



**Reasonably rated: submission to the
AER's Draft Rate of return Guideline**

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Bev Hughson, Darach Energy Consulting Services

**Carolyn Hodge, Senior Policy Officer
Energy + Water Consumers' Advocacy Program**

Disclaimer

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The views expressed in this document do not necessarily reflect the views of the Consumer Advocacy Panel or the Australian Energy Market Commission.

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Introduction

The Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC identifies public interest issues and, where possible and appropriate, works co-operatively with other organisations to advocate for individuals and groups affected. PIAC seeks to:

- expose and redress unjust or unsafe practices, deficient laws or policies;
- promote accountable, transparent and responsive government;
- encourage, influence and inform public debate on issues affecting legal and democratic rights; and
- promote the development of law that reflects the public interest;
- develop and assist community organisations with a public interest focus to pursue the interests of the communities they represent;
- develop models to respond to unmet legal need; and
- maintain an effective and sustainable organisation.

Established in July 1982 as an initiative of the (then) Law Foundation of New South Wales, with support from the NSW Legal Aid Commission, PIAC was the first, and remains the only broadly based public interest legal centre in Australia. Financial support for PIAC comes primarily from the NSW Public Purpose Fund and the Commonwealth and State Community Legal Services Program. PIAC also receives funding from Trade and Investment, Regional Infrastructure and Services NSW for its work on energy and water, and from Allens for its Indigenous Justice Program. PIAC also generates income from project and case grants, seminars, consultancy fees, donations and recovery of costs in legal actions.

Energy + Water Consumers' Advocacy Program

This program was established at PIAC as the Utilities Consumers' Advocacy Program in 1998 with NSW Government funding. The aim of the program is to develop policy and advocate in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives policy input to the program from a community-based reference group whose members include:

- Council of Social Service of NSW (NCOSS);
- St Vincent de Paul Society NSW;
- Combined Pensioners and Superannuants Association of NSW;
- Park and Village Service;
- Ethnic Communities Council NSW;
- Rural and remote consumers;
- Retirement Villages Residents Association;
- Physical Disability Council NSW; and
- Affiliated Residential Park Residents Association.

1. The current review

1.1 Background

PIAC thanks the Australian Energy Regulator (AER) for providing a further opportunity to respond to the Guidelines that are being developed as part of its Better Regulation Program.

The overarching purpose of the Better Regulation Program is to provide an improved framework for the economic regulation of network service providers (NSPs). The improved framework is focussed on delivering efficient and prudent network services that meet the long-term interests of energy consumers.

The AER, its staff and expert consultants are to be commended for their on-going efforts to engage all stakeholders in these important reforms to the National Energy Market (NEM) and the east-coast gas market.

The final Guidelines will provide both electricity and gas NSPs and other interested stakeholders with information on how the AER will go about assessing the NSPs' revenue proposals and what principles the AER will apply to this assessment. While the Guidelines are not mandatory, they carry a strong presumption that they will be followed and any variation from the principles and approaches set out in Guidelines by either the AER or a NSP will need clear justification.

The development of these Guidelines is, therefore, a key part of the reforms to the economic regulation of electricity networks that commenced in 2011 and culminated in the significant changes enacted by the Australian Energy Market Commission (AEMC) to Chapter 6 (the Economic Regulation of Distribution Services), Chapter 6A (the Economic Regulation of Transmission Services) of the National Electricity Rules (NER) in November, 2012. The AEMC also made relevant changes to Part 9 Division 5 of the National Gas Rules (NGR).

The 'allowed rate of return' is a fundamental component of the NEM's incentive based regulatory regime. The allowed rate of return impacts directly on consumer prices. However, it also impacts on prices indirectly through the interrelationships between the rate of return and other components of the regulatory regime such as the capital expenditure allowances and the expenditure and service performance incentives schemes. It is not surprising, therefore, that the rate of return has been the subject of considerable attention by all stakeholders including the AER, NSPs, governments and consumers.

This submission responds to the AER's Draft Rate of Return Guideline. The Draft Rate of Return Guideline sets out the AER's proposed approach to establishing a new framework for assessing the efficient rate of return to apply to the determination of the NSPs' revenue allowances.

The relevant documents considered by PIAC in forming its view are:

- AER Draft Rate of Return Guideline (Draft RoR Guideline);¹
- AER Explanatory Statement, Draft Rate of Return Guideline (Draft RoR Explanatory Statement).²

¹ AER, *Better Regulation, Draft rate of return guideline*, 2013.

The AER proposes that the Rate of Return Guideline will apply to electricity and natural gas (gas) transmission network service providers (TNSPs) and electricity and gas distribution network service providers (DNSPs) operating in the NEM.³

PIAC agrees with this approach and would also highlight that productivity in the utility sector of the economy has declined significantly over the last ten years while network prices have grown rapidly, acting as a break on in the wider economy.⁴ The effective implementation of the new Rate of Return Guideline is critical to turning around this decline in productivity in the sector.

1.2 The AER's Issues Paper and Consultation Paper

PIAC made a detailed submission to the AER in February 2013⁵ in response to the AER's initial Issues Paper on the rate of return⁶ (the Issues Paper). The Issues Paper set out the AER's views on the key regulatory principles and issues to be addressed by the AER in developing a new rate of return framework. In June 2013, PIAC made a further submission⁷ in response to the AER's Consultation Paper (Consultation Paper).⁸ The Consultation Paper provided some additional analysis of many of the matters raised in the Issues Paper along with some indication of the AER's emerging views on its overall approach to the assessment of the allowed rate of return.

1.2.1 PIAC's response to the AER's Issues Paper

In its submission on the AER's Issues Paper, PIAC highlighted the significant concerns of consumers with the effectiveness of the regulatory framework in delivering outcomes that were consistent with the long-term interests of consumers as required by the National Electricity Objective (NEO) and the National Gas Objective (NGO).

PIAC's position is not unique. It builds on many other investigations into the current economic regulatory framework that have arisen out of the impact of the rapid increases in electricity network costs on business and residential consumers in the NEM.⁹

PIAC highlighted, in particular, the harm to the long-term interests of energy consumers as a result of the combined impact of high allowances for the rate or return and for capital expenditure and exacerbated by the incentives that a high rate of return provides to some NSPs to overspend their capital expenditure allowances.

² AER, *Better Regulation, Explanatory statement, Draft rate of return Guideline*, 2013.

³ The AEMC's amendments in November 2012 to the NGL related to the rate of return only. The AEMC did not amend the rules relating to expenditure forecast assessments or network incentive schemes.

⁴ See for instance, Productivity Commission, *Electricity Network Regulatory Frameworks, Productivity Commission Inquiry Report*, Volume 1, p 112.

⁵ Hughson, B, and Hodge, C, *Better returns for consumers, PIAC submission to the AER's Issues Paper – Rate of return guidelines*, 2013.

⁶ AER, *Better Regulation, Rate of Return Guidelines, Issues Paper*, 2012.

⁷ Hughson, B, and Hodge, C, *Balancing risk and reward: submission to the AER's Consultation Paper: Rate of return guideline*, 2013.

⁸ AER, *Better Regulation Consultation paper, Rate of return guidelines*, 2013.

⁹ See for instance: AEMC, *Economic Regulation of Network Service Providers and Price and Revenue Regulation of Gas Services, Final Position Paper*, 2012; Productivity Commission, *Electricity Network Regulatory Frameworks*, 2013.

While these interacting issues do not apply equally to all determinations by the AER, nor to all NSPs, the overall impact is one of excess investment, rapidly rising prices and loss of confidence of consumers in the very regulatory processes designed to ensure efficient and prudent expenditure in consumers' long-term interests.

1.2.2 PIAC's response to the AER's Consultation Paper

PIAC also made a number of recommendations in response to the AER's Consultation Paper. These included:

- *minimising the number of 'benchmark efficient entities'; multiple benchmarks would entrench inefficient performance and organisational structures;*
- *the approach should be based on a sound understanding of the relative risks facing regulated monopoly businesses and of how and by whom these risks can best be managed;*
- *the approach should provide incentives for continuous improvements in capital investment and capital management;*
- *the approach should recognise the expectations of investors when they invest in a regulated network with long-term assets; investors seek stable low-risk returns not highest returns;*
- *the approach should provide greater stability and consistency in pricing network services and avoid the cycles of under and over-investment in networks;*
- *when considering transitional arrangements, the AER should be cognisant of the benefits that the current regulatory determinations have delivered to NSPs; network returns have been above the rates of return observed in higher risk businesses; and*
- *the new approach should build on the consultative and cooperative processes that have emerged during the Guideline development process.*¹⁰

The Draft RoR Guideline has addressed a number of PIAC's concerns and responded to a number of the recommendations listed above. The Draft RoR Guideline also provides more detail regarding the AER's proposed approach including a number of significant changes from the proposals in the Consultation Paper.

Having reviewed the Draft RoR Guideline and Draft RoR Explanatory Statement, along with the papers from various experts, PIAC believes that the recommendations set out in its submission to the AER's Consultation Paper remain relevant to the Draft RoR Guideline.

1.3 The Draft Rate of Return Guideline

The rules require the AER to develop a Rate of Return Guideline that sets out:

- the method the AER will use to estimate the allowed rate of return for electricity and gas networks. This allowed rate of return is comprised of the weighted average of:
 - the return on equity; and
 - the return on debt;

¹⁰ Hughson B and Hodge C, above n 7, 6–10.

- the method the AER will use to estimate the value of imputation tax credits used to establish a benchmark corporate income tax allowance; and
- how these methods will result in an estimated return on equity, return on debt and value of imputation tax credits which is consistent with the allowed rate of return objective.¹¹

The first ‘test’ of the AER’s proposal is therefore whether its determination of the allowed rate of return achieves the allowed rate of return objective that is set out in the NER and NGR as follows:

...that the rate of return for a [regulated network] is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the [service provider] in respect of the provision of [regulated services].¹²

1.3.1 Overview of the Draft RoR Guideline – a first impression

PIAC appreciates the challenge that faced the AER in balancing the requirement in the rules to consider a variety of different approaches to estimating what is essentially unknowable—the expected rate of return required by a NSP to enable the efficient provision of network services over a 5-year regulatory period.

The extensive consultation process that has occurred during the development of the RoR Guideline is commendable and by finding a balance between certainty and flexibility, the RoR Guideline should assist all stakeholders.

Certainly, PIAC finds that the Draft RoR Guideline, when read in conjunction with the Explanatory Statement, provides a clear sense of how the AER intends to go about making its assessments of the NSPs’ proposals and its final determinations. Indeed, PIAC is somewhat surprised by the continued calls for the RoR Guideline to provide more transparency, more flexibility and more certainty. PIAC would encourage the AER to continue with its current overall approach to the RoR Guideline.

This is not to say that PIAC agrees with all the details of the AER’s proposed approach, although there are many good features. This submission will put forward PIAC’s views, both negative and positive on these details.

However, as an overall comment, the Draft RoR Guideline represents a very genuine attempt to come to terms with the complexities of the AEMC’s rule changes. No doubt there will be further changes to the RoR Guideline in three years time, but the proposed RoR Guideline represents a very useful first step on the way to reforming network regulation. PIAC anticipates that once the RoR Guideline is ‘put into action’ in the real world, some of the concerns expressed by stakeholders with the overall approach will be resolved.

In section 1.3.2 below, PIAC makes a number of recommendations for the AER to consider in the final RoR Guideline. Section 2 provides a summary of the main areas where PIAC finds agreement with the AER’s proposal and those where PIAC believes further work is required.

¹¹ Summary of NER, cl 6.5.2(n) and 6A.6.2(n); NGR r 87(13).

¹² NER, cl 6.5.2(c) and cl 6A.6.2(c); NGR, r 87 (3).

Sections 3 to 5 provide a more detailed analysis of the AER's Draft RoR Guideline with a focus on the assessment of risk (section 3), the return on equity (section 4) and the return on debt, including transition to the proposed new approach to the assessment of the return on debt (section 5).

However, the submission should also be read in the context of PIAC's appreciation of the significant progress that has been made on this complex issue and the consultative manner in which the process has been conducted.

1.4 Recommendations

Recommendation 1

That a period of five years is used to calculate the FV yield curve and is applied to the historical averaging period. Should this recommendation be adopted, PIAC would also recommend the AER move directly to the trailing average portfolio approach at the next relevant determination without a transition period.

Recommendation 2

The AER reject the multi-model approach and adopt the Sharpe Lintner CAPM model as the foundation model to establish the return on equity.

Recommendation 3

The AER take into account the additional protection that NSPs receive under the broader regulatory arrangements from the risk of default by their customers, the energy retailers.

Recommendation 4

The AER ensure that in assessing the equity beta (and other risk related components) there is explicit recognition that the changes to the approach to estimating return on debt, significantly reduce the financing risks for investors in the NSP. Historical analysis of excess returns should be tempered by acknowledgement of this significant change.

