresponding change in the definition of the market risk premium ("MRP"), which is measured by reference to the risk free rate.

The Tribunal noted that whilst estimates have to be used in the absence of perfect information, it is necessary to preserve the underlying logic of the CAPM when applying the model:

"While it is no doubt true that the CAPM permits some flexibility in the choice of the inputs required by the model, it nevertheless requires that one remain true to the mathematical logic underlying the CAPM formula. In the present case, that requires a consistent use of the value of rf in both parts of the CAPM equation where it occurs so that the choice was either a five year bond rate or a ten year bond rate in both situations."[48]

On this basis, the Tribunal concluded that the ACCC "*erred in concluding that it was open to it to apply the CAPM in other than the conventional way ..."*[49]

On the question of the choice of a five or ten year term for the risk free rate, the Tribunal found that a ten year term was consistent with conventional use of the CAPM:

"In truth and reality, the use of different values for a risk free rate in the working out of the Rate of Return by the CAPM formula is neither true to the formula nor a conventional use of the CAPM. It is the use of another model based on the CAPM with adjustments made on a pragmatic basis to achieve an outcome which reflects an attempt to modify the model to one which operates by reference to the regulatory period of five years. The CAPM is not a model which is intended to operate in this way. The timescales are dictated by the relevant underlying facts in each case and for present purposes those include the life of the assets and the term of the investment.

The Tribunal is satisfied that the use by GasNet of a ten-year Commonwealth bond rate to determine a Rate of Return on equity ... was a correct use of the CAPM and was in accordance with the conventional use of a ten year bond rate by economists and regulators where the life of the assets and length of the investment approximated thirty years in the MRP calculation and the risk-free rate. The use of the CAPM with these inputs in the Tribunal's view, produces a Rate of Return on equity which s8.31 treats as one commensurate with the relevant market conditions and risk ..."[50]

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[47] Australian Competition Tribunal, Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6, 23 December 2003

[48] Ibid., para. 46.

[49] Ibid., para. 47.

[50] Ibid., para. 47 - 48.

We note that under the new rules, the CAPM is no longer prescribed as the model that the AER should apply. However, there are a number of models which employ a risk free rate of return plus a risk premium approach and the CAPM is likely to be one of a suite of models that the AER will consider in its estimation of the cost of equity. As such, we contend that the above considerations remain relevant.

Ultimately, the appropriate term for the return on equity should be guided by how the benchmark efficient entity, in respect of the provision of standard control services/ prescribed transmission services, finances itself. The assets held by regulated network service providers are long term assets. As such, they are best financed in a way that matches the profile of their service potential. The principle of matching the duration of liabilities with the duration of business assets is one which is well entrenched in sound financial management.

The FIG considers that the appropriate term for the return on equity should be consistent with the life of the underlying assets.

Present value principle

The FIG considers that this question detracts from the real issue which is why it is at all necessary to invoke the present value principle to achieve the NEO, NGO and overall rate of return objective.

As outlined in Section 3.3.1 of this submission, we see no basis for including the present value principle as a required regulatory practice. The present value principle is not referenced in the allowed rate of return objective nor in the NGO and NEO, and in our view, the AER has not demonstrated how it contributes to any of these objectives.

We also question whether there is any link between the present value principle and the Revenue Pricing Principles ("RPP") contained in the NEL and NGL. In designing the new rate of return framework, the AEMC was clear that the NGO, NEO and RPP should guide the interpretation of the allowed rate of return where there was uncertainty:

"The Commission explicitly recognised in the draft rule determination the potential tension between flexibility and certainty in the rate of return framework. Resolving this tension must always be guided by what is most likely to achieve the NEO, the NGO and the RPP."[51]

We note that one of the RPPs relates to the need for the service provider to be provided with the opportunity to recover "at least" the efficient costs the service provider incurs in the provision of regulated services.

Question 3.3

What is the appropriate term for the return on debt? Do stakeholders agree with the view that a specific term is not required, if we apply an approach that is similar to the ERA's 'bond-yield approach'? Is there a case for the same term for the return on equity and return on debt?

The FIG considers that the appropriate term for the return on debt should reflect an efficient financing structure for the benchmark efficient entity, in respect of the provision of standard control services/ prescribed transmission services, with similar risks to the service provider in question. As discussed elsewhere in this submission, it is efficient for businesses with long lived assets to seek to finance its operations with long term debt in order to manage their exposure to refinancing risk. It can be observed that debt issuances in the period since the GFC may be of shorter term but this reflects market conditions characterised by limited access to long term debt markets.

[51] AEMC, Final Determination, page 55.

The QTC's submission in response to the AER's previous Issues Paper highlighted this as follows:

"Regulated utilities have displayed a preference to refinance maturing debts with longer term (eg, ten year) debt. This is consistent with keeping exposure to refinancing risk at a relatively low level when relatively high debt levels are used to fund assets with very long economic lives.

The issuance of mostly shorter-term debt between 2008 and 2010 was largely due to market conditions and a general reluctance by lenders to provide new debt finance for tenors longer than five years."[52]

4.2 Benchmark firm and compensation for risk

4.2.1 Observations

The concept of an efficient benchmark entity is an important one in the context of the new rules. For the NGO and NEO to be achieved, the rules require that the allowed rate of return objective ensure that the service provider be compensated for its efficient financing costs. These efficient financing costs are to be determined by reference to a benchmark efficient entity, in respect of the provision of standard control services/ prescribed transmission services, with a similar degree of risk as that which applies to the service provider in question.

The FIG notes that the AER has commissioned advice from Frontier Economics, Professor McKenzie and Associate Professor Partington to address the question of the risks that should be taken into account in establishing a rate of return that meets the allowed rate of return objective under the rules.

The FIG supports the need for this analysis to be undertaken, noting in particular that any appraisal of risk must recognise the significantly different risks faced by gas transmission and distribution pipelines as compared with electricity transmission and distribution networks. This point was made in the submission by the Australian Pipeline Industry Association's submission to the AER's Issues Paper on the Rate of Return.[53]

The FIG is of the view that the Guidelines should contain sufficient discussion around the process for establishing the identity of the benchmark efficient entity is required. The AER's Consultation Paper appears to be silent on this matter and the draft report from Frontier Economics which the AER commissioned does not appear to this address this matter.[54]

In the FIG's view, the definition of the allowed rate of return objective in the rules makes it clear that the process must proceed as follows:

i) Identify the risks (both systematic and non-systematic) of the relevant service provider

ii) Identify a benchmark efficient entity, in respect of the provision of standard control services/ prescribed transmission services, with a similar degree of risk to the service provider

iii) Estimate the efficient financing costs of the benchmark efficient entity, as defined above

[52] QTC, Submission to AER's Rate of Return Guidelines Issues Paper, 15 February 2013, page 6.
[53] APIA, Response to Issues Paper: The Australian Energy Regulator's development of Rate of Return Guidelines, 20 February 2013, Schedule 3.
[54] Frontier Economics, Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia, A Discussion Paper prepared for the AER, June 2013, Draft

iv) Estimate the efficient financing costs for the relevant service provider relative to the benchmark efficient entity, having regard to the degree of similarity of risks.[55]

It is apparent that a "one size fits all" approach cannot be applied and that this process must be repeated for each service provider whose rate of return is being determined by the AER. This much is evident from the following AEMC statements:

"the objective is focussed on the rate of return required by the benchmark efficient service provider, with similar risks as the service provider the subject of discussion"[56]

"the [allowable rate of return objective] incorporates the concept of a benchmark efficient service provider, which means that the regulator can conclude that the risk characteristics of the benchmark efficient service provider are not the same for all service providers across the electricity transmission, electricity distribution and gas /or within those sectors"[57]

4.2.2 Responses to issues for consultation

Question 4.1

Set out the risk factors that you consider should be compensated through the rate of return. How can we assess whether different companies are exposed to materially different degrees of these risks?