Recommendation 5

In evaluating the NSPs' arguments against the AER's new framework, the AER should take into account, the fact that the investment community considers NSPs provide sturdy yields and predictable cash flows in a stable regulatory environment. The AER should also take into account the manner in which NSPs promote themselves to investors in like vein.

Recommendation 6

The AER should further develop methodologies for assessing the overall rate of return, particularly given the potential for the cumulative impact of models and data used to 'inform' or guide the Sharpe-Lintner CAPM and the return on debt methodology which collectively are likely to bias upwards the overall rate of return.

Recommendation 7

The AER reconsider how it applies the various alternative models in the overall framework for estimating the return on equity. The AER's own analysis indicates that a number of the models used to 'inform' or guide the decision are highly sensitive to assumptions and can generate volatile and conflicting results. Consumers should not be exposed to the risks of unstable models.

Recommendation 8

The AER ensure that the final RoR Guidelines are explicit about the limitations of alternative models to determine the cost of equity. The RoR Guideline should also eliminate the ability of NSPs to choose between these less satisfactory models according to which provides the higher rate of return at a particular time.

Recommendation 9

The final RoR Guideline limit any in-built bias and make clear that the Black CAPM is just one of the various measures of equity beta that has no special role in setting the quantum of the equity beta outcomes. The use of the Black CAPM should be strictly limited to a qualitative assessment of the direction of the equity beta.

Recommendation 10

The AER should ensure that its approach recognises this circularity issue, such that past generous regulatory allowances do not lead to future regulatory allowances exceeding the risk adjusted efficient return on equity.

Recommendation 11

The AER restricts the use of the DGM to a minimum role in the assessment of the return on equity reflecting the reliance of the DGM on the input assumptions and the high level of volatility in the outputs of the DGM.

Recommendation 12

The AER restricts the use of the Wright CAPM to a minimum role in the assessment of the return on equity reflecting the inconsistent correlation results that have been observed when the Wright CAPM approach is tested empirically

Recommendation 13

The RoR Guideline provides clear guidance on the role each alternative model will play in the final determination and the degree to which these models can influence the final point estimate outcome, both individually and collectively.

Recommendation 14

The RoR Guideline should explicitly state that if a NSP proposes an approach to the AER's framework (such as the 'multi-model' approach developed by the Energy Networks Association) that differs from the AER's framework approach, then the NSP must explicitly evaluate their alternative against all the criteria in the Guideline and demonstrate that the result is in the long-term interests of consumers. This includes demonstrating that the alternative model is not subject to volatile or contradictory results but rather produces reliable and stable results over time.

Recommendation 15

The AER should critically examine claims by NSPs for recovery of costs associated with the change in the return on debt calculation. This examination should analyse whether NSPs have means to avoid costs through staggered debt portfolios or flexible financing arrangements through parent companies.

Recommendation 16

If the benefits of moving to a trailing average outweigh additional costs, the AER should investigate the development of a compensatory scheme to pass those benefits on to consumers.

Recommendation 17

PIAC recommends that the AER undertake further assessment on the length of interest rate cycles in order to inform the final decision on annual updating of the return on debt and the trade-off between the cost of this and the long-term benefit to consumers.

Recommendation 18

The AER should continue to develop its own database of information on relevant corporate bonds in the Australian market place and relevant overseas markets, in order that it can critically evaluate commercial third-party providers of bond yields.

Recommendation 19

To maintain the integrity of the annual updating process (if the AER proceeds with this proposal), the AER should also undertake an assessment of the consistency of the third-party provider's yield curves from year to year, including a better understanding of which bonds are included and excluded over the course of time.

Recommendation 20

The AER should undertake further investigation to identify if there are consistent intra-year cycles of interest rates and bond yields before it proceeds with allowing the NSPs to select an averaging period at any time within a six to 18 month window preceding the determination.

Recommendation 21

The AER undertake a further investigation of the NSPs current portfolios of debt instruments taking into account the mix of short and long-term debt before the AER decides on the average debt tenor in the return on debt assessment. This has important implications for the reliability of the outcomes and their impact on consumers.

Recommendation 22

The AER further consider whether a seven-year transition period is the most appropriate way to reduce the risk of gaming the trailing average approach, or whether there are other mechanisms that can be included in the final RoR Guideline to reduce the risk of gaming.

Recommendation 23

The AER's approach should not be driven by the particular preferences of NSPs with particular ownership characteristics.

2. Summary and conclusions

The summary will provide a very high level ‘snap-shot’ of the main areas where PIAC agrees or has concerns with the AER’s proposed approach. The detailed reasoning for PIAC’s views can be found in sections 3 – 5.

2.1 Areas of agreement with the AER’s proposed approach

The AER’s Draft RoR Guideline includes a number of proposals that PIAC strongly supports. In PIAC’s view, these particular proposals will support the allowed rate of return objective and will promote the achievement of the NEO and NGO. They include:

- The AER’s proposal to adopt the following frameworks in the RoR Guideline following a systematic review of all the modelling options:
 - for the return on equity: adopting a foundation model, the Sharpe-Lintner Capital Asset Pricing Model (CAPM), which will set the range and initial point estimate; Other models and data will be used to inform, provide a range or directional information for different CAPM parameters and for the overall return on equity; and
 - for the return on debt: adopting a ‘trailing average portfolio’ approach with annual updating for all NSPs, rather than the ‘menu approach’ where NSPs can select from the trailing average portfolio, ‘on the day’, or ‘hybrid’ approaches;
- establishing a set of ‘rate of return assessment criteria’ in order to more objectively and transparently assess the validity and usefulness of the many competing models and approaches to determining the rate of return.¹³
- using a single ‘benchmark efficient entity’ to assess the rate of return parameters across all network sectors, i.e., across electricity and gas transmission and distribution networks,¹⁴ and across different sizes and corporate structures;¹⁵
- providing a conceptual definition of this single benchmark efficient entity, based on a ‘pure play’ regulated energy network business operating within Australia’.¹⁶
- the AER’s comprehensive assessment of the risks of the benchmark efficient network business for which an investor should be compensated through the allowed rate of return;
- the AER’s transparent and structured approach to the evaluation of the models and data and setting out a hierarchy of decision making that enables multiple models and data to be considered in coming to a final rate of return decision.

PIAC particularly commends the AER and their consultants for their extensive investigation of the relationships between the allowed rate of return and risk. Risk is a key concept that influences both the cost of equity and the cost of debt. In particular, the concept of risk plays a central role in the ‘foundation model’, the Sharpe-Lintner CAPM. Overall, the RoR Guideline development

¹³ AER *Explanatory Statement, Draft RoR Guideline*, above n 2, 27 – 28. These criteria are a refinement of the criteria first set out by the AER in its 2012 *Issues Paper*, above n 6.

¹⁴ *Ibid*, 33, 47 - 49.

¹⁵ *Ibid*, 50 – 52.

¹⁶ *Ibid*, 33 and 47 - 48.

process, supported by a number of important research reports, provides a clear framework for assessing the competing econometric models and other information sources to be included in the final RoR Guideline.

2.2 Areas of concern with the AER's proposed approach.

2.2.1 Alignment with the NEO, NGO and the allowed rate of return objective

PIAC's principal concern is that the methodology proposed by the AER in the Draft RoR Guideline may not achieve the allowed rate of return objective. This is because the proposed approach is more likely than not to lead to an overstatement of the allowed rate of return relative to a 'benchmark efficient entity with the same degree of risk'. There are a number of reasons for making this claim:

- A number of the main models examined by the AER, such as the dividend growth model (DGM) and its variants, the Black CAPM and the White CAPM approach are overly sensitive to input assumptions and/or fail to provide robust, reliable and consistent outputs. However, the AER is still proposing to use these models in a 'strong' way, to inform the range or point estimate of the return on equity.
- The models are inconsistent in their treatment of risk, yet risk is a central feature of the rate of return analysis as it enables a distinction to be drawn between investment in the regulated entity and investment in the overall market. Models such as the DGM do not explicitly deal with this, and in the Australian context are therefore of limited value.
- The market risk premium (MRP)¹⁷ point estimate is likely to result in an over-estimation of the expected return on equity. The Sharpe-Lintner CAPM, the AER's foundation model, is well known and understood, including its practical limitations. PIAC's concern is that the use of other models to modify the outputs of the Sharpe-Lintner CAPM may collectively lead to an upward bias in the final rate of return point estimate.
- In particular, each of the supplementary models and data used to 'inform' or guide the estimates for the return on equity and the return on debt have a bias towards a higher rate of return. Potentially the cumulative impact of the individual biases are not in the long-term interest of consumers:
 - the Black CAPM will increase the equity beta towards the higher end of the range of equity betas derived from the Sharpe-Lintner CAPM, thereby increasing the return on equity on average;
 - the DGM and its multiple variations, has been demonstrated to produce estimates at the higher end of the expected return on equity;
 - the Wright CAPM approach is likely to lead to a higher cost of equity value (at this time) given its extreme assumption that there is a full inverse relationship between the risk free rate of return (RFR) and market risk premium (MRP) ;
 - the use of the Bloomberg Fair Value (FV) yield curve to define the cost of debt is likely to lead to a higher cost of debt because the sample of bonds includes many businesses with higher risks than an efficient NSP;

¹⁷ The MRP is typically defined as the difference between the overall return on equity and the risk-free rate.

- the use of a 7-year FV yield curve (while it is an improvement over a 10-year FV yield curve) is likely to increase the cost of debt relative to a 5-year FV yield curve;
 - the assumed gearing ratio (60 per cent debt) is conservative for a regulated network, leading to higher overall allowance for the rate of return;
 - given the relatively low risk profile of the regulated networks, the cost of debt is relatively low compared to other BBB+ rated companies;
 - defining the benchmark entity as a 'pure play' Australian company will lead to a higher allowed return on debt than actual cost of debt for an efficient NSP accessing international as well as Australian debt funding; and the adoption of a trailing average with annual updating for the cost of debt further reduces the financing risks of an efficient NSP. Unless this is recognised in the return on debt, there will be higher allowed return on debt than the actual cost.
- The averaging period for the calculation of the FV yield curve in the return on debt allows the NSP to select any time within a period of 6 to eighteen months prior to the regulatory period. This is too long and too open-ended; if there are long-term cycles of interest rates within the year (which there is some indication of), then these can be 'cherry picked' by the NSP; this is not in the long-term interests of consumers.

2.3 General Comments

2.3.1 Transitioning to the new approach for return on debt

The Draft Rate of Return Guideline also raises important issues about the transition from the current 'on the day' approach to the trailing average portfolio approach. PIAC can see the benefits of a transition period. However, on balance PIAC prefers to move directly to the trailing average portfolio approach at the next relevant determination without a transition period.

The caveat to PIAC's proposal is that PIAC also considers that moving directly to the new approach will work best if there is a shorter period used to calculate the FV yield curve and apply the historical averaging period. The recommended approach is to use a 5-year yield curve.

PIAC considers that the use of a 5-year yield curve is both conceptually and empirically sound as it links the allowed return on debt to the regulatory cash flows in the 5-year regulatory period (the net present value (NPV) neutral theory of cash flows), and allows a significantly larger sample of relevant bonds to be used in developing the yield curve.

In terms of the spread between the allowed return on debt and the NSP's actual cost of debt, the change to a 5-year trailing average portfolio approach should also be less disruptive to the NSP than the continuation of the current 'on-the-day' approach. In addition, the 5-year averaging period is sufficiently short that it avoids the risk of including historical years that are not relevant to estimating the future cost of debt.

Recommendation 1

That a period of five years is used to calculate the FV yield curve and is applied to the historical averaging period. Should this recommendation be adopted, PIAC would also recommend the AER move directly to the trailing average portfolio approach at the next relevant determination without a transition period.

2.3.2 Developing a database of financial information

PIAC is somewhat disappointed that the AER appears to have put aside the task of developing its own database on industry and market bonds and other financing instruments. PIAC is aware that the Australian Competition Tribunal has been highly critical of the AER in the past when it has used its own bond data sets. Nevertheless, PIAC considers that the AER should develop its expertise and resources in this important area if only to provide a robust sanity check on the outputs of the proprietary models, such as the Bloomberg fair value curve.

2.3.3 Alternative approaches to the rate of return on equity

The AER describes its approach to assessing the return on equity as a primary model with reasonableness checks, but with some aspects of alternative approaches.¹⁸ However, the Draft RoR Explanatory Statement includes a summary of two alternative models, one provided by the Energy Networks Association (ENA), the other by the Australian Pipeline Industry Association (APIA).

Based on the summaries provided by the AER in the Draft RoR Explanatory Statement, PIAC has considerable difficulty with both of the approaches, most particularly with the proposed approach put forward by the Energy Network Association (ENA); the ‘multi-model’ approach.

In essence, while the ENA’s model is described as a multi-model approach, in practice, the approach appears to be dominated by variations of the DGM. In particular, it appears from the AER’s analysis of the ENA’s approach, that the DGM sets the initial return on equity for the average firm, and then uses these outputs to feed into two other models, the Sharpe- Lintner CAPM and the Fama-French three factor model. Thus, the internal consistency of the Sharpe- Lintner CAPM is compromised. It is also effectively given the same (much diluted) weight as the Fama-French three factor model even though the latter model produces inconsistent results and has not been used in regulatory determinations.¹⁹

The AER states that the multi-model approach adds complexity to the analytical process. In addition, the approach leads to ‘relevant material being considered multiple times’.²⁰ In other words, there is a significant increase in complexity but little new ‘information’ is added by including multiple models in the approach suggested by the ENA. Nor does having multiple versions of the DGM significantly improve the level of information or even the reliability of the various DGM outputs, as there is little clarity about what each version is measuring compared to the others and how it adds additional information to the process.

Moreover, given the sensitivity of the DGM to the assumptions about forecast growth in dividends and gross domestic product (GDP), the heavy reliance on the DGM and its variants undermines the statistical, economic and practical value of the multi-model approach.

¹⁸ AER, *Explanatory Statement, RoR Draft Guideline*, above n 2, 69-70.

¹⁹ Ibid, 70. The AER suggests that only one-sixth weight is given to each of the Sharpe-Lintner CAPM and the Fama-French three factor model, and that the determination of these models incorporates DGM estimates of the return on the market.

²⁰ Ibid.

Adoption of this approach is therefore unlikely to deliver reasonable outcomes to consumers over the longer term and may even be detrimental to the NSPs over the longer term. With the DGM and its variants generating such variable and unpredictable outcomes, the NSPs risk the stability of their own cash flows in the future (for instance, the DGM is reported to have generated MRP estimates as low as 2 per cent and as high as 9.56 per cent, see below). The DGM could be as much a threat to the certainty of the NSPs' cash flows as it is to the short and long-term interest of consumers.

PIAC also refers to the Tribunal's recent decision on APA/GasNet's appeal against the AER's decision to use a MRP of 6 per cent in the rate of return assessment. The Tribunal clearly confirmed the AER's right to exercise its discretion in this area and was also highly critical of the DGM modeling provided to it by APA, particularly the use of the DGM as a primary source of information on the MRP. The Tribunal's views are illustrated below:

forward-looking methods like those based on the DGM and implied volatility estimates, both of which yielded highly variable results and were subject to significant limitations.²¹

It is well known that DGM estimates are highly sensitive to assumptions made ...DGM estimates are sensitive to assumed future growth rates on which consensus is rarely found. The expected market growth rate in dividends per share, a key input into the DGM analysis is typically proxied by analysts' short-term forecasts of market-wide earnings per share growth or by long-term expectations of GDP growth or both.²²

Different consultants had produced widely different DGM-based MRP estimates over a short period. In February and March 2012, APA GasNet's three consultants used DGM estimates to produce MRP estimates ranging from a low of 6.18 per cent to a high of 9.56 per cent.²³

It would be unacceptable to PIAC if the estimated rate of return, which has such a significant impact on prices to consumers, is derived in large part from an approach based on a model that has little precedence in the regulatory process and is widely criticized for its highly variable results and sensitivity to input assumptions.

Recommendation 2

The AER reject the multi-model approach and adopt the Sharpe Lintner CAPM model as the foundation model to establish the return on equity.

3. Assessment of Comparative Risk

3.1 Some general principles

The assessment of risk is a key input into the AER's determination of the return on capital. The allowed rate of return objective in the NER, for example, states that the allowed rate of return for a network service provider is to be 'commensurate with the efficient financing costs of a

²¹ Australian Competition Tribunal, *Application by APA GasNet Australia (Operations) Pty Limited (No 2)*[2013] ACompT 8, 241(c).

²² Ibid, 267.

²³ Ibid 267. The Tribunal also noted that in the past, the DGM had produced results as low as 2 per cent.

benchmark efficient entity with a similar degree of risk'.²⁴ Similarly, the revenue and pricing principles (RPP) in both the National Electricity Law (NEL) and the National Gas Law (NGL), require an assessment of risks.²⁵

It is therefore essential that both the approach and the outcome of the rate of return estimation process be underpinned by a careful examination of the risks involved in providing the network services. More particularly, this will involve a careful consideration of the comparative risks of investing in a benchmark efficient NSP and investing in the market in general. Importantly, this is not the risk of investing in an individual NSP; it is the risk of investing in the regulated network industry as a whole. A second consideration is the *allocation of risk* between the NSPs and consumers.

The AER has also highlighted two important and inter-related principles to be taken into account in the estimation of the allowed rate of return. They are:

- risk should be allocated to the party best able to manage it, and consumers are generally not best placed; and
- the purpose of regulation of monopolies is to replicate the operation of the competitive market.²⁶

For example, a capital-intensive firm operating in a competitive market place has a strong incentive to minimise its cost of capital within prudential limits as the market-place rewards financial efficiency and penalises those whose cost of capital is above the efficient frontier firm. There is little ability for a firm to pass these higher costs on to their customers. However, the regulated NSP does not face these market constraints and it is the regulator who must impose the discipline of the market.

Consumers should not pay for risks that arise from poor management decisions or which can be readily managed by the NSP using prudent and efficient capital financing strategies and capital expenditure management.

This is one of the central aspects of assessing efficient costs on the basis of the efficient benchmark firm—rather than the individual firm and their circumstances. The allowed rate of return does not and should not compensate a NSP for poor governance and capital management or fund complex corporate structures and internal transfers; it should compensate only for the efficient financing costs of an efficient benchmark entity of similar risk.

In the past, however, there has been a strong focus on assessing risk from the perspective of the network to the neglect of proper consideration of risk in the broader market context. As a result, the overall NEO and NGO and the two key principles of monopoly regulation cited above have too often been side-lined in the many debates about the allowed rate of return.

²⁴ NER, cl 6.5.2 (c) and 6A.6.2 (c), NGR r 87 (3).

²⁵ The revenue and pricing principles are set out in section 7A of the NEL and rule 24 of the NGL. They include a number of principles including the principle that prices should reflect returns that are commensurate with the risks involved in providing the relevant services.

²⁶ See for example, AER, *Better Regulation, Draft Expenditure Forecast Assessment Guideline*, 2013, 24 and 16.

In addition, PIAC claims that one of the fundamental flaws of using models that rely on actual returns and/or dividends is that the outcomes of these models reflect the behaviour and circumstances of the past. That is, while they purport to reflect investor expectations for the future, the inputs are strongly influenced by recent events. For a monopoly business there is no competitive market pressure, and excess earnings or growth in dividend pay-outs are likely to reflect past regulatory decisions more than they reflect investors expecting high levels of reward for high risk. It is a circular argument²⁷ to define expected returns in the future (for an investor in long-term assets) based on short-term events in the past that do not reflect economic fundamentals.

In PIAC's view, the enhanced regulatory framework that Better Regulation represents will have little capacity to produce better outcomes in the long-term interests of consumers if it is based on continuation of the observed earnings by NSPs over the past few years. These observed earnings are a reflection of an over-generous regulatory allowance in the past, not the expectations of investors for the future.²⁸

The circular argument that particularly undermines the empirically based models such as the DGM, is an important issue in considering the most appropriate models/data for determining the efficient return on equity and return on debt for an efficient NSP, and will be discussed further in Sections 4 and 5.

3.2 The benchmark efficient entity

Alongside the assessment of risk, and more particularly, comparative risk, the allowed rate of return objective requires the AER to define the benchmark efficient firm. The benchmark efficient firm is essentially a conceptual entity. It does not, and should not attempt to replicate any specific firm but directs stakeholders to consider what the key features of an efficiently financed efficient benchmark entity would be and what is the appropriate level of revenue it should receive to ensure recovery of at least the efficient costs of providing the regulated network services.

The AER proposes to define the benchmark efficient entity as a 'pure play', regulated network energy business operating within Australia.²⁹ In effect, the benchmark efficient entity is an entity that provides only regulated energy services (being electricity transmission and distribution and gas electricity transmission and distribution) in Australia.

In practice, none of the private sector energy network businesses meet these criteria. For instance most NSPs have complex ownership structures with significant overseas components. PIAC considers, however, that this does not invalidate the use of a conceptual benchmark firm.

²⁷ By 'circular argument' PIAC means that (for example) the high earnings of a regulated business might be used as evidence that investors require a higher rate of return, leading to the regulator providing a high rate of return in the next determination. However, it could also mean that the regulator allowed too high a level of return in the current determination than was warranted, and as a result, the NSP's earnings increased irrespective of investor's requirements, or even the efficiency of the management. The share price and dividend payouts may rise as a result, so these are also 'contaminated' by the circularity between the regulator's decision and the business outcomes.

²⁸ Or at least, the observations do not reflect the expectations of long-term investors looking for safe investments generating reliable cash flows.

²⁹ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 47.

What it does mean is that in exercising its discretion, the AER needs to be aware of these conditions. For example, it is likely that foreign ownership (or part ownership) is likely to provide the firm with access to capital at a considerably lower rate than would be available to a stand-alone company.

3.3 Risk and the rate of return assessment

With specific reference to the rate of return assessment, PIAC considers that the evaluation of risk and, in particular, comparative risk, is most relevant to the following components of the rate of return assessment:

- the assessment of the equity beta value in the estimation of the return on equity;
- the assessment of the return on debt, including the following components:
 - credit rating of the benchmark efficient entity;
 - use of a third party 'fair value yield curve' to determine future debt obligations;
 - the term of the debt (i.e. the estimate of the average debt tenor in the portfolio);
 - ownership structures; and
 - the regulatory approach ('on the day', annual updating etc.).

A number of these components will also be examined in further detail in sections 4 and 5 of this submission.

PIAC also acknowledges that risk is a core component of the market risk premium (MRP), a main parameter in the cost of equity calculation in the various capital asset pricing models (CAPM). However, the purpose of the MRP is to capture overall market risk, or systematic risk, that cannot be diversified away.

Therefore, in terms of *relative risks*, the more important parameter in the return on equity assessment is the equity beta. In simple terms, the equity beta describes the *risk* of investing in a specific firm or industry (such as the industry of regulated network services) compared to the risk of investing in the market as a whole (i.e. a diversified portfolio).

PIAC also notes that many of the other models and data considered by the AER do not explicitly identify risks that are priced in the rate of return. Rather, they rely on observed data and forecast returns and therefore assume that risk is adequately captured in the observed data and need not be understood in its own right.³⁰ PIAC is not convinced of the validity of this assumption within the regulatory businesses as will be discussed in both Section 4 and 5.

Gearing level is also associated with investment risk. As a general principle, the higher the gearing the greater is the risk of default by a business. However, this relationship is complicated in the assessment of a regulated entity.³¹ For the purposes of the allowed rate of return, the AER proposes to set a gearing ratio for the efficient benchmark entity of 60 per cent debt financing, 40 per cent equity financing. Australian regulators have applied this ratio for some time.

³⁰ This includes, for example, the dividend growth model and also the Fama-French three-factor model (which the AER is proposing *not* to include in its assessment of the cost of equity as it fails to meet a minimum number of the assessment criteria).

³¹ For example, the features of the regulatory environment can have a significant impact on the forecast variability and sensitivity of cash flows. A revenue cap, for instance, provides some surety of cash flows to enable financing of debt without risk of default.

This is, however, a conservative assessment of gearing and most NSPs have experienced very solid cash flows and earnings growth at gearing levels higher than this (i.e. with a gearing ratio of 70 per cent or more) while maintaining credit ratings in the investment grade range of A- to B-investment. A higher gearing level reduces the overall cost of capital providing it does not lead to a downgrade in the businesses credit rating. In any event it is open to the individual NSP to choose if it wants to take on higher gearing and lower its overall cost of capital, but take on a notionally higher level of risk. The point here is that shareholders rather than consumers should bear this additional risk.

While these various aspects of risk will be discussed in Sections 4 and 5, in this section, PIAC will focus below on the specific review of risk, particularly *comparative risk*, as discussed in the AER's Draft RoR Explanatory Statement³² and the expert reports by Frontier Economics³³ and by McKenzie and Partington.³⁴

3.3.1 Frontier Economics report

PIAC considers that the final report by Frontier Economics (Frontier) provides a valuable overview of the risks facing an efficient benchmark NSP, of how the regulatory environment interacts with these risks and the types of actions a prudent NSP can reasonably take to mitigate these risks can modify their impact.