Risks to be compensated for in the rate of return

Under the new rules, the risks faced by the service provider are relevant for determining the efficient financing costs of the benchmark efficient service provider, in respect of the provision of standard control services/ prescribed transmission services. These risks may be more market-related or specific to the service provider.

The FIG observes that market practitioners applying the CAPM often do not apply a distinction between these risks as fine as that which the AER assumes exist and applies in estimating the risk-adjusted rate of return. This is largely because practitioners recognise that whilst there is a distinction in theory, in practice, some risks have both systematic and unsystematic elements. Furthermore, investors may not hold investment portfolios which are as diversified as theory predicts.

The FIG is aware that the ENA's submission to the AER's Consultation Paper will provide a more detailed response to this question.

Materiality

The AER has raised the issue of materiality in respect of the benchmark efficient entity with *"a similar degree of risk as that which applies to the [service provider] in the respect of the provision of [regulated services]."*[58] The AER suggests that the use of the word 'similar' in the rules (rather than the 'same') implies that only material differences in these risks should result in different rates of return and asks how it can assess this issue.

As a general rule, the FIG considers that materiality might be an issue that is better applied consistently across all aspects of a revenue decision rather than specifically to one aspect of setting the rate of return. The rules would, however, appear to require the latter approach.

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[55] This last step is required to ensure that the rate of return for the service provider is "commensurate" with the efficient financing costs of the benchmark efficient entity, as required under the new rules.
[56] AEMC Final Rule Determination, page iii
[57] AEMC Final Rule Determination, page 67
[58] Sections 6.5.2(c) and 6A.5.2(c) of the NER and Section 87(2) of the NGR

The FIG suggests that, in determining materiality in the context of the rate of return and differences in risk exposure, the AER should be guided by what investors typically judge as being material in the context of transactions for the underlying assets.[59] This is because if material differences in risk are not allowed for, it will inevitably influence the incentive to invest, and produce outcomes that are inconsistent with the long term interests of customers In other words, the AER should guided by the instructions that investors typically provide to their due diligence advisers when assessing an investment opportunity.

In respect of materiality for items that affect revenue, the threshold is typically 0.5%-1.0% of total revenue.[60]

This means for a 'typical' regulated business (we have used the Victorian gas businesses as a guide), based on the threshold above, an increase in the WACC of 7-13 basis points is material.

Question 4.3

Do you agree that the AER should seek to utilise the smallest number of benchmarks that capture materially different degrees of risk? How do we utilise different benchmarks while retaining the objectives of incentive-based regulation?

The allowed rate of return objective as described in the rules contemplates that different benchmark efficient entities may be appropriate for different service providers. It may be that a benchmark efficient entity for one service provider is also appropriate for another service provider given the similarities in their risk profile. However, this will not be known until the benchmark efficient entity is defined.

The FIG therefore considers that the AER should use as many number of benchmark efficient entities as is required to satisfy its obligations under the rules. The FIG does not consider that this approach would detract from the objectives of incentive-based regulation.

4.3 Return on equity

4.3.1 Observations

Under the new framework:

- The allowed rate of return is defined as weighted average of the return on equity and the return on debt and is to be expressed a nominal vanilla basis
- In estimating the allowed rate of return, regard must be had to, amongst other things, relevant estimation methods, financial models, market data and other evidence
- The rate of return on equity must be estimated such that it contributes to the achievement of the allowed rate of return objective
- In estimating the rate of return on equity, regard must be had to prevailing conditions in the market for funds.

The Consultation Paper focuses heavily on issues related to the choice of methodologies for estimating the return on equity, and how information from different sources can be combined

[59] The requirements and guidance available in Australian Accounting Standards, AUASB Standards and AUASB Guidance Statements usually inform these judgments.

[60] As this threshold represents an aggregate materiality threshold, due diligence advisers are also typically instructed to identify individual matters or items that could have a material impact in aggregate. Investors therefore instruct their due diligence advisers to identify individual items in a range of 10% to 25% of the aggregate materiality threshold

to arrive at a point estimate of the return on equity. No reference is made to how the AER intends to address the requirement to have regard to prevailing conditions in the market for funds in estimating the return on equity.

The FIG considers that this is a highly important objective given the commercial significance of the allowed rate of return to investors and the need for regulated businesses to compete for access to capital with other Australian and offshore businesses. Ensuring that the allowed return on equity is sufficient to enable businesses to attract capital, particularly under current market conditions, is critical.

As our response to Question 5.1 shows, the way the AER is estimating the return on equity in recent decisions has resulted in allowed real after-tax returns on equity which are below those recently assessed to be appropriate for UK electricity distribution businesses. The AER's insistence on applying historically low spot risk free rates to estimate the current return on equity, without a corresponding adjustment to the MRP, is contributing to this gap.

The FIG considers that there is ample evidence to support the adoption of a longer term perspective to estimating the return on equity in the current climate. UK regulators have considered such an approach reasonable and IPART has in fact exercised its judgment to do so in its recent decision on regulated retail tariffs in NSW. The FIG does not consider that there are any constraints under the new rate of return framework in the NER and NGR which would prevent the AER from adopting a similar approach.

4.3.2 Responses to issues for consultation

Question 5.1

Which of the four broad approaches to combining information to determine a return on equity is preferred and why? Are there additional broad approaches that we should consider?

The AER has identified four broad approaches to combining relevant information on the return on equity to arrive at a point estimate of the return on equity:

1. Use one model
2. Use one primary model with reasonableness checks
3. Use several primary models with quantitative but non-complicated fixed weighting
4. Use multiple models and other information

Consistent with our understanding of the intent of the new framework, the FIG considers that there would be merit in combining relevant information from several sources in forming a view on the appropriate rate of return on equity. We note that it was the AEMC's view that the best estimate of the rate of return could only be achieved through consideration of a broad range of methodologies, data and evidence:

"*The Commission considered that requiring the regulator to have regard to relevant information on estimation methods, financial models, market data and other evidence, and allowing the regulator more capacity to achieve the overall objective, combined with a strengthened emphasis on achieving this objective, is more likely to achieve the NEO and the NGO than the current approaches.*"[61]

On this basis, all except for option 1 above are acceptable. Whether or not additional information is given weight to as primary information / models or as reasonableness checks will depend upon the character and nature of that information, but in any event, the FIG

[61] AEMC, Final Rule Determination, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012, National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012page 49

would support an approach which considers multiple models as, if applied appropriately, this is likely to produce a more informed estimate of the rate of return despite the limitations that may exist with individual models, as compared with a single model approach. On this basis, the FIG would see the use of multiple models as beneficial but having fixed weightings being applied to their relevance and use would appear to undermine the intention of the flexibility and discretion being granted to the AER to produce a better decision. It is clear that such an approach will be intrinsically challenging and will require the use of regulatory judgment and discretion throughout the decision making process. We consider this to be an essential part of regulatory decision-making which the AER should ensure is conducted logically and transparently.

We understand that the ENA's submission will provide more detailed comments around the merits of each of options 2 to 4 - with a clear preference for Option 4 – along with a discussion on alternative models which should be considered and their respective merits.

The FIG would also urge the AER to maintain an open mind in its consideration of the range of methodologies, models, data and evidence to be considered under the new rules. Whilst it is acknowledged that market practitioners have commonly applied a CAPM approach to estimating the return on equity, they have not done so mechanistically and it is common for some form of adjustment to be made to CAPM inputs or the CAPM estimate. The AER should guard against prematurely dismissing other alternative models and methodologies on this basis. The CAPM may be widely applied but it is certainly not without its limitations from both a theoretical and empirical perspective. In particular, the recent turmoil in financial markets has highlighted that "*routine applications of the CAPM can now generate implausibly low estimates of the cost of equity*".[62] Under such circumstances, and given the importance of the rate of return to investors, the FIG considers that a prudent and responsible approach would be to consider other models for estimating the required rate of return.

The FIG observes that some of the early results from the work undertaken by McKenzie and Partington appears to provide what could be regarded as a somewhat biased preference for the CAPM.[63] We do not support such an approach and consider that it would be contrary to what is required under the new rules.

For the purpose of providing a response to question 5.1, the FIG wishes to comment specifically on the types of evidence that the AER has to date applied as reasonableness checks. In the FIG's view, reasonableness checks should be used to provide confidence that the rate of return decision will achieve the allowed rate of return objective. When applied, appropriately, they can be quite a powerful tool to test if numbers produced from theoretical models - all of which are imperfect to varying degrees – are consistent with observed market outcomes.

An important part of this process, therefore, is the choice of the market observations or evidence that perform this role. The FIG would argue that the market observations and other evidence or opinion, whether it be applied to determining individual input parameters in the various models or to the overall market-based sense check of the final rate of return outcome, are a critical factor, if not the most important factor, in ensuring the NEO and NGO are properly achieved. As noted in Section 3, the FIG has some concerns about the usefulness of the checks that the AER has applied to date way. These are outlined below.

RAB multiples

The FIG contends that far too much weight is currently given to the use of RAB multiples from sales of regulated assets given the limitations of this approach. The Consultation Paper

[62] Myers, S.C. Estimating the Cost of Equity: Introduction and Overview, 17 February 2013, Attachment to APIA submission to the AER's Issues Paper on the development of Rate of Return Guidelines.
[63] McKenzie, M and G. Partington, on behalf of the Securities Industry Research Centre of Asia-Pacifc (SIRCA) Limited, Report to the AER: Risk, Asset Pricing Models and WACC, June 2013.

(and the AER's recent decisions) rightly acknowledges that RAB multiples from transactions can reflect a wide range of factors and that it is not possible to identify which factors were influential in the transaction. In light of this, it is not possible to infer that RAB multiples above 1.0 are indicative of the market's view that rates of returns allowed by the AER are adequate.[64]

Investors have gone to some lengths to make these points before, as it became more common for regulators to rely on this type of analysis for a time preceding the Global Financial Crisis.[65] In particular, it can be observed that the argument was raised as early as 1998 by the Victorian Essential Services Commission (ESC) in relation to its review of the gas access arrangements in Victoria, and then again in 2003. The following extract from an ESC paper highlights the basis for the ESC' argument:

"...a firm which is regulated so as to earn no monopoly rents would have a q [Tobin's q, discussed below] close to one. A monopolist, however, who can successfully bar entry and is not adequately regulated will earn monopoly rents in excess of ordinary returns on the employed capital. The market will capitalise these rents, and the market value of the firm will exceed the replacement cost of its capital stock, that is q will persist above one (Lindenberg and Ross, 1981, p.2).

It can be argued that in a competitive market, if a supplier charges a price above minimum efficient cost of supply, then new entrants will be attracted into the market by the abnormal profits that are available; as a result, market prices for outputs, and the market value of business enterprises supplying those outputs will tend towards cost. ... The above propositions are consistent with the theory of the relationship between the market value of assets and their replacement cost developed by the economist James Tobin. The ratio of the market value of the company's debt and equity to the current replacement cost of its assets is known in the finance literature as Tobin's q. ... Tobin argued that when q is greater than one (that is, when capital equipment is worth more than it cost to replace), firms have an incentive to invest, and that they will stop investing when q is less than one (when equipment is worth less than its replacement cost). ... On this basis, it is accepted, in principle, that the use of ODRC asset values and a market based estimate of the WACC is intended to mimic the outcomes of a competitive market."[66]

The FIG observes that the ESC's arguments rest on the presumption that an overly generous regulatory regime is the sole reason why regulated businesses are purchased at multiples of RAB exceeding 1. Importantly:

- No compelling evidence was offered by the ESC (nor by any regulator who has used the argument since) to support the credibility of this argument
- No mention has been made of the fact that Q=1 describes a condition which can be expected only to prevail in a competitive market in long run equilibrium.

Whilst there is evidence of a relationship between the market value of companies and the replacement cost of their assets[67], there are also a wide range of reasons (ignoring measurement problems[68]) why Q can exceed one, with the most plausible reasons being the ability of the purchaser to extract greater value from the business through factors such as synergies, financial strategies, tax strategies and management expertise. Indeed, the Victorian gas businesses have previously submitted that:

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[64] The same issue applies to the use of trading multiples as reasonableness checks.
[65] FIG, op cit., 2009.
[66] Office of the Regulator General, Weighted Average Cost of Capital for Revenue Determination: Gas Distribution, Staff Paper No. 1, May 1998, p.5.
[67] Smithers, Andrew & Wright, Stephen, Valuing Wall Street: Protecting Wealth in Turbulent Markets, 2000, McGraw-Hill.
[68] There are some significant issues involved in measuring the replacement cost value of assets (including DORC) relating to choice of optimisation methods, choice of replacement costs and choice of depreciation methods. Furthermore, DORC ignores the value of intangible assets. Lindenberg and Ross (1981) acknowledge the measurement difficulties and note that they can cause q to be biased upwards. For this reason, DORC has been described as being unauditable since different valuers are likely to come up with different DORC values.

"...a sale price in excess of the RAB does not inevitably establish that the regulatory rate of return exceeds that required by investors. Rather, sales of regulated assets at a premium to the RAB could reflect a myriad of factors, including, but not limited to:

a. *The acquirer's expectation of potential future growth in earnings from the operation of the regulated assets, whether because of an increase in demand for regulated services, howsoever arising, or because of an expectation that regulation will be relaxed;*

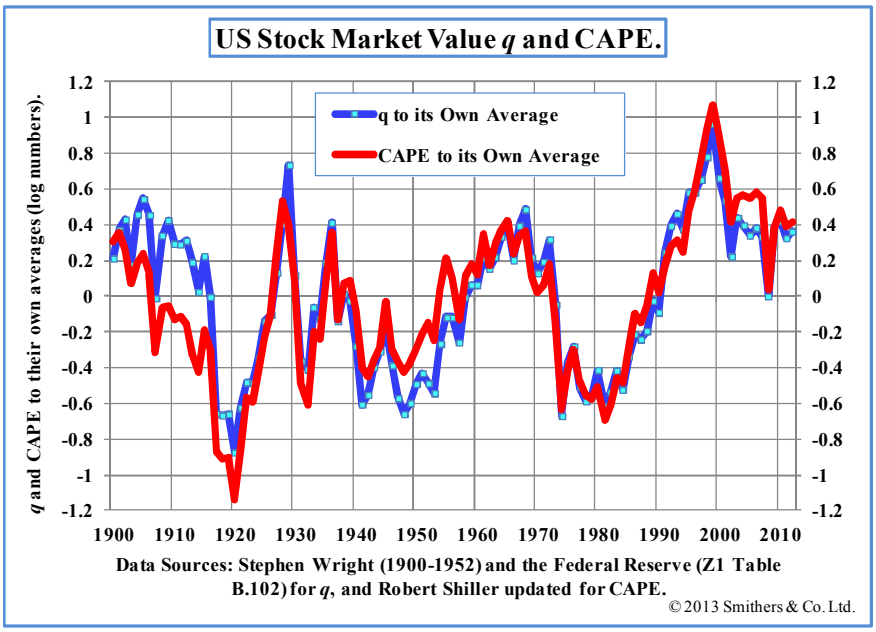
b. *The acquirer's perception that acquiring the asset would confer certain intangible or strategic benefits of value to the acquirer. This could be the case if, for instance, the purchase of a regulated asset granted a foreign investor entry to a market that they perceive to be of strategic importance;*

c. *The inclusion of certain non-regulated assets that are of value to the acquirer in the sale;*

d. *The acquirer's expectation that they could exploit synergies between their existing business and the regulated asset that lead to increased revenues of reduced costs; or*

e. *The possibility that certain efficiencies might be available to the acquirer that are not available to an efficient benchmark service provider."*[69]