Frontier identified a total of 15 key risks that a 'generic regulated network in Australia' might be exposed to. The report states these risks as 'total risks' in the sense that 'they affect the variation of the firm's cash flows and returns.'³⁵

Frontier allocates these risks into two categories, 'business risks' and 'financial risks'³⁶ that are largely common to both regulated and unregulated businesses. Frontier Economics then considers the features of a regulated business that may either amplify or mitigate these risks. That is, Frontier Economics makes an assessment of the *comparative risk* between the regulated and unregulated firms. This approach also enables an assessment of how such risks can be mitigated by the business itself rather than passed fully onto consumers.³⁷

Frontier identified a total of 10 business risks and five financial risks that were relevant to the regulated energy networks. Out of the 10 business risks, a total of six were assessed as 'low', two as low-medium and one as 'medium' (input price risk). There were no business risks that were considered as high risk.³⁸

³² AER, above n 2, 33 – 47.

³³ Frontier Economics, *Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia: A report for the AER*, June 2013.

³⁴ McKenzie M and Partington G, *Report to the AER: Risk, Asset Pricing Models and WACC*, June, 2013.

³⁵ Frontier Economics, above n 33, 1.

³⁶ Ibid. Business risks are factors that affect the riskiness of the underlying assets of the firm and include demand, input prices, cost volume, supplier, inflation, competition, stranding and political/regulatory risk. Financial risks arise from how the business's activities are financed and include refinancing risk, interest rate reset, liquidity, default and financial counterparty.

³⁷ Ibid, 9.

³⁸ Ibid, Table 5, 65.

The picture was somewhat different for financial risks, with Frontier assessing two of the five as 'low', one 'low' for large networks and 'medium to high' for small networks and, one 'medium to high' and one 'medium'.³⁹ These medium+ criteria include liquidity risk, interest rate reset risk and refinancing risk.

However, as Frontier suggests, some of these risks can be managed in part by the NSP, through contracting (e.g. labour costs⁴⁰) or through hedging currency and interest rate exposures and similar risk management tools.⁴¹ For example, a NSP's refinancing and interest rate reset risk can be reduced by more efficiently managing their debt and equity portfolios. In practice, a number of NSPs have been undertaking restructuring of their capital portfolio and improving their financial position to approximate a benchmark efficient financed network service provider.⁴²

In addition, the changes in the methodology for estimating the allowed rate of return proposed by the AER in the Draft RoR Guideline, such as the use of a trailing average debt portfolio and annual updating of the return on debt (RoD), will reduce the risk of there being a significant difference between the regulated RoD and the actual RoD of an efficient NSP. It would be expected that under the new arrangements, Frontier's assessment of the financing risks facing the NSPs might well be adjusted towards the 'low to medium risk' category.

3.3.1.1 Risk of default – an outstanding issue

PIAC believes that one important element is not adequately addressed in the Frontier report. That element relates to the risk of default.

The Frontier report considers the risk of counterparty default (such as an insurer or hedge contract counterparty). However, the Frontier report does not examine the significant protections that NSPs have in terms of exposure to bad and doubtful debts from their primary customers, the energy retailers. Retailers have very stringent obligations with respect to the terms of payment to NSPs and the provision of bank guarantees (for retailers with lower credit rating).

In addition, the Retailer of Last Resort (RoLR) provisions in the NEM means that if a retailer goes into default in the NEM, the RoLR immediately takes over the defaulting retailer's customers and with this, the financial obligations to the NSP.⁴³ This provides the NSP and investors with further surety of the timeliness and adequacy of the NSP's cash flows.

Recommendation 3:

The AER take into account the additional protection that NSPs receive under the broader regulatory arrangements from the risk of default by their customers, the energy retailers.

³⁹

Ibid.

⁴⁰

Ibid, 67.

⁴¹

Ibid, 44-45.

⁴²

For example, InvestSMART reports favourably on both DUET ('Management is cleaning DUET up, making it more transparent and ensuring gearing and distributions are sustainable'; see InvestSMART issue dated 25/9/13 on DUET GROUP (DUE)) and Envestra Ltd ('Most funding [now] comes from retained earnings and the DRP rather than debt so gearing will fall over time. Envestra reported NPAT up 45%...', see InvestSMART issue dated 23/8/13 on ENVESTRA LIMITED (ENV)).

⁴³

The RoLR arrangements are designed to protect the wholesale energy markets, by arranging immediate transfer of customers from the defaulting retailer to the RoLR. However, this also protects the NSP.

Finally, the Frontier report highlights to PIAC two important outcomes that should have a direct bearing on the AER's assessment of the equity beta and return on debt:

- Compared to businesses generally, a prudent and efficient NSP is exposed to considerably lower business and financial risks in almost all areas of its business and this is well recognised by the investment community (see Section 3.3).
- A prudent and efficient NSP has many ways to mitigate the residual risks, and there is no reason to 'price' these risks into the rate of return.⁴⁴ To do so would mean that consumers rather than investors and management carry the cost of inefficient risk management and this is not an acceptable outcome for consumers.

The summary below of the McKenzie and Partington report provides further evidence that the NSPs occupy a unique position and represent a unique proposition for equity investors and debt providers. In other words, the NSPs are not in competition for funds from traders and short-term investors looking for quick returns. Rather the NSPs are seeking (or should be seeking) equity investors and debt providers who look for long-term value creation by investing in long-term assets with steady growth, revenues and cash flows.

3.3.2 McKenzie and Partington report

McKenzie and Partington provide a theoretical framework for considering risk in the context of the rate of return for a regulated efficient benchmark entity. The assessment of specific operational and business risks in the Frontier report can be usefully considered within this theoretical framework. A number of the key elements of this McKenzie and Partington framework are, therefore, set out below.

McKenzie and Partington make the important observation that 'in finance, however, risk means that future outcomes are not known with certainty'.⁴⁵ They observe:

The focus in finance is on the **risk of variability in the magnitude of future cash flows**, and, in some cases requires consideration of the possible states of the world when those cash flows are to be received. **States of the world can matter in that a high cash payoff in a good state of the world is good, but a high cash payoff in a bad state of the world may be better.** If so, it is not just the unknown magnitude of the cash flows that matters, but also the relationship between the risk and the various possible states of nature (booms and busts). These risks matter to investors because they **create uncertainty about future wealth and so future consumption.**⁴⁶ [PIAC emphasis]

With specific reference to risks to be compensated for in the weighted average cost of capital (WACC), McKenzie and Partington state three central principles for estimating the required return on an investment by a company. They are:

- it should reflect the risks for which investors require compensation;

⁴⁴ PIAC recognises that there are costs associated with prudent risk management (e.g, for insurance or hedging). However, these should be captured in other parts of the regulatory determination, such as in allowed operating costs.

⁴⁵ McKenzie and Partington, 2013, above n 34, 4.

⁴⁶ Ibid.

- it should be forward-looking since it is to apply to the cash flows of the future; and
- it should reflect the opportunity cost of the investment (compared to the investment in the capital market directly).⁴⁷

Arising from this, PIAC believes it is important to assess risk from the perspective of the *expectations of investors who choose to invest in regulated long-life asset businesses* (rather than the management of the company who may have other incentives such as short-term profit growth). The expectations of investors in long-term assets are likely to be quite different and certainly more modest and realistic than the expectations of a short-term trader. As the President and CEO of the Canadian Pension Plan Investment Board (CCPIB) said at a recent conference in Australia:

I encourage Australia to remain long-term focused, which will guarantee that you will remain an ideal investment partner for CPPIB. Our mandate is to scour the globe for solid investment opportunities that offer the best long-term, risk-adjusted returns to our Canadian planholders. My job as CEO is to guide that effort...around the need for a return to business fundamentals and long-term value creation – ‘capitalism for the long term’ as it has been aptly named.⁴⁸

McKenzie and Partington further highlight that an important issue in the AER’s assessment process is to consider what risks are ‘priced’⁴⁹ into the investors’ views of the appropriate rate of return for a NSP. PIAC would also ask, how is this outcome to be compared to the risks priced into expected returns for other investments and/or the market as a whole?

There are several ways to look at this and McKenzie and Partington conduct a comprehensive analysis of the relationship between risk (specifically, non-systematic risk) and the WACC, the cost of equity and the cost of debt.⁵⁰ PIAC would generally support this analysis.

3.3.3 Other assessments of risks for regulated networks

3.3.3.1 Econometric assessment of the equity beta

In the Sharpe-Lintner CAPM framework for the cost of equity, this stability of cash flows and overall resilience of earnings (for a benchmark efficient NSP) should translate to a significantly lower equity beta. In this context it is also interesting to note the findings of a recent empirical study on equity beta estimates by SFG Consulting. In this study, SFG concludes:

The mean re-gearred CAPM beta estimate for Australian firms [energy utility firms] is 0.60 and the estimate for United States firms is 0.88. A combined sample for both markets has an average of 0.84. The corresponding intervals are 0.37 to 0.83 for Australian-listed stocks, 0.82 to 0.93 for U.S.-listed stocks and 0.78-0.90 for the combined sample.⁵¹

SFG then suggests that the AER use the combined sample of Australian and US stocks to establish an equity beta for the Australian utilities, arguing that the combined data provides more

⁴⁷ Ibid, 5.

⁴⁸ Mark Wiseman, President and CEO CPP Investment Board, *Taking the Long View: Canada and Australia in the 21st century*, Address to the Canadian- Australian Chamber of Commerce, March 2013, 9.

⁴⁹ McKenzie and Partington, above n 34, 4.

⁵⁰ Ibid. See particularly 8 – 16.

⁵¹ SFG Consulting, *Regression-based estimates of risk parameters for the benchmark firm*, 24 June 2013, 13.

data points and therefore more reliability in the estimates. There is, however, little discussion on the difficulties of drawing from two different equity markets with two different economic regulatory regimes to determine an average of the equity betas. This is particularly important given that the combined sample result is weighted so strongly towards the US sample result (the US sample represents 86 per cent of the total number of sampled firms).⁵²

As a result, PIAC strongly disagrees with the averaging proposal by SFG. The benchmark efficient entity is clearly defined as a pure play Australian network service provider. The combining of information from just *one other* jurisdiction (why not the UK or NZ or Canada?) is to break this important link between the modelling of beta and the concept of the efficient benchmark firm as defined by the AER. Moreover, if the equity beta was averaged across countries, then why not average other parameters in the CAPM model, such as the fair value curve in the cost of debt, which may well lower the cost of debt compared to an Australian only sample.

This is not to say that the US data should not be considered. It should be considered, but not alone and not without careful examination of equity betas calculated for other countries. It should be based on a clear assessment of how the different regulatory frameworks and other factors may impact on the validity of comparisons and, more particularly, on the *validity of any averaging process*. For example, countries such as the UK whose incentive based regulatory regime is closer to Australia's may be more relevant than the US study results.

3.3.3.2 Assessment of risk by the investment community

In addition to the econometric analysis, PIAC proposes that it is valuable to look at what investment advisors say to their clients about investing in energy utility stocks, and what the NSPs say to investors when seeking additional equity and debt from the investment community.

PIAC summarises a number of these two perspectives (which are really just two sides of the same coin) in Table 1 and Table 2 below.

What is clear from an examination of this sample is that investors see investment in utilities as a 'safe haven' with sound returns and low risks, and this agrees with the way the NSPs present themselves to investors. Of particular interest in the context of the analysis of the CAPM framework is the focus by both investors and NSPs on the reliable and predictable cash flows of both the electricity and gas NSPs driven by both the relatively stable demand and, more importantly, by the regulatory framework that 'guarantees' revenues.

When comparing commentary in the two tables below with the statement by McKenzie and Partington that the focus in finance is on the variability in cash flows and that a high cash payoff in a bad state of the world is better (as above),⁵³ it is clear that a prudent and efficient benchmark NSP would be significantly less of an investment risk than an average market investment and that this would be reflected in the price the NSP is required to pay to both equity and debt providers. The AER's approach to the cost of debt also raises questions about the reliance on a third-party fair value yield curve that includes a range of businesses with different risk profiles (generally

⁵² Ibid, Table 2. There is a sample of 9 Australian firms and 56 U.S. firms in the regression analyses.

⁵³ Ibid, 4.

higher) than the monopoly regulated NSPs. These issues will be discussed further in Sections 4 and 5.

Recommendation 4

The AER ensure that in assessing the equity beta (and other risk related components) there is explicit recognition that the changes to the approach to estimating return on debt, significantly reduce the financing risks for investors in the NSP. Historical analysis of excess returns should be tempered by acknowledgement of this significant change.

Recommendation 5

In evaluating the NSPs’ arguments against the AER’s new framework, the AER should take into account, the fact that the investment community considers NSPs provide sturdy yields and predictable cash flows in a stable regulatory environment. The AER should also take into account the manner in which NSPs promote themselves to investors in like vein.

Table 1: Investors’ perspectives:

| Company | Commentary on Investment in Utilities | Source |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Regulated Power Companies Generally | <ul style="list-style-type: none"> • The sturdy yields and relatively low risks to be found in the regulated utility sector have made stocks such as Duet Group and Spark Infrastructure popular in the current uncertain economic environment. • We believe regulation risk is overblown in the [power] sector...the rules will remain supportive for the sector for investment and for returns. [quoting RBC Capital Markets utilities analyst]. • Regulated network owners are also protected from the full effects of weak demand because of the way their revenues are set, but regulators in five-year periods. | ‘Power companies deliver solid returns’, Angela Macdonald-Smith Energy & Resource Writer, <i>The Australian Financial Review</i> , 12 September 2013 Print Edition. |
| Dampier-Bunbury Natural Gas Pipeline | ...most companies do not have the luxury of knowing what next year’s revenues are going to be, and it is this unique feature of regulated assets which sets them apart and makes them so popular for professional investors and super funds. | Gavin Madison, ‘Investing in Infrastructure – Part 1’ <i>The Wire</i> FIIG Fixed Income Specialists, 4/7/2012. |
| Australian Infrastructure Investment general | From our perspective, as a global investor, we rank the U.K, Australia and Chile at the top of our list of countries with the most comprehensive, stable and attractive [economic and regulatory] | David Denison, President & CEO, Canadian Pension Plan Investment Board, ‘Winning Conditions to Foster and Attract Long-Term Investing’, Speech to the Canada- |

| | | |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | frameworks for infrastructure investment. | United Kingdom Chamber of Commerce, London, 15 May, 2012, 8. http://www.cppib.com/content/dam/cppib/common |
| Regulated network businesses | All rated NSPs have a business risk profile of 'excellent', compared with most industrial corporates in Australia which are characteristically rated as 'satisfactory'. This is a result of the 'supportive regulatory framework [and] predictable cash flow'. | Kanangra, <i>Credit Ratings for Regulated Energy Network Services Businesses</i> , June 2013, 14, 18. |

Table 2: NSPs' representations to equity and debt providers:

| Company | Advice to Current & Potential Investors | Source |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APA | Long term business, with long life assets and secure cash flows from contracts and regulatory arrangements. | Presentation by Mick McCormack, CEO and Managing Director, APA Group, 'Benefits of APA's networked portfolio', to the Macquarie Australia Conference, 2 May 2013. http://apa.com.au/media/210158/02052013%20macq%20conference%20%20mmccormack.pdf |
| APIA | The financial institutions that supply capital to pipeline infrastructure accept that pipelines are low-risk investments. These institutions are unlikely to finance speculative investments. | APIA website/Gas Transmission Investment http://www.apia.net.au/wp-content/uploads/2009/10/factsheet6-Investment-110225.pdf . |
| DUET | <ul style="list-style-type: none"> Regulated and contracted revenue providing predictable cash flow long economic life assets; stable and predictable earnings and cash flows, strong cash yields, growth opportunities through industry consolidation, privatisation and restructuring, Payment of stable and predictable distributions to security holders | <ul style="list-style-type: none"> DUET, 2013 <i>Annual Report</i>, 3. Duet Group Fact Sheet, 1. http://www.duet.net.au/Investor-centre/Investor-guides/Tabs/Fact-sheet/fact-sheet.aspx Ibid |
| Envestra | Envestra offers investors a stable and attractive investment... Reasons to invest: Cashflows are highly predictable and grow in line with customer connections and annual tariff increases supporting sustainable | Envestra Ltd web-site http://www.envestra.com.au/investor-centre/ |

| | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | dividends to shareholders over the long-term. | |
| SP Ausnet | SP AusNet maintains a well-diversified debt maturity profile together with well-diversified sources of debt. This, together with a strong investment grade credit rating ... allows SP AusNet ready access to debt markets both in Australia and off-shore. | SP AusNet, ASX Release, 10 December 2012 |
| Spark Infrastructure | Current investments are generating reliable cashflows, possess strong balance sheets and consistently outperform regulatory benchmarks. | Investor Presentation: 'FY 2012 results – February 2013, Yield, Growth and Quality'. See in particular, 'Investment Proposition, Yield plus Growth based on Quality', 4. http://sparkinfrastructure.com/static/files/assets/2d07124f/FY_2012_-_Investor_Presentation.pdf |

4. Return on return and return on equity

4.1 Overall rate of return

Section 3 has already considered the risk factors that might influence the expectations of equity and debt investors for the rate or return required for investment in an efficient NSP.

After considering all the material provided on a wide range of risks, PIAC (and others) have concluded that the business and financial risks facing a regulated monopoly service provider such as a NSP are significantly less than the risks of investment in the market as a whole. The favourable and predictable regulatory environment is a major factor in limiting the risk exposures of the NSPs and this should be taken into account when calculating the allowed rate of return.

As stated previously, the allowed rate of return must be determined such that it achieves the allowed rate of return objective.⁵⁴ This means that the each parameter in the rate of return estimation must take as its starting point that the networks are (relatively) low risk businesses.

4.1.1 The limits to a top-down forecast of the overall rate of return

The approach taken by the AER to estimating the overall rate of return could be characterised as a 'bottom up' approach rather than a 'top-down' approach. This reflects:

- the difficulty in reliably estimating the overall expected rate of return as a top down calculation; and
- the requirements under the rules to apply a nominal post-tax framework; as well the weighted average cost of capital (WACC);⁵⁵ this is calculated from a 'point estimate of the return on debt and the return on equity'.⁵⁶

⁵⁴ NER, cl 6.5.2(b) and 6A.6.2(b); NGR r 87(2).

⁵⁵ NER, cl 6.5.2(d)(2) and 6A.6.2(d)(2); NGR r 87(4).

Notwithstanding the problems with measuring the overall rate of return, PIAC considers that it is most important that there is some means of 'sense checking' the aggregate figure given the number of assumptions that feed into each of the component elements of the WACC including the gearing ratio (i.e. the respective weights given to the rate of debt and the rate of equity in the overall WACC).

The AER identifies two approaches to obtaining a direct assessment of the reasonableness of the calculated WACC. They are the Regulatory Asset Base (RAB) acquisition price and business trading multiples. Because of the limitations of both of these measures, however, the AER proposes to use them as checks on the 'reasonableness' of the rate or return parameters calculated in the primary model(s) and not in a determinative way.

PIAC agrees with the AER and considers that it is appropriate to use these measures with caution as there are many factors influencing a RAB acquisition.

The greatest value of these types of measures in assessing the overall rate is that they may provide some sense of whether the market considers the business is good value, i.e. that it has good profits and cash flows into the future. If this market evaluation is positive, then it is perhaps an indication that the AER may have approved too much for the NSPs' capital expenditure and rate of return.

For example, PIAC notes that some observations of RAB multiples appear to suggest that the regulator's decisions may have been over-generous in the past at the expense of the long-term interests of consumers. PIAC accepts the importance to consumers of having financially sustainable NSPs. However, when a NSP can reject a purchase offer at a RAB multiple of 1.4 claiming that it 'undervalued the company,' it indicates that the NSP is very confident of a continued favourable regulatory environment and returns in the future.⁵⁷

Other important measures that can be used as a 'reasonableness' test are direct measures of the profitability level for each NSP. For example, the AER already produces a comparative performance report for Victorian electricity and gas NSPs that includes a comparison of returns on the NSPs' regulated asset bases (earnings before tax) with the allowed regulatory returns. In the most recent report, (using 2010 data), earnings were consistently above the allowed real rate of return by approximately 1 per cent to approximately 3.5 per cent.⁵⁸

PIAC and consumers would be extremely disappointed if an over-emphasis on incorporating various models, despite significant doubts about their reliability, into the AER's final point estimates of the return on equity and debt saw the overall rate of return pushed beyond what is reasonable or efficient. In addition to having a deleterious effect on the prices paid by consumers, this outcome would seriously call into question the value to consumers of this aspect of the Better Regulation process and the commitment they have made to the program. The decision to invest

⁵⁶ AER, *Explanatory Statement, Draft RoR Guidelines*, above n 2, 54.

⁵⁷ In September 2013, APA made an unsolicited all share merger to Envestra equivalent to a RAB multiple of about 1.4. This was rejected by Envestra as 'significantly undervaluing the group'. *Business Spectator*, 'ACCC gives APA, Envestra merger green light', 28/8/13.

⁵⁸ AER, *Victorian Electricity Distribution Network Service Providers, Annual Performance Report 2010, 2012, 10*.

scarce resources in this manner was influenced by PIAC's view that a reasonable rate of return, that truly reflected the risk faced by regulated businesses, was a distinct possibility.

Recommendation 6

The AER should further develop methodologies for assessing the overall rate of return, particularly given the potential for the cumulative impact of models and data used to 'inform' or guide the Sharpe-Lintner CAPM and the return on debt methodology which collectively are likely to bias upwards the overall rate of return.

4.1.2 Overview of the AER's approach to setting the overall rate of return (WACC)

The AER's proposed approach to estimating the overall rate of return is set out below:

- use a nominal post-tax vanilla WACC consistent with the estimate of the value of imputation credits;
- for each component of the WACC formula, the AER proposes to use ranges, point estimates and point estimates within ranges; this includes the overall rate of return, return on equity, return on debt, input parameters and evidentiary material;
- the overall rate of return will be assessed using reasonableness checks; these will include RAB acquisition and trading multiples;
- the WACC calculation will include two separate terms; a 7-year term for return on debt and a 10-year term for return on equity;⁵⁹ and
- the rate of return on debt will be updated annually resulting in an annual update of the overall rate of return, however, the return on equity will be updated only once at the start of the regulatory period.⁶⁰

PIAC considers that the AER's proposed approach complies with the rules, which state that in determining the allowed rate of return, regard must be had to 'relevant estimation methods, financial models, market data and other evidence.'⁶¹

Having conducted its assessment of the various estimation methods, financial models and market data, the rules provide sufficient flexibility for the AER to use its discretion to determine the most appropriate combinations of approaches, models and data that will enable the AER to best achieve the allowed rate of return objective. These will then be included in the final RoR Guideline.

In PIAC's view, the rules do not require the AER to provide *all* the models considered in the initial reviews as options in the final Guideline but only those options that, in the opinion of the AER, best achieve the allowed rate of return. PIAC considers at a high level, the AER's proposed approach achieves this outcome while providing transparency and some certainty to stakeholders about how they will come to a determination on the allowed rate of return.

⁵⁹ The NER and NGR specify the 'desirability' of an approach that leads to the 'consistent application of any estimates of financial parameters that are common to the return on equity and return on debt (e.g. see NER cl 6.5.2(e)(2) and 6A.6.2(e)(2); NGR r 87(5)(b). However, because the AER's new approach uses the risk free rate only for the cost of equity, the term of the WACC can be different.

⁶⁰ Adapted from AER, *Explanatory Statement, Draft RoR Guidelines*, above n 2, 52.

⁶¹ NER cl 6.5.2(e)(1) and 6A.6.2(e)(1); NGR r 87(5)(a).

For example, the AER's proposed 'foundation model' for the return on equity, the Sharpe-Lintner CAPM, has an established theoretical and empirical base, is relatively transparent and provides some predictability in outcomes. It also relies on an explicit assessment of risk, and most particularly, *the risk of the industry relative to the general market risk*.

PIAC considers this to be an important benefit of the asset pricing models (including the Sharpe-Lintner CAPM) over some other models that do not explicitly address risk—noting again that is it comparative risk that ties the financial modelling to the concept of relative risk expressed through the allowed rate of return objective and the benchmark efficient entity.

The following section 4.2 sets out PIAC's understanding of the AER's proposed approach to one component of the rate of return and that is the return on equity. Section 4.3 highlights a number of issues with the proposed approach.

4.2 The AER's proposed approach to estimating the return on equity

The AER outlines its proposed approach as summarised below:⁶²

- it has regard to a broad range of relevant material;
- the relevant material will be assessed against the evaluation criteria set out in the RoR Guideline;
- the Sharpe-Lintner CAPM will be used informatively, rather than determinately, to provide the starting point estimate and range for the final return on equity;
- input parameters for the Sharpe-Lintner CAPM will be informed by the Black CAPM and dividend growth model (DGM) estimates. The AER will also have regard to other theoretical and empirical evidence in assessing the CAPM parameters;
- regard will be had to other information to determine the final point estimate of the return on equity from within the range set by the Sharpe-Lintner CAPM. This will include an alternative implementation of the Sharpe-Lintner CAPM (the Wright CAPM) and estimates of return on equity from valuation reports, brokers and other regulators; and
- the final return on equity estimate will reflect either the foundation model point estimate, or an alternative value that is a multiple of 24 basis points.

4.3 PIAC's response to the AER's approach

PIAC understands that the AEMC's amendments to the NER and NGR⁶³ require the AER to consider multiple approaches to determine the cost of equity reflecting the fact that there is significant uncertainty about the performance of all the measures under different conditions. PIAC also recognises that the AER has endeavoured to respond to this requirement while providing some certainty and transparency to stakeholders.