As the FIG has previously noted in its submission to the AER's 2009 WACC Review, the Q ratio is highly variable over time and over substantial periods of time. An updated chart from Smithers & Co is shown below. On this basis, we would argue that it is highly inappropriate to view this statistic at a point in time.



In order to rely on this concept to conduct reasonableness checks the AER would need to explain why it thinks the valuation of regulated businesses should behave so differently to those that are not subject to its regulation.

It is clear that data on RAB multiples should only be used with considerable care. In the FIG's experience RAB multiples are typically used to assess relative rather than absolute value. In other words, they are not used to determine what an investor might pay for a regulated asset, but they may be used to assess how attractive an investment in one regulated asset might be relative to another (e.g. are there reasons why an investor might be prepared to pay a higher multiple for one asset over another, and is the proposed increment in the multiple reasonable).

[69] SFG, The required return on equity: Response to AER Victorian Gas Draft Decisions, Report for APA Gasnet, Envestra, Multinet and SP Ausnet, 7 November 2012, page 47.

If the AER does not find any of the above persuasive, there is more practical evidence that illustrates why RAB multiples should be used with considerable care. The most obvious can in fact be drawn from the AER's own work.

Specifically:

- Since 1996, the Office of the Regulatory General and subsequently the ESCV and the AER have collected data and reported on the performance of the Victorian electricity distribution businesses[70]
- With the exception of various gas network assets that were already in private hands, the Victorian electricity distribution businesses have the longest history of private ownership
- Those performance reports show that over that period these businesses have on average earned returns 2.2 percentage points higher than the allowed rate of return
- This equates to average outperformance of about 27% over 15 years.

It is also worth noting that this outperformance has not come at the expense of customers. Indeed, as referred to in Section 3.2.1, it has occurred despite significant real reductions in network costs (i.e. considerable benefits being passed back to customers in the form of lower prices).

The FIG is also aware of analysis that has been undertaken which would suggest that this outperformance is not unique to the privately owned Victorian electricity distributors. For example, the period following the implementation of incentive regulation in the UK electricity distribution sector in 1990 led to a successful period of reducing costs, prices and energy losses while maintaining the quality of service.[71]

Given the level of sustained outperformance that has been achieved in Victoria it might be reasonable for investors to expect that a similar some level of outperformance might be sustainable in the future.[72] In the above example, the outperformance would roughly equate to a multiple of 1.27.

This may also serve to explain why some government owned businesses have sold at privatisation at a multiple in excess of this figure (i.e. that the Government owned businesses have been underperforming relative to regulated benchmarks and have investors have assumed that they may get to keep some of difference for a period of time, provided they can improve performance). Again, the FIG is also aware of analysis that has been undertaken which would suggest that a number of government owned network businesses have substantially underperformed relative to regulated benchmarks.[73]

The FIG would suggest that the aforementioned figure should be treated with considerable caution for the all reasons described in this section, but it does serve to highlight the limitations of relying on RAB multiples.

Comparison with other regulatory decisions

The FIG considers that there is limited value in making comparisons with the regulatory decisions of other Australian regulators, including the AER, as the approach is inherently

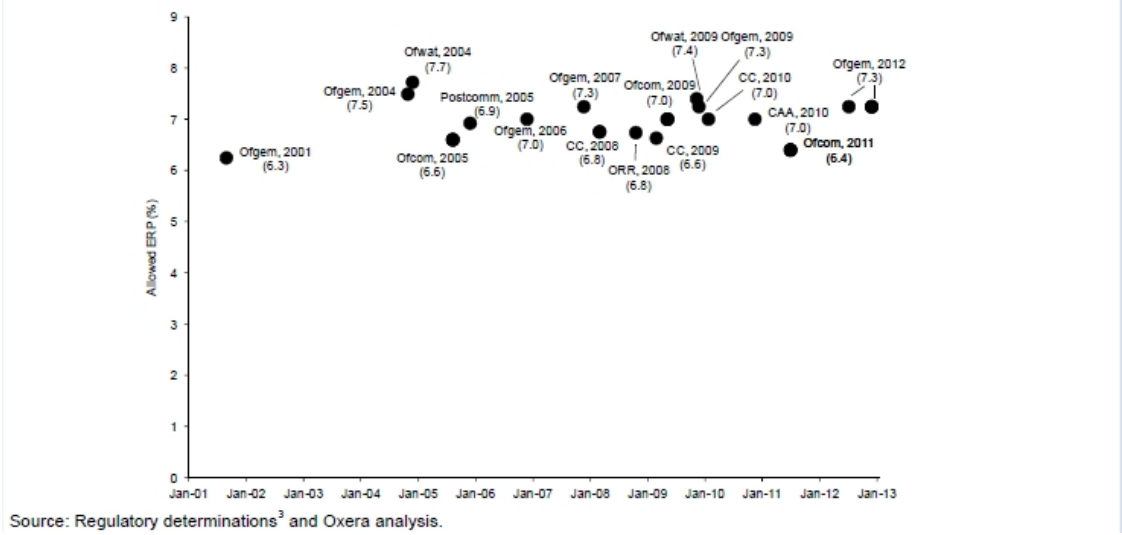
[70] Electricity Distribution Businesses Comparative Performance Reports
[71] Jamasb, T and Pollitt, M, Incentive Regulation of Electricity Distribution Networks: Lessons of Experience from Britain, June 2007
[72] This presumes of course that the regulatory regime will not change to make it harder either to generate outperformance or retain it.
[73] The FIG provided considerable evidence to support these points in its submission to the AEMC. See FIG, op cit., 2011, pages 20-24; 54-57.

circular. The AER is responsible for regulating a large number of businesses and it is clear from the decisions of regulators such as the ESC, the ERA, the QCA and IPART, that these State-based regulators generally take the lead from the AER's decisions. In our view, this test therefore cannot inform the AER on whether its decision is reasonable. It merely reveals that there is consistency in regulatory decisions, but whether the decisions were consistently right or consistently in error is the critical issue.