The AER proposes to do this through the process outlined above. That is, the AER will use the Sharpe-Lintner CAPM model to provide the foundation of the analysis and define the boundaries of the possible outcomes for the overall return on equity. The Black CAPM and DGM will be used to inform the input parameters, while the Wright CAPM and other estimates will be used to assess the overall cost of equity that emerges from the initial process.

⁶² AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 59.

⁶³ NER cl 6.5.2(e) and 6A.6.2(e), NGR r 87(5).

PIAC agrees with the importance of establishing a set of evaluation criteria and a clear framework for decision-making. In particular, PIAC is pleased that in establishing this framework, the AER has *not* adopted the ‘multi-model’ approach⁶⁴ that has been suggested by some in response to the AEMC’s rule changes. PIAC has previously argued strongly that this type of approach would open the door for gaming and disputes between the NSPs and the AER, leaving consumers marginalised in the process. The current ‘multi-model’ approach that has been proposed by the ENA provides a real example of how the process of allowing NSPs to combine models in various ways can add complexity, minimise transparency and lead to unacceptable outcomes for consumers. More specifically, the ENA proposal places a heavy reliance, both directly and indirectly, on the DGM (with several variations) even though there is wide-spread recognition that the DGM outputs are very sensitive to input assumptions, show a wide degree of dispersion without any theoretical basis for this and have demonstrated a bias towards overestimating the return on equity. Although the basic DGM model is relatively intuitive and simplistic, the variations of the DGM rapidly become more abstract and complex. (see also the discussion of the DGM in Section 4.3.2).

PIAC also agrees with the use of the Sharpe-Lintner CAPM as the foundation model. The Sharpe-Lintner CAPM has limitations, however, these limitations are well known and therefore allowances can be made for these in a systematic and transparent way. The model has a solid theoretical base and best fits the criteria set out by the AER. It is well established as the principal model used by regulators in many jurisdictions to assess the cost of equity.

It is also a model that explicitly identifies and differentiates two types of risk, systematic risk (the risk inherent in the entire market) and non-systematic risk, that is, risk that is specific to the relevant business or industry.

It is this explicit analysis of risk that so closely links the Sharpe-Lintner CAPM to the allowed rate of return objective. The allowed rate of return objective requires the AER to set a rate of return commensurate with the efficient financing costs of a benchmark efficient entity with a *similar degree of risk*.⁶⁵ Other models used to estimate the return on equity don’t explicitly deal with comparative risk⁶⁶ and therefore have limited application to the regulatory process that requires return on equity assessment for a regulated monopoly business.

The difficulty PIAC perceives with the AER’s proposed approach is the ‘role’ it gives to these other models and other information sources that are less reliable and satisfy fewer of the AER’s criteria, to ‘inform’ the outcomes of the Sharpe-Lintner CAPM parameters and overall return on equity estimation.

⁶⁴ Under the ‘multi-model’ approach the AER would set out 3 or 4 different modeling approaches in the Guideline and the NSP could select its preferred mix of models, including weighting of different models, one for its initial regulatory proposal from the outputs (noting that it is not bound by any of the approaches set out in the Guideline, although it would be considerably more difficult to adopt an approach that was not included in the Guideline as the onus would be on the NSP to put forward an explanation for not complying with Guideline. See NER cl S6.1.3 and S6A.1.3(4)(vi), NGR r 72 (1)(g).

⁶⁵ NER cl 6.5.2 (c), 6A.6.2 (c); NGR r 87 (3).

⁶⁶ This includes the Fama-French and DGM models which are not asset pricing models and do not explicitly identify the risks that are priced (see McKenzie and Partington, above n 34, 3). In these models, the risk is inferred, that is, it is assumed the dividend growth (for example) captures the relative component of risk. However, PIAC would argue that making this assumption is a dangerous basis for setting the regulatory return on equity and provides no insight for the assessment of other parameters in the overall return on equity or individual firm/industry risk.

PIAC is not convinced that informing the outputs of the Sharpe-Lintner CAPM will lead to better outcomes as defined by the rate of return objectives in the NEL and NGO, given the many limitations of these alternative models, which the AER itself has so amply demonstrated in the Draft RoR Explanatory Statement. It is more than likely that these alternative approaches will add noise rather than useful information to the process. In PIAC's view, the Draft RoR Guideline does not provide sufficient indication that it will use these additional models with the discretion warranted by their relative weakness compared to the Sharpe-Lintner CAPM. A number of these issues are discussed below.

Recommendation 7

The AER reconsider how it applies the various alternative models in the overall framework for estimating the return on equity. The AER's own analysis indicates that a number of the models used to 'inform' or guide the decision are highly sensitive to assumptions and can generate volatile and conflicting results. Consumers should not be exposed to the risks of unstable models.

Recommendation 8

The AER ensure that the final RoR Guidelines are explicit about the limitations of alternative models to determine the cost of equity. The RoR Guideline should also eliminate the ability of NSPs to choose between these less satisfactory models according to which provides the higher rate of return at a particular time.

4.3.1 The Black CAPM & Equity Beta

The AER is proposing to use the Black CAPM to 'inform foundation model parameter estimates (the equity beta)'.⁶⁷

The Black CAPM is distinguished from the Sharpe-Lintner CAPM largely because it proposes a 'flatter' relationship between the equity beta and the MRP, that is, the slope of the estimated risk-adjusted returns is flatter than the Sharpe-Lintner CAPM.

Relevantly, an industry or business that has a lower risk profile than the average market risk (as captured in the MRP) will, using the Black CAPM, have the equity beta increased (towards 1) relative to the equity beta calculations derived from the standard Sharpe-Lintner CAPM model.

The discussion by the AER on the strengths and weaknesses of the Black CAPM in the Draft RoR Explanatory Statement also draws on the work of McKenzie and Partington. Together, they indicate that there are substantial practical concerns with the Black CAPM that precludes its use in providing a 'direct estimate of the return on equity for the benchmark efficient entity or for the market'.⁶⁸ However, notwithstanding these problems, the AER is proposing to use the Black CAPM to 'inform' the selection of the equity beta in large part because the Black CAPM has some 'theoretical and 'empirical' support'.⁶⁹

⁶⁷ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, p 62.

⁶⁸ *Ibid*, 196.

⁶⁹ *Ibid*.

PIAC considers that this approach must inevitably lead to a bias towards determinations that are at the top end of the range of possible outcomes for equity beta from the Sharpe-Lintner CAPM. For example, suppose statistical analysis and other data lead to the conclusion that the Sharpe-Lintner CAPM equity beta is in the range of 0.3 to 0.7. By including the Black CAPM as 'informative' for the purposes of equity beta assessments, the AER will be much more likely to determine that the point estimate equity beta is closer to 0.7 than to the mean or median of the statistical analysis and other information used in the original Sharpe-Lintner CAPM modelling.

Recommendation 9

The final RoR Guideline limit any in-built bias and make clear that the Black CAPM is just one of the various measures of equity beta that has no special role in setting the quantum of the equity beta outcomes. The use of the Black CAPM should be strictly limited to a qualitative assessment of the direction of the equity beta.

4.3.2 The Dividend Growth Model (DGM) & MRP

The AER is proposing that the DGM is used to inform 'the range and point estimate of the MRP', although the AER also notes that it could be used 'directionally' for the overall return on equity.⁷⁰

The AER proposes to use the DGM in this way to reflect the fact that the DGM meets 'some of the [assessment] criteria'; it is well grounded in economic theory, has some empirical support, is relatively simple to implement and is widely used by academics, market practitioners and economic regulators.⁷¹

However, the AER also notes that the DGM models (and there are a number of variations on the basic DGM model of different complexities as noted above) are sensitive to input errors and assumptions. The DGM may, therefore, generate estimates of the overall return on equity for the benchmark efficient entity that are implausible. This is because the DGM models 'provide estimates of the return on equity for the benchmark efficient entity that exceed the return on the market determined by the same model.'⁷²

The AER concludes that the sample of listed network businesses in Australia is too small (five utilities) –making the results of the DGM even more volatile.

PIAC agrees with this observation that the DGM outputs are implausible for determining the overall return on equity for the benchmark efficient entity (that is for an efficient network business). It defies all the information gained from empirical, econometric risk analyses and data from market participants, that the regulated energy utilities sector has a higher risk than the market as a whole. The result indicates that the DGM should not be considered in any way as input into the AER's decisions on the return on equity for the efficient benchmark NSP.

PIAC suggests that the results of the AER's analysis may also reflect the fact that in a small population of NSPs, the observed returns may be influenced by the inefficient behaviours of a number of the sample members with respect to capital management and dividend policies.

⁷⁰ Ibid, 195.

⁷¹ Ibid.

⁷² Ibid.

Certainly, a number of NSPs were severely criticised by rating agencies for their capital management policies during the 2008-2009 period,⁷³ a period which has produced the most anomalous results as demonstrated in the AER's analysis of the DGM.⁷⁴

As mentioned previously, the use of actual data, particularly when there is a small sample, also raises the problem of 'circularity'. That is, excess historical returns generated by overly generous regulatory allowances in the past will become part of the data set used to infer in the DGM analysis the future growth path of dividends and 'expected' returns.

PIAC summarises these positions above, as follows:

- the benchmark efficient entity is a conceptual entity rather than an actual entity. Using actual data on NSPs' returns to estimate a parameter for a conceptual entity requires that the actual NSPs used in the sample represent the efficient financing of an efficient business. This level of efficiency has not been established for all the entities in the sample;
- more particularly, the investor community and credit rating companies have previously criticised a number of the utilities in the DGM sample for their relatively high dividend payout policy which, in turn, reduced the availability of retained earnings to fund growth; and⁷⁵
- the use of historical returns to estimate the required rate of return for a regulated entity ignores the fact that the returns to businesses were set by the regulator in the first place, not by the competitive market place or by investor demand. There is considerable evidence that in the past, the regulator set returns at a level above those required by an efficient network business and may have resulted in inefficiency in the networks financing and operations. This in turn can distort the simple market metrics used by DGM and similar models, to project future earnings and dividend growth.

Recommendation 10

The AER should ensure that its approach recognises this circularity issue, such that past generous regulatory allowances do not lead to future regulatory allowances exceeding the risk adjusted efficient return on equity.

⁷³ For example, see Standard & Poors Press Release, 'Envestra Outlook Revised To Negative on Aggressive Financing'. The press release states that the ratings outlook was revised to negative from stable and that 'This reflects deterioration in EnVic's (a subsidiary of Envestra Ltd) financial profile, the group's unchanged aggressive approach of using debt to fund its growth while maintaining shareholder returns, and the lack of certainty over its ability to improve its creditworthiness commensurate with the 'BBB-' rating'. The press release was released to the ASX by Envestra on 13 August 2008.

⁷⁴ See for instance, AER, Explanatory Statement, Draft RoR Guideline, Figure H.9 and H.10, 223-224.

⁷⁵ For example, Envestra Ltd had been issuing high dividends, and increased gearing in the years just prior to the GFC under its regulated revenue allowances. As a result its credit rating was downgraded. An extensive reform of its capital management followed in 2009/10 and dividends were reduced while earnings increased. The DGM model appears to interpret this as the market perceiving that the NSP had a high intrinsic risk in 2009 but now a low intrinsic risk by 2013. However, it was not the risk of the industry that changed, but the individual management re-focusing on efficient financing policies. DUET and others faced similar issues. For example, in May 2013 Standard & Poor upgraded Envestra's credit rating to BBB with stable outlook. The Managing Director of Envestra stated 'The upgrade reflects in part the Company's strategy of the past few years of reducing gearing and retaining funds to assets the financing of its substantial capital expenditure program'. Envestra Media Release, 24 May 2013.

As noted above, the AER's own analysis leads it to the position that it will not use the DGM for assessing the cost of equity for the regulated network industry.

However, the AER proposes to use the 'two-stage DGM' as an input into *assessing the return on equity of the market as a whole*⁷⁶ and, therefore, by simple deduction, the MRP.

In using the DGM to evaluate the overall market returns, the AER notes that the DGM will be calculated using information from 200 companies that will provide more stable estimates than network only companies.⁷⁷ More generally, the AER considers that 'they are still useful models of the rate of return on account of their solid theoretical foundation and their relative simplicity and transparency'.⁷⁸

The AER's preliminary analysis indicates that using the two-stage DGM results in an average return on equity for the total market of 11.0 per cent for the period January 2006 to June 2013. This is higher than current estimates based on a six per cent MRP and a risk free rate of around 3.5 per cent giving a total nominal market cost of equity (nominal) of around 9.5 per cent.⁷⁹

This difference is of concern to PIAC, and requires further investigation before the DGM becomes embedded in the regulatory determination process—even when this use is restricted to the overall rate of return through the MRP. In particular, even with a larger sample, the DGM remains overly sensitive to input assumptions on dividend and GDP growth, terminal values (included in some versions of the DGM) and other 'adjustment' factors.

PIAC notes for instance, that the figure of 11 per cent for the DGM return on equity includes a number of adjustments for expected inflation and, more particularly, the need to forecast an expected dividend growth path by adjusting the GDP growth path by some factor that is still under dispute but may be in the order of 1, 1.5 or 2 per cent. The 11 per cent figure (cited above) for instance, includes an adjustment of 1 per cent to allow for the difference between expected GDP growth and dividend growth.⁸⁰

The combination of extreme sensitivity to input assumptions and the need to 'adjust' the outputs in the way described previously (with a great deal of uncertainty about these adjustments) suggests that the DGM will consistently bias the cost of equity upwards. As a matter of good regulatory practice, therefore, the DGM should be used with a great deal of caution. If the application of the DGM by a NSP or by the AER is likely to drive even greater litigation by the parties, an outcome that marginalises consumers, then the DGM should not play any significant role at all in the regulatory assessment of the return on equity.

⁷⁶ AER, above n 2, 220.

⁷⁷ Ibid, 225.

⁷⁸ Ibid, 220.

⁷⁹ See for instance, AER, *Access Arrangement final decision, Envestra Ltd 2013-17, Part 1*, March 2013, Table 5.1, 30. The nominal post-tax cost of equity for Envestra was adjusted by the equity beta of 0.8 per cent, making a final cost of equity allowance of 8.33 per cent. The AER also notes that Envestra's rate of return is similar to the rates determined by the AER over the past year (2012-2013); *ibid*, 30.

⁸⁰ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 221. Given the history of these 'adjustment factors', PIAC suggests that if the AER was to use the DGM, this adjustment factor would become another area of Tribunal appeal.

PIAC agrees with the conclusions of McKenzie and Partington in their February 2012 supplementary report, when they state:

We would only use implied cost of capital estimates, such as those derived from the dividend growth model as a reasonableness check and even then we would be circumspect in our use of such models.⁸¹

In the recent appeal by GasNet Australia, the Australian Competition Tribunal (Tribunal) usefully summarised the evidence previously provided by the AER in the 2012 GasNet Draft Determination. The evidence further adds to PIAC's concerns with the AER's current proposal in the Draft Guideline to use the DGM as input into the return on equity and MRP.

The Tribunal's decision reported that the AER had found on examination of GasNet's proposal to use the DGM, that (inter alia):

- estimates of historical excess returns ranging from 4.9 per cent to 6.1 per cent if using the arithmetic mean, and from 3.0 per cent to 4.7 per cent if using the geometric mean (which is generally preferred in this type of analysis).
- surveys of market practitioners, which consistently supported a 6 per cent as the most commonly adopted value for the MRP;
- advice of the AER's consultants, which supported an estimate of 6 per cent;
- recent decisions of other Australian regulators, which also supported a 6 per cent estimate;
- results from using 'forward-looking' estimates, and which were assessed as yielding 'highly variable results and were subject to significant limitations':
 - DGM estimates ranging from 5.9 per cent to 8.4 per cent;
 - implied volatility estimates indicating an MRP *below* its historical average;⁸² and
- a 'reasonableness' test (in the Final Determination) which indicated that regulated assets have been generally sold at a premium to the value of the regulated asset base, indicating that the MRP and the overall cost of equity was therefore reasonable from an investor perspective.⁸³

The AER had also argued that while they had carefully considered the DGM findings, they did not include the results of the DGM analysis as a factor in their final decision on the MRP. The Tribunal agreed that the AER had conducted an appropriate investigation of the DGM before putting the DGM outputs aside⁸⁴ and further stated that the AER had not erred in their decision-making process.⁸⁵

Why, therefore, has there been a change in approach? The AER's rationale for assigning significance to the DGM, albeit restricted to the role of 'informing' the MRP, is not convincing in

⁸¹ Cited in Australian Competition Tribunal, Application by APA GasNet Australia (Operations) Pty Limited (No 2) [2013] ACompT 8 @ 270. McKenzie and Partington regarded the outputs of the DGM models as 'largely a by-product of the chosen growth rates'. [cited @269].

⁸² Ibid, 241.

⁸³ Ibid, 243.

⁸⁴ Ibid, 266 -286, 308.

⁸⁵ Ibid, 298-299, 308.

the light of the AER's own arguments set out in the APA GasNet determination and affirmed during the subsequent appeal process by the Tribunal.

Of further concern is that, notwithstanding all the other evidence to the contrary as set out by the AER in its Draft Determination, GasNet continued to propose a MRP of 8.7 per cent that was primarily derived from the DGM analysis in its revised regulatory proposal. Given the persistence of the NSPs' promotions of the DGM, despite the evidence of its 'highly variable results'⁸⁶ and many other limitations, PIAC expects the AER to make a strong qualification on its use of the DGM in the final RoR Guidelines. The long-term interests of consumers are not well served by the DGM and its variants playing any significant role in the estimation process.

Recommendation 11

The AER restricts the use of the DGM to a minimum role in the assessment of the return on equity reflecting the reliance of the DGM on the input assumptions and the high level of volatility in the outputs of the DGM.

4.3.3 Wright CAPM

The approach proposed by Professor Stephen Wright (Wright CAPM)⁸⁷ provides an alternative to the implementation of the Sharpe-Lintner CAPM for estimating the return on equity for the efficient benchmark entity. In essence, the Wright CAPM separately estimates the MRP and the risk-free rate with the aim of deriving a 'constant' return on total equity through time.⁸⁸

The Wright approach not only assumes that the total return on equity for the market is reasonably constant, it also proposes that there is a 'perfectly negatively correlated'⁸⁹ relationship between the two components of the return on equity, namely the risk free rate and the MRP. In contrast, the AER's current application of the CAPM model assumes the risk-free rate and the MRP are independent and that the MRP can be set in advance of the specific determination (currently in the range of 6.0 per cent to 6.5 per cent). While the AER applies a forward-looking estimate of the MRP, the inputs to the forward MRP estimation are the long-term trends in excess returns on investment, on the basis that it is considering the rate of return required for investment in long-term assets.⁹⁰ PIAC agrees.

The AER then comments that:

There is no consensus in the academic literature, however, on the direction, magnitude or stability of the relationship between the risk free rate and the MRP. Instead, there is evidence to support both a positive and a negative relationship. Given these uncertainties – in particular, that the direction of any relationship may be variable and unstable – we consider it more reasonable to assume that no relationship exists between the MRP and risk free rate.⁹¹

⁸⁶ Ibid, 241(c).

⁸⁷ The AER indicates that this approach was provided to the AER during the course of the AER's determination of the rate of return for the Victorian gas service providers

⁸⁸ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 186.

⁸⁹ Ibid, 199.

⁹⁰ The MRP has been estimated using more than 50 years of data to 10 years of data. The AER is proposing to use an analysis of 10 years of excess returns market data for the MRP in its new approach.

⁹¹ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 199 – 200.

The AER proposes that the uncertainties and contradictions outlined above limit its ability to use the Wright approach as the foundation model. PIAC also agrees with this proposition.

However, the AER then proceeds to suggest that the 'Wright approach will inform the selection of the final return on equity point estimate from within the foundation range' and that 'we propose to use a range for the Wright approach'.⁹²

It is here that PIAC departs from the AER's proposal.

It is not at all clear why the AER should introduce a relatively untested modelling framework such as the Wright CAPM into the regulated analysis to 'inform' the outcomes of a reasonably robust and tested model, the Sharpe-Lintner CAPM. The assumption of a constant market equity rate and a perfect negative correlation between the MRP and the risk-free rate appears to have little foundation in theory nor is it consistently demonstrated in practice.

For example, the AER reports (based on the work of McKenzie and Partington) that 'there is evidence to support both a positive and negative relationship'⁹³ between the risk-free rate and the observed excess returns (MRP). The AER then proceeds to state:

Given these uncertainties – in particular, that the direction of any relationship may be variable and unstable – we consider it more reasonable to assume that no relationship exists between the MRP and risk free rate.⁹⁴

The lack of a consistent correlation direction, strongly suggests to PIAC that the Wright model has limited practical value and, like a number of the other models considered, should be used with considerable caution. Notwithstanding this, the AER then states that 'the Wright approach will inform the selection of the final return on equity point estimate from the foundation model range'.⁹⁵

Yet again it appears that the AER is being 'informed' in their decision-making by an approach where the empirical assessment indicates that 'the direction of any relationship may be variable and unstable'.

PIAC is, therefore, most concerned that the AER will not place equal weight on the observed positive and negative correlations. Rather, the AER will rely on the theoretical premise of the Wright approach of a negative correlation and *not* on the observed reality that the correlations occur in both directions. The AER's decision, therefore, will be biased towards the negative correlation assumption in the theoretical model, not the empirical findings. This, in turn, is likely to increase the point estimate of the return above that generated by the foundation model and at the expense of consumers.

⁹² Ibid, 200.

⁹³ Ibid. The AER cites for example, the paper by McKenzie and Partington, *Review of the AER's overall approach to the risk free rate and market risk premium*, 28 February, 21-30.

⁹⁴ Ibid.

⁹⁵ Ibid

As an aside, PIAC would note that the call by NSPs for a model that provides for opposite movements of the risk-free rate and the MRP (based on the claim of a negative correlation between the risk-free rate and the MSP) has only emerged since the risk-free rate has remained relatively low for an extended period. When the risk free rate was around 5 per cent, the question of negative correlations was not raised by NSPs and there was no call for a lowered MRP to 'balance out' the risk-free rate increases.

This point was well made by the Tribunal in their recent judgement (September 2013) on the appeal by GasNet Australia against the AER's determination of the MRP (referred to above). In finding no error in the AER's rejection of an alleged significant negative relationship between the risk-free rate and the expected market rate of return on equity, the Tribunal also stated:

In passing, the Tribunal notes that should such a relationship in fact exist, then it would follow that in the future when the risk-free rate increases, regulated entities, to be consistent, would need to argue for a correspondingly lower market return to be used in estimating the MRP.⁹⁶

Recommendation 12

The AER restricts the use of the Wright CAPM to a minimum role in the assessment of the return on equity reflecting the inconsistent correlation results that have been observed when the Wright CAPM approach is tested empirically

4.3.4 Summary of issues with the return on equity

In summary, PIAC recognises that each of the proposed additional models may individually provide some limited insights to address some of the known gaps in the Sharpe-Lintner CAPM. However, these insights (such as they are) must be tempered with the knowledge that the alternative models are, on empirical testing, generating volatile and inconsistent results despite their apparent theoretical strengths.

Therefore, PIAC would expect that in the final RoR Guideline, the AER acknowledges more strongly the limitations of the alternative models and the limited role each of these alternatives should play in determining the point estimates. Importantly, one of PIAC's greatest concerns is that each of these alternative approaches is likely to individually increase the point estimate of the rate of return compared to the Sharpe-Lintner CAPM point estimate. Their collective impact is therefore doubly biased and problematic.

Given:

- the risk of compounding upward 'corrections' to the Sharpe-Lintner CAPM point estimate; and
- the limitations of the AER's proposed measures to validate the overall return on equity (such as RAB multiples);

it is even more important that the AER's final RoR Guideline clarifies the limited roles that each of the alternative models should play in the final determination. In PIAC's view, the AER should provide clear guidance on this in order to manage the expectations of all stakeholders on the

⁹⁶ Australian Competition Tribunal, above n 79, 300.

degree to which these models can influence the final point estimate outcome, both individually and collectively.⁹⁷

Recommendation 13

The RoR Guideline provides clear guidance on the role each alternative model will play in the final determination and the degree to which these models can influence the final point estimate outcome, both individually and collectively.

Recommendation 14

The RoR Guideline should explicitly state that if a NSP proposes an approach to the AER's framework (such as the 'multi-model' approach developed by the Energy Networks Association) that differs from the AER's framework approach, then the NSP must explicitly evaluate their alternative against all the criteria in the Guideline and demonstrate that the result is in the long-term interests of consumers. This includes demonstrating that the alternative model is not subject to volatile or contradictory results but rather produces reliable and stable results over time.