If comparisons are to be made with the decisions of other regulators, it may be more informative to make comparisons with the decisions of overseas regulators. For example, the FIG has noted that the AER's recent decisions on the Victorian gas businesses only imply an equivalent real after-tax return on equity in the order of 5.3% to 5.7%. This is significantly lower than the range of 6.0% to 7.2% that OFGEM has recently assessed to be appropriate for the electricity distribution businesses it regulates.[74]

Part of the explanation for the difference in allowed returns on equity between the AER and OFGEM relates to the treatment of the risk free rate and the MRP. Recent analysis by OXERA on UK regulatory returns indicates that regulators have preferred to keep the overall equity market rate of return (defined as the real risk free rate plus the market risk premium) relatively constant over time, despite the observed recent decline in index-linked government bond yields.[75]

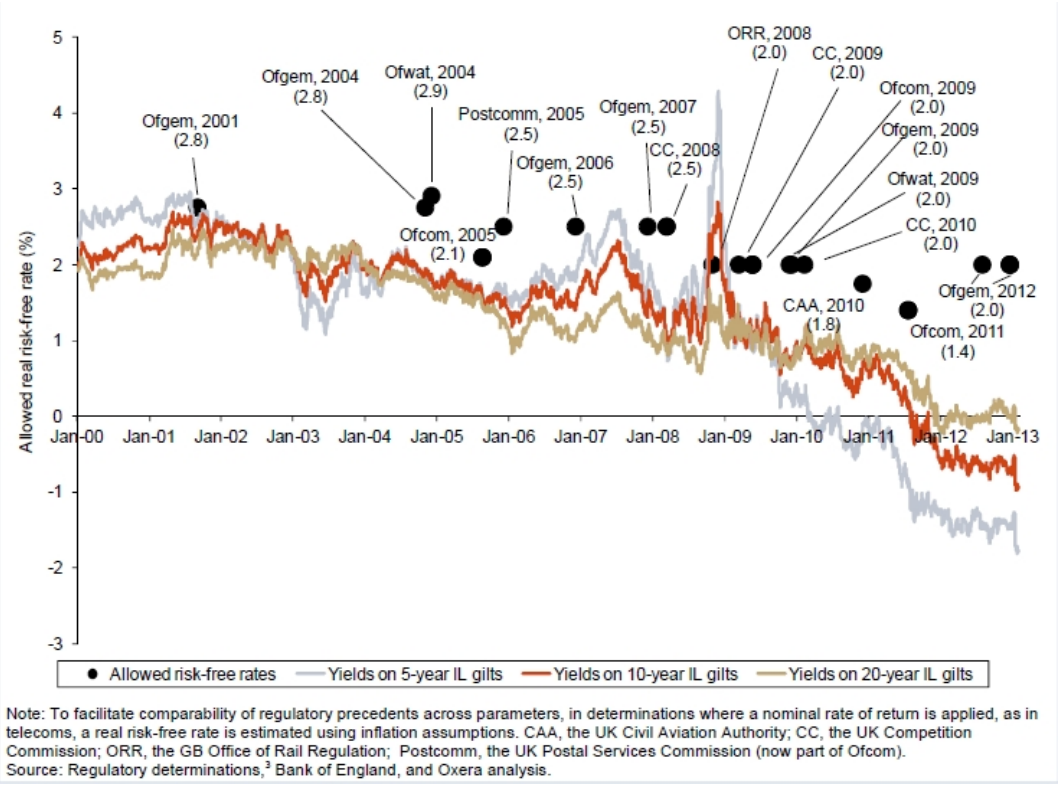
Figure 1: UK Equity market return implied by UK regulatory determinations



Source: Regulatory determinations[3] and Oxera analysis.

[74] OFGEM, Strategy decision for the RIIO-ED1 electricity distribution price control, Financial Issues, Supplementary annex to RIIO-ED1 overview paper, 4 March 2013, page 15-16.
[75] OXERA, Agenda, What WACC for a Crisis?, February 2013.

Figure 2: Real risk free rate assessed in UK determinations



Note: To facilitate comparability of regulatory precedents across parameters, in determinations where a nominal rate of return is applied, as in telecoms, a real risk-free rate is estimated using inflation assumptions. CAA, the UK Civil Aviation Authority; CC, the UK Competition Commission; ORR, the GB Office of Rail Regulation; Postcomm, the UK Postal Services Commission (now part of Ofcom).
Source: Regulatory determinations,[3] Bank of England, and Oxera analysis.

OXERA observe that this potentially reflects a view that "*the directly observable decrease in government bond yields has been broadly offset by an increase in the observable ERP.*"[76] Importantly, they note that:

"Capital market volatility over the last five years has increased the uncertainty around current estimates, and also forecasts, of the WACC parameters over the duration of the typical regulatory control period. Consequently, regulators have had to exercise a far greater degree of judgment when determining the risk-free rate and the ERP.

Arguably, given the long-term investment horizon of the typical regulated entity, UK regulators have been prudent in not translating the significant reduction in government bond yields into an equivalent reduction in allowed returns. With the ERP not being directly observable, it has perhaps become more important since the financial crisis to check that the combination of the risk-free rate and the ERP is consistent with long-run overall equity market returns."[77]

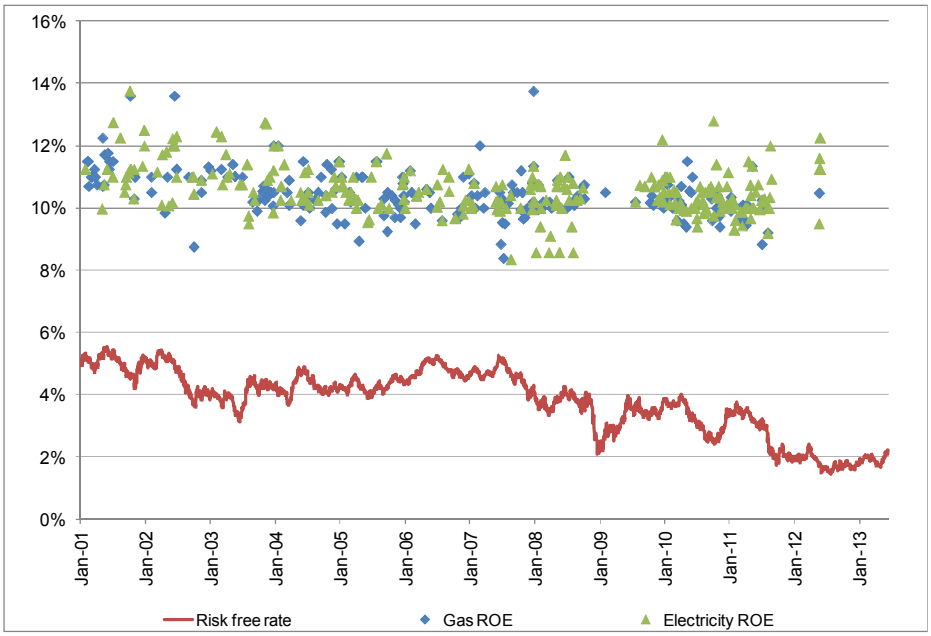
"If regulatory returns had set lower allowed returns on the basis of lower yields, regulated prices and returns would have been significantly lower, which would have provided weaker incentives for investment. In this sense, regulators have behaved in a largely neutral and independent manner relative to the wider policy context. This may reflect a general assumption by regulators that, in situations of uncertainty, it is preferable to err on the side of caution in order to mitigate potential consequences of underinvestment."[78]

As we discuss below, the approach of UK regulators is consistent with how independent experts have modified their approach to estimating the return on equity in an environment of historically low long term bond yields.

This approach of maintaining a relatively constant overall equity market rate of return over time, despite the observed recent decline in index-linked government bond yields, has also been evident in the US.

[76] OXERA, Agenda, What WACC for a Crisis?, February 2013, page 5.
[77] OXERA, Ibid, page 5
[78] OXERA, Ibid, page 5

Figure 3: Allowed returns on equity versus risk free rate assessed in US regulatory determinations (nominal)



Source: Public Utilities Fortnightly, EY analysis

WACC estimates from broker reports and independent expert reports

The FIG notes that recent AER decisions appear to give more weight to evidence from broker reports as compared to discount rates estimated by independent experts. This is difficult to comprehend given that there are serious limitations with respect to the use of broker WACC estimates all of which are well documented and which the Consultation Paper has acknowledged.[79]

Furthermore, and as observed by the Australian Pipeline Industry Association (APIA), broker reports are generally written to assist clients with managing or adjusting the holding of stocks in their investment portfolio (i.e. asset allocation). As such, their focus is less on the absolute value of a stock and more on the relative value of stocks.[80]

As highlighted in a report prepared by Ernst & Young for the Victorian gas businesses, information from independent expert reports are not affected by similar problems:

"The cost of equity provided in independent expert reports is the evidence of expert capital market practitioners acting independently in accordance with defined standards of independence, and based on documented and explicitly justified analysis."[81]

As the FIG outlined in its 2009 submission to the AER's WACC parameter there are in fact good reasons for regulators to be more conservative than independent expert valuers (and for that matter brokers). It stated:

"The FIG believes there are good reasons why the AER ought to be more conservative than independent expert valuers. Most importantly, the latter are attempting to assess value at a point in time, whereas regulators are attempting to create an environment for the provision of services which is consistent with the long term interests of consumers."[82]

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[79] The issues with recommendations in broker reports are well documented. For example, refer Bruce, B, "Stock Analysts: Experts on Whose Behalf?, Editorial Commentary, The Journal of Psychology and Financial Markets, 2002, Vol. 3, No. 4, 198-201.

[80] APIA submission to AER's Issues Paper, page 35

[81] Ernst & Young, Market Evidence on the Cost of Equity, Victorian Gas Access Arrangement 2013-2017, 8 November 2012, para. 50

[82] FIG. op cit., 2009, page 21.

In this context the fact the AER could also be producing outcomes that are more volatile than independent experts or brokers reflects the extent to which it is going beyond commercial practice.

The FIG therefore considers that there is a much stronger case for the AER to include consideration of the cost of capital methodologies and estimates from independent expert reports, as compared with broker reports, as part of its reasonableness checks. In this context, we note that the AER's recent decisions on the Victorian gas businesses adopted quite a different approach to that of independent experts in assessing the appropriate rate of return on equity, as highlighted in the Ernst & Young report.

Specifically, the overall equity market rate of return (defined as the sum of the risk free rate plus the market risk premium) implied in the 17 independent expert reports examined by Ernst & Young in 2012 was on average 1.7 percentage points higher than the market cost of equity of 9.0% implied in the AER's draft decisions on the Victorian gas businesses.[83]

Ernst & Young explained this result by observing a range of differences between the market cost of equity estimated using the AER's approach and the approach used by independent experts. Specifically:

- In estimating a discount rate, independent experts view their key objective as obtaining their best estimate of a cost of equity that the market would expect for the relevant business. In seeking to arrive at their best estimate of the cost of equity, it is apparent that most independent experts are aware of the limitations of the CAPM and typically, consider the CAPM as a tool which provides guidance on estimating the cost of equity

- It is common for independent experts to make adjustments to the costs of equity produced from a bottom-up calculation using the CAPM formula, particularly when a mechanical application of the formula yields costs of equity and /or discount rates which are inconsistent with the rate of return which the expert considers the market expects from the relevant investment. For example, Ernst & Young's analysis highlights that in 17 independent expert reports issued in 2012 – a period marked by falling long term bond yields – independent experts explicitly considered whether:

    - Observed bond yields provided a suitable basis for measuring the risk free rate of return

    - It is appropriate to adopt a market risk premium higher than commonly adopted particularly in response to what is implied by the observed bond yields

    - The overall cost of equity calculated using the CAPM and/or discount rate calculated using the WACC formulae requires adjustment to appropriately reflect market expectations.[84]

- Where application of the CAPM or WACC formula yielded results which were inconsistent with the expert's view of the rates of returns required by the market, they exercised their discretion to depart from a mechanical application of the relevant formula, either by adopting input values that were more consistent with their views,[85] or by directly adjusting the cost of equity outcome[86] or the overall rate of return applied in the

[83] Ernst & Young, Ibid, para. 64.
[84] Ernst & Young, Ibid, para. 61.
[85] Ernst & Young refers to Deloitte's expert report on Gloucester Coal Ltd, 26 April 2012, as an example of this.
[86] Ernst & Young refers to Grant Samuel's valuation of DUET Group (3 October 2012) an example of this. The cost of equity implied in Grant Samuel's valuation was 11.0% as compared to its calculated cost of equity of 7.8%. This implies a direct adjustment of 3.2%.

valuation.[87] In particular, the data shown in Appendix C of Ernst & Young's report – which is further dissected at Figure 4 below - shows that:

- The implied market cost of equity in 12 independent expert reports exceeded the market cost of equity that would have been derived using the AER's methodology notwithstanding that, like the AER, they adopted a value of 6% for the MRP. In 10 of these reports, the independent expert's implied market cost of equity reflected a value for the risk free rate that was higher than that which would have been derived using the AER's methodology. That is, the experts considered that applying spot risk free rate observations were producing sufficiently abnormal estimates of the required return on equity to warrant taking a different approach

- In 4 of the 12 reports noted above, the independent expert made direct upwards adjustments to calculated values using the CAPM and WACC formulae. Two of these were direct uplifts to the calculated cost of equity[88] and two were direct uplifts to the overall calculated WACC.[89] In one instance, a direct uplift was made to the calculated cost of equity in addition to the expert adopting a value for the risk free rate above the observed spot rate[90]

- 5 of the 17 independent expert reports examined applied a value for the MRP in excess of 6%, and in 4 instances, a value (or midpoint value) of 7% was applied. Ernst & Young's report highlights that in two of these expert reports which were issued by Deloitte, the value adopted for the MRP was increased from the value adopted by the same expert in previous reports and specifically attributed to the expert's view that the MRP had increased.

Figure 4: Further analysis of data in Ernst & Young's 2012 report

		A	B	C=A-B	D	E	F=D-E	G	H	I=G-H	J=C-(F+I)
		IE Implied MCOE	AER implied MCOE	Difference	IE Risk free rate applied	AER risk free rate allowed	Difference	IE Mid-point value MRP	AER MRP Applied	Difference	Other MCOE Differences
KIP McGrath Centre Ltd	5/01/2012	10.91%	9.90%	1.01%	4.91%	3.90%	1.01%	6.00%	6.00%	0.00%	0.00%
oOh!media Group Ltd	20/01/2012	11.00%	9.95%	1.05%	5.00%	3.95%	1.05%	6.00%	6.00%	0.00%	0.00%
Aston Resources Ltd	6/03/2012	11.10%	9.82%	1.28%	5.10%	3.82%	1.28%	6.00%	6.00%	0.00%	0.00%
CMI Ltd	29/03/2012	11.40%	10.16%	1.24%	4.50%	4.16%	0.34%	6.00%	6.00%	0.00%	0.90%
Ludowici Ltd	3/04/2012	10.60%	10.00%	0.60%	4.60%	4.00%	0.60%	6.00%	6.00%	0.00%	0.00%
ING Real Estate Community Living Group	24/04/2012	10.92%	10.02%	0.90%	3.92%	4.02%	-0.10%	7.00%	6.00%	1.00%	0.00%
Gloucester Coal Ltd	26/03/2012	11.44%	10.13%	1.31%	4.44%	4.13%	0.31%	7.00%	6.00%	1.00%	0.00%
Nexbis ltd	9/05/2012	10.50%	10.16%	0.34%	4.50%	4.16%	0.34%	6.00%	6.00%	0.00%	0.00%
Genesis Resources Ltd	13/06/2012	9.54%	9.08%	0.46%	3.04%	3.08%	-0.04%	6.50%	6.00%	0.50%	0.00%
Norton Gold Fields Ltd	13/07/2012	10.00%	8.98%	1.02%	4.00%	2.98%	1.02%	6.00%	6.00%	0.00%	0.00%
Spotless Group Ltd	15/07/2012	9.40%	9.01%	0.39%	3.00%	3.01%	-0.01%	6.00%	6.00%	0.00%	0.40%
Hastings Diversified Utilties Fund	3/08/2012	12.40%	8.87%	3.53%	3.00%	2.87%	0.13%	6.00%	6.00%	0.00%	3.40%
Westgold Resources Ltd	16/08/2012	10.18%	8.97%	1.21%	3.18%	2.97%	0.21%	7.00%	6.00%	1.00%	0.00%
Arafura Resources Ltd	13/09/2012	9.99%	9.20%	0.79%	2.99%	3.20%	-0.21%	7.00%	6.00%	1.00%	0.00%
Consolidated Media Holdings Ltd	24/09/2012	10.30%	9.19%	1.11%	4.30%	3.19%	1.11%	6.00%	6.00%	0.00%	0.00%
Bremer Park Ltd	28/09/2012	9.30%	9.11%	0.19%	3.30%	3.11%	0.19%	6.00%	6.00%	0.00%	0.00%
DUET Group	3/10/2012	12.20%	9.08%	3.12%	3.00%	3.08%	-0.08%	6.00%	6.00%	0.00%	3.20%
Average		10.66%	9.51%	1.15%	3.93%	3.51%	0.42%	6.26%	6.00%	0.26%	0.46%

Note: IE = independent expert; MCOE = market cost of equity

It is evident from the above analysis that the majority of independent experts have been compelled to address the issues posed by applying the conventional CAPM approach in an environment of low bond yields.

The FIG understands that additional analysis commissioned by the ENA which extends the dataset in Ernst & Young's analysis to the end of February 2013 affirms this result and shows that it has persisted to early 2013.

[87] Ernst & Young refers to Grant Samuel's independent expert report on Hastings Diversified Utilities Trust, 3 August 2012, as an example of this.
[88] These were the independent expert reports for CMI Ltd and the DUET Group.
[89] These were the independent expert reports for Hastings Diversified Utilities Trust and the Spotless Group.
[90] Independent Expert Report by Lonergan Edwards on CMI Ltd, 29 March 2012.

The FIG considers that these analyses provide important insights about how market practitioners interpret data and assess required rates of returns. On that basis, it can be usefully applied to test the reasonableness of the AER's cost of equity estimates. The approach taken by independent experts also illustrates how the use of models such as the CAPM, balanced by a sensible commercial mindset, can produce outcomes that remain realistic.

The AER's final decisions on the Victorian gas businesses would appear to have incorrectly dismissed the value of this evidence. The AER's consultant, CEPA also mischaracterised the information from independent expert reports as "*...secondary data, from broker literature rather than direct empirical evidence.*"[91] In the FIG's view, CEPA failed at the outset to recognise the basis for the higher level of reliance that can be placed on this evidence, which was clearly outlined in paragraphs 36 to 51 of Ernst & Young's report.

The FIG would also draw the AER's attention to the fact that in its recent draft decision on regulated electricity retail tariffs for the 2013-2016 in NSW, IPART has sought to modify its approach to estimating WACC:

"...we have reached the view that in the current market conditions, our existing methodology yields estimates of the WACC that are too low by market standards."[92]

On this basis, IPART applied a 10 year average of the 10 year Commonwealth Government Bond yield for the purpose of estimating the risk free rate of return, in place of its previous 40 day averaging period, in estimating the appropriate rate of return to electricity retailers for the purposes of its bottom up build approach.

Importantly, IPART drew heavily on information contained in 6 independent expert reports to choose an appropriate WACC within its range of feasible values, and found that:

"The 6 independent expert's reports provided several valuable implications for selecting an appropriate WACC within the range.

- *With respect to the risk-free rate, the independent experts generally seemed to agree that [the] current risk-free rate is unusually low as compared to the historical average.*
- *With respect to the MRP, the independent experts either*
  - *Considered the expected MRP using current market data*
  - *Chose a MRP range higher than our MRP range of 5.5% to 6.5%.*
- *Given the unusual current market conditions, the independent experts made adjustments to the expected cost of equity estimation. Most independent experts included an additional risk premium in calculating the expected cost of equity, which subsequently increased the WACC.*

Based on the evidence, we consider that appropriate point estimates for the expected cost of equity and the expected cost of debt should be chosen, having regard to both current market data and long-term averages."[93]

4.3.3 Return on debt

4.3.4 Observations

The new rules incorporate some fundamental changes to the way in which the cost of debt allowance for a regulatory control period is to be established. Essentially, the options are an allowance based on:

[91] CEPA, Advice on estimation of the risk free rate and market risk premium, Report prepared for the Australian Energy Regulator, 12 March 2013, page 45.
[92] IPART, Review of regulated retail prices for electricity, 2013 to 2016, Electricity – Draft Report, April 2013, page 154.
[93] IPART, Ibid, page 164

- An "on the day" approach, that is, the cost of debt assuming that debt was raised just prior to the time of the AER's regulatory decision

- A trailing historical average approach, that is, the cost of debt assuming that debt was raised over a defined historical timeframe prior to the commencement of a regulatory year in a regulatory control period

- A hybrid approach – some combination of the above options.

In each case, the FIG notes that the allowance must:

- Reflect the efficient financing costs of a benchmark efficient entity, in respect of the provision of standard control services/ prescribed transmission services, facing similar risks to those faced by the service provider;

- Contribute the achievement of the allowed rate of return objective.

As noted elsewhere in this submission, the rules envisage that the benchmark efficient entity must be defined by reference to the risks faced by the relevant service provider, which follows that there can be multiple benchmark efficient entities for gas and electricity transmission and distribution service providers. This also implies that the AER could adopt more than one approach to estimating the allowance for the cost of debt for gas and electricity transmission and distribution service providers, as the approach adopted must reflect the risks of the relevant service provider.

The FIG therefore considers that the Guidelines must set out:

- How the AER intends to implement each of the three approaches that it entitled to apply under the rules. In particular, it must also provide clarity on the factors the AER will have regard to in determining how it will give effect to the rule requirement on the desirability of minimising any difference between the return on debt of the service provider and the return on debt of a benchmark efficient entity

- The range of factors that the AER would seek to consider in deciding which approach is to be applied to a service provider at the time of its regulatory decision.

The FIG considers that the above can only be achieved if the AER:

- Considers the debt management practices that would likely be employed by the relevant service provider, assuming it is efficient. This will require an understanding of what types of risks firms are seeking to manage and what this means for the sources and types of debt employed, the desired maturity profile of the debt portfolio, and the degree of hedging undertaken. It should also ideally distinguish between long term debt management strategies and short term tactical strategies which respond to specific market conditions

- Considers which of the three approaches specified in the rules best matches the service provider's likely practice

- Considers the merits of minimising the differences between the service provider's likely return on debt and the return on debt for the benchmark efficient service provider. This should be from the perspective of the service provider (including its equity investors since they bear the risks associated with gearing) and consumers.

The FIG accepts that the Guidelines cannot be expected to go into a precise level of detail on the how the cost of debt will be calculated, however, there must be sufficient information to enable service providers to develop their proposal for the cost of debt at the time of the

regulatory decision and understand the implications of the approach they are seeking to apply.

4.3.5 Responses to issues for consultation

Question 6.1

Do you support our proposal of having a single approach for estimating the return on debt should be used for the definition of the benchmark efficient entity (or for each definition, if more than one benchmark is used)?

On the whole, we consider that it is conceivable that there could be more than one efficient financing approach for the in respect of the provision of standard control services/ prescribed transmission services efficient entity that has a similar degree of risk as the service provider in question. We consider that the AER should remain open to this possibility and that the Guidelines should set out how it intends to address this issue if it arises.

Question 6.3

What are the considerations that we should have when setting the gearing level?

The FIG considers that the appropriate gearing level must be defined by reference to the gearing level of the benchmark efficient entity. The question of the extent to which it is feasible and efficient to finance a business with debt should be informed by observing how businesses in practice make capital structure decisions. We consider these factors would include (but are not limited to) the cost of raising debt (which may be in turn dependent on the credit rating of the business) and the level, stability and timing of its cash flows (which is an indicator of its ability to service its debt obligations).

We understand that the ENA's submission will provide further and more detailed comment around these issues.

Question G.2

What should be our considerations when deciding whether transition between benchmarks is required? How should we apply transition while retaining the properties of incentive-based regulation?

The FIG appreciates that the new rules have fundamentally changed how the allowance for the cost of debt may be established compared with the previous "on the day" approach. Many of the complexities associated with the new rules on this matter still need to be worked through in consultation with the stakeholders.

Given the magnitude and significance of these changes, it may be necessary to consider appropriate transitional arrangements where a trailing average or hybrid approach is to be applied, at least for the first round of regulatory decisions to be made in accordance with the new rules as potential under-recovery of costs may need to be managed.

4.4 Imputation credits

4.4.1 Observations

The AER's Consultation Paper indicates that the AER is seeking to revisit the value of imputation credits as part of the development of its rate of return guidelines. As with the questions which have been raised over the term to maturity for the return on equity, the FIG questions the value of revisiting this issue particularly given:

- The extensive recent debate that has already occurred to date, which has ultimately been tested and decided by the Tribunal

- The fact that there is no evidence that market practitioners (i.e. independent experts) take such information into account in estimating required rates of returns.

Other than to review new evidence that may emerge from time to time, which we understand is one of the AER's obligations under the new rules, we see no reason to continue again revisiting such matters.

4.5 Debt and equity raising costs

4.5.1 Observations

Refer response to question 8.1 below.

4.5.2 Responses to issues for consultation

Question 8.1

Do you support our preliminary position of not setting a specific allowance for debt and equity raising costs, and instead, remunerating them elsewhere in the revenue building blocks?

The FIG considers that debt and equity raising costs are legitimate costs that are incurred by service providers in the process of raising capital. The FIG therefore supports the continued allowance of these costs within the revenue requirement formula.

The FIG would add that if these allowances are to be remunerated within the rate of return, there must be an explicit allowance for them. It would not support a model where the allowance for such costs are gradually eroded away on the basis that the AER has been "generous" on its allowed rate of return and therefore considers these costs to be adequately allowed for in the overall estimate.

4.6 Forecast inflation

4.6.1 Observations

The FIG agrees with the AER's observation that the measurement of forecast inflation is undertaken differently but different regulators around Australia. Ultimately, the best approach is one which minimises forecasting errors and is least costly to implement.

Appendix A The Financial Investor Group

FIG members have interests in well over $30 billion of Australian energy network assets, most of which are regulated. This is a substantial proportion of Australia's privately owned energy network assets, and about 40% of those subject to economic regulation.[94] Table 1 below provides some details of the key assets owned by FIG members.

Table 1: Description of key assets

Investor	Description of key assets
The APA Group	The APA Group is the manager of a listed energy infrastructure vehicle with interests in more than 12,000 km of gas transmission infrastructure, over 2,800 km of gas distribution network in Queensland, two high voltage direct current electricity interconnector systems and other energy related assets.
ATCO Gas Australia	ATCO Gas Australia is part of the ATCO Group, with $11 billion of assets in the utilities (pipelines, natural gas and electricity transmission and distribution), energy (power generation, natural gas gathering, processing, storage and liquids extraction) sectors, structure & logistics and technologies sectors. In Australia, it owns the WA Gas Networks Distribution Systems.
Cheung Kong Infrastructure and Power Assets	Cheung Kong Infrastructure (CKI) is a listed infrastructure company in Hong Kong with diversified investments in energy, water and transport infrastructure. CKI holds a 39% interest in Power Assets, a global investor in power and utility-related businesses with investments in electricity generation, transmission and distribution, renewable energy and gas distribution. Power Assets owns HK Electric which is responsible for the generation, transmission and distribution of electricity on Hong Kong Island. Together CKI and Power Assets have a 51% interest in SA Power Networks, CitiPower and Powercor (combined RAB of $7 billion), a 19% interest in Envestra and an 8.5% interest in Spark Infrastructure. They also own Wellington Electricity in New Zealand, three electricity distribution networks in the UK serving 8 million customers, a gas distribution network in the UK serving 2.6 million customers, and a water and waste water distribution network in the UK serving 4.5 million customers. CKI also has a number of interests in utility infrastructure across the UK, New Zealand, Canada and China.
The DUET Group	The DUET Group is a listed energy infrastructure vehicle which has interests in the Dampier to Bunbury Natural Gas Pipeline (80%), United Energy Distribution (66%), and Multinet Group Holdings (100%).
Envestra	Envestra is Australia's largest listed specialist natural gas distribution company, owning over 22,000km of networks in Victoria, South Australia, Queensland, New South Wales and the Northern Territory. Envestra delivers 110 petajoules of natural gas to over one million customers across its networks.
Hastings Funds Management	Hastings transforms global infrastructure investment opportunities to deliver long-term value. Having established one of the first dedicated infrastructure equity funds, Utilities Trust of Australia, in 1994 and one of the first infrastructure focused debt funds, Hastings Yield Fund, in 1999, Hastings has experienced steady growth and manages approximately A$7.4 billion (as at 31 March 2013) across nine investment funds and other vehicles on behalf of a range of investors. Hastings is an active investor in core infrastructure across a number of sectors including airports, toll roads, seaports, water utilities, electricity generation and electricity transmission, including an interest in ElectraNet.
Singapore Power Group	Singapore Power Group owns and operates electricity and gas transmission and distribution businesses and provides energy market support services in Singapore and Australia, primarily in Victoria, New South Wales and Queensland. In Australia, SP owns a diversified energy utility company, SPI (Australia) Assets, primarily consisting of the Jemena companies, and a stake in SP AusNet[95], which is publicly listed on the Australian and Singapore Stock Exchanges.
Spark Infrastructure	Spark Infrastructure is a listed energy infrastructure vehicle which holds a 49% interest in three regulated electricity distributors – CitiPower and Powercor in Victoria, and SA Power Networks in South Australia.

[94] These estimates are based on AER data. See AER, State of the Energy Market Report, 2012. They rely on RAB values for regulated and actual cost for non-regulated assets, but exclude recent capex for certain assets due to information constraints. By value, the vast majority of these assets are subject to formal economic regulation.
[95] In May 2013, a subsidiary of State Grid Corporation of China agreed to acquire a 19.9% stake of SP AusNet from SP. Upon completion, SP will own a 31.1% stake in SP AusNet.