5. Return on Debt & Transition

The amended NER and NGL require the AER to adopt an approach that contributes to the achievement of the allowed rate of return objective as applied to the *benchmark efficient entity*.⁹⁸ The NER and the NGL also provide more flexibility to the AER to develop an approach that best contributes to the allowed rate of return objective by setting out three general approaches that the AER may adopt. These three options are as follows:

- the return required by debt investors in a benchmark efficient entity if it raised the debt at the time or shortly before the time when the AER makes the relevant determination (the '*on the day*' approach, as is the current approach);
- the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of the regulatory year (the '*trailing average portfolio*' approach); and
- some combination of the two options above (the '*hybrid portfolio*' approach).⁹⁹

In addition, the NER and the NGR provide for the AER to select a methodology that results in either:

- the return on debt for each regulatory year in the regulatory period being the same (as is current approach); or
- the return on debt being different for different regulatory years in the regulatory period (e.g. annual updating of the return on debt).¹⁰⁰

⁹⁷ PIAC understands that the AER intends of the Sharpe-Lintner CAPM to provide the range for the return on equity (ie set the boundaries), such that the alternative models only inform the AER when setting the point estimate within the Sharpe-Lintner CAPM range. However, the range may be several percentage points and even relatively small movements in the rate of return on equity can have significant impacts on network revenues and prices.

⁹⁸ See NER cl 6.5.2(h) and 6A.6.2(h), NGR r 87(8).

⁹⁹ See NER, cl 6.5.2 (j) and 6A.6.2(j), NGR r 87(10).

¹⁰⁰ See NER, cl 6.5.2(i) and 6A.6.2(i), NGR r 87(9).

As noted in the discussion on the return on equity, an important first step to considering the return on debt is the assessment of the risk of the benchmark efficient entity. In the context of the approach to return on debt, this has a number of distinct, albeit interconnected, components:

- how do providers of debt assess the risk of the benchmark efficient NSP (*not* the risk of individual NSPs which is strongly influenced by actual management policies as well as the risks of the industry more broadly)?
- how does the particular regulatory approach affect the risk of the benchmark efficient NSP?
- how does the new regulatory approach affect the risk of the benchmark efficient entity compared to the current regulatory approach (i.e. a comparative question)?

These questions form part of PIAC's response to the AER's proposal, as set out below.

5.1 The AER's proposed approach to estimating the return on debt

5.1.1 Return on debt: the trailing average portfolio approach

The rules provide the flexibility for the AER to specify in the RoR Guideline any one of three approaches to estimating the return on debt, that is, a 'on the day' approach, a trailing average portfolio approach or a hybrid portfolio approach. Alternatively, the AER could choose to include two or three of the options in the RoR Guideline, leaving it to each NSP to select a preferred approach (the 'menu' approach) in their revenue proposal to the AER.

The AER proposes to specify in the RoR Guideline only *one* of the three options in the rules. That is, the AER proposes to estimate the return on debt using a trailing average portfolio approach that will apply to all NSPs. The trailing average portfolio approach is defined as follows:

[the trailing average is] the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of the regulatory year in the regulatory control period.¹⁰¹

The AER also proposes that the trailing average portfolio approach will feature the following:

- the trailing average portfolio approach will have a length of seven years;
- include an automatic update of the return on debt estimated for each year of the regulatory period;
- equal weights will be applied to all elements of the trailing average portfolio, that is, each year in the trailing average portfolio will have an equal weight in calculating the average historical return on debt;¹⁰² and
- the estimation of the return on debt for each year will be based on:
 - the published yields from an independent third party data service providers;
 - using a credit rating of BBB+ from Standard and Poor's or equivalent; and
 - a term to maturity of debt of seven years.¹⁰³

¹⁰¹ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 73.

¹⁰² The first three points are adapted from AER, *Draft RoR Guideline*, above n 1, 21.

¹⁰³ AER, *Draft RoR Guideline*, above n 1, 22.

5.1.2 Transition to the trailing average portfolio approach

The trailing average portfolio approach represents a significant change from the current 'on the day' estimation of the return on debt. In addition, the AER is proposing to reduce the term to maturity assumed in the yield curve from 10 years to seven years.

The AER has therefore proposed that there should be a transition period between the current 'on the day' approach and the seven-year trailing average portfolio approach. The transition is proposed by the AER in order to minimise any risk of differences between the actual cost of debt and the allowed cost of debt given that NSPs may need time to adjust their debt portfolios to the new arrangements.

The AER's proposed approach to this transition period is an adaptation of the approach submitted to the AER by the Queensland Treasury Corporation (QTC).¹⁰⁴ It involves an annual repricing of a portion of the notional debt portfolio for each year of the benchmark term of seven years.

Under this approach, the first year of the seven year transition period will be based on estimating the return on debt in a manner that is similar to the current 'on the day' approach (although the 'averaging period' for assessing the yield curve will be different, and the term to maturity of the yield curve will be seven years rather than 10). The return on debt will be updated the next year using the same approach for the second year, but then averaging this outcome with the first years result.

This process will continue for each year of the seven years with the progressive extension of the historical period. At the end of this roll-in process, the estimate of the return on debt will be based on a full seven years of history. In effect, the transition will occur over the full five years of one regulatory period plus two years of the next regulatory period (a total of seven years). The QTC states that its approach to transitioning:

...would allow a service provider to transition from a strategy that aimed to minimise interest rate risk under the 'on the day' approach to transition to the portfolio approach. Under this approach...there would be no short term impact on consumers.¹⁰⁵

5.2 PIAC's response to the proposal

5.2.1 The overall application of the AER's proposed approach

As the AER recognises, there are a number of approaches to the return on debt estimation that would be consistent with the rules and the RPP, NEO and NGO.¹⁰⁶

PIAC is pleased, however, that the AER has not adopted the 'menu' approach in the RoR Guideline. There is considerable concern by consumers that the 'menu approach' provides too much of an opportunity for NSPs to 'game' the system by opportunistically switching between

¹⁰⁴ Queensland Treasury Corporation, *Submission to the consultation paper*, 2013.

¹⁰⁵ *Ibid*, 26. Also cited in the AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 95.

¹⁰⁶ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 75.

approaches from one regulatory determination period to another, depending on what approach delivers the highest return on debt at a particular point in time.¹⁰⁷

PIAC also strongly agrees with the AER's proposal to apply the same trailing average portfolio approach to all the NSPs, irrespective of size or ownership structure, or whether the NSP is an electricity or gas, distribution or transmission business.

There is insufficient evidence to support the hypothesis that a trailing average portfolio approach would disadvantage a benchmark efficient entity in any of these categories. As PIAC stated in its response to the Consultation Paper, there is a trade-off between flexibility and regulatory certainty and different approaches should be adopted only when there is a clear and unambiguous need for change.¹⁰⁸ The evidence to date is that both larger and smaller NSPs manage their debt exposure and refinancing risk through some form of portfolio approach rather than raising all their debt 'on the day'. This is an efficient and prudent approach for all NSPs irrespective of size and ownership structures.^{109 110}

For instance, the AER explicitly addresses the question of the extent to which investment decisions by smaller NSPs such as the Victorian electricity and gas distribution company, Jemena, would be distorted by the trailing average portfolio approach. The AER considers that there is insufficient evidence to support the contention by Jemena that investment will be distorted.

Moreover, the AER, quite correctly in PIAC's view, contends that firms such as Jemena, can implement financing strategies that allow them 'to achieve a level of consistency with a trailing average'.¹¹¹ It also appears that even the smaller NSPs like Jemena are part of a larger corporate group¹¹² and have access to financing and guarantees from their parent company or equity partner that facilitate the opportunity for efficient management of interest rate risk.

PIAC therefore agrees with the AER's conclusions and considers that this type of claim should be treated with a great deal of caution by the AER in the future. For example, the notes to the March 2013 financial accounts for SPI (Australia) Assets Pty Ltd (Jemena), indicate an approach to borrowing that is efficient and flexible. The notes to the accounts indicate that Jemana holds a

¹⁰⁷ For instance, if current bond yields are high, then the NSP might propose the 'on the day' approach to take advantage of the current conditions, even though they have a portfolio of long term debt that in practice has a lower average cost. If by the next regulatory period, interest rates are low, then the NSP might switch to a trailing average portfolio approach to capture historically higher rates. This means that consumers are always on the 'losing side' of the return on debt and there is no averaging of risk between consumers and NSPs over time.

¹⁰⁸ Hughson B and Hodge C, above n 7, 6.

¹⁰⁹ Although some NSPs appear to hedge the risk-free rate around the time of the regulatory determination, this is an optional financing decision and with the AER's proposed trailing average portfolio approach with annual updating may not be as necessary for a prudent debt management.

¹¹⁰ There is a claim that smaller NSPs have higher refinancing costs as a proportion of all costs. Even if this is true, these additional costs should be captured in other areas of the regulatory arrangements, not the RoR.

¹¹¹ AER, above n 2, 86. This view was also proposed by the QTC in its submission to the RoR Consultation Paper, as cited by the AER.

¹¹² Jemena's website (Investor Information) states that 'SPI (Australia) Assets Pty Ltd (SPIAA) is a wholly owned subsidiary of Singapore Power International Pte Ltd and a member of the Singapore Power Limited Group. SPIAA is branded as Jemena for its operations within Australia. References to the Jemena Group and SPIAA are used interchangeably and refer to the same group of assets operating in Australia.'

substantial portfolio of debt of different sources and tensor. The notes also highlight the fact that Jemena has the potential to access additional funds from a variety of sources. The notes state:

As part of managing liquidity risk, the Group aims to maintain a diversified debt portfolio, in terms of maturity and source. In this regard, the Group has raised funds in both the bank debt market, the domestic and offshore capital markets. The investment grade credit rating of the Group ensures ready access to both domestic and offshore capital markets.¹¹³

Given this, it is concerning to PIAC that Jemena claims that ‘any transition to this benchmark [the trailing average portfolio] will further increase financing costs and risks for these [small] NSPs.’¹¹⁴ Jemena also claims that if the AER adopts a trailing average portfolio benchmark ‘then these extra costs and risks should be compensated through higher cost of debt or equity allowances, or both ...’¹¹⁵ PIAC notes with approval that the AER, to date, has not accepted this proposition for an extra allowance.

Nor should it. In particular, Jemena would need to very clearly demonstrate that it incurs higher financing costs from a trailing average approach than it does with the current one off, ‘on the day’ approach. PIAC finds it difficult to see why it would cost more to have a reduced interest rate risk. PIAC also highlights that Jemena (or any other distributor) could retain the ‘on the day’ approach if it so chose, it is not obliged to replicate the AER’s trailing average approach in its actual portfolio if it believes it can do better with a proxy of the ‘on the day’ approach.

In addition, if a NSP believes they have a good reason to propose an alternative approach to that set out in the RoR Guideline, they can still do so in their building block proposal although they must provide reasons for departing from the Rate of Return Guideline.¹¹⁶ These reasons for departing from the Guideline can then be critically assessed by the AER and other stakeholders against the NEO and NGO, RRP and the allowed rate of return objective.

Recommendation 15

The AER should critically examine claims by NSPs for recovery of costs associated with the change in the return on debt calculation. This examination should analyse whether NSPs have means to avoid costs through staggered debt portfolios or flexible financing arrangements through parent companies.

Recommendation 16

If the benefits of moving to a trailing average outweigh additional costs, the AER should investigate the development of a compensatory scheme to pass those benefits on to consumers.

5.2.2 The trailing average portfolio approach

PIAC is generally supportive of the AER adopting a trailing average portfolio approach to estimating the return on debt. The trailing average portfolio approach is more likely to produce an outcome that is commensurate with the cost of debt of an efficient benchmark entity with a

¹¹³ See <http://jemena.com.au/Assets/About/Investor-Information/Financial%20Statements%20for%20the%20year%20ended%2031%20March%202013.pdf>, 62.

¹¹⁴ AER, above n 2, 85. The AER cites Jemena, *Submission to the consultation paper*, June 2013, 1.

¹¹⁵ Ibid. The AER cites Jemena’s *Submission to the AER Consultation Paper*. 1-2.

¹¹⁶ NER, S6.1.3(9) and S6A.1.3(4A), NGR r 72 (g).

portfolio of debt with ‘staggered maturity dates’.¹¹⁷ A debt management approach of staggered maturity dates (or a hedged portfolio that replicates this structure) more closely reflects a prudent debt management strategy and reduces the NSP’s exposure to interest rate movements and refinancing risks.

PIAC also accepts that there are benefits to annual updating of the cost of debt because it should further reduce the risk of a potential mismatch between the allowed return on debt and actual debt costs (see 5.2.2.1 below).

PIAC also strongly rejects the suggestion by some NSPs that there should be additional allowances granted to these NSPs based on their size as discussed in section 5.2.1 above. This should only be contemplated if the costs and risks are greater than the current arrangements. However, the trailing average portfolio approach provides *more* protection against interest rate risk, not less, than the current arrangements. In addition, there is no obligation on a NSP to adopt the financing practice proposed for the benchmark efficient entity as highlighted above; the NSP is free to try adopt alternative approaches and/or to beat the benchmark, as long as the consumer does not carry the cost and risk of these alternative financing strategies.

Beyond this general support, however, PIAC has a number of more significant concerns with the details of the AER’s proposed approach, as highlighted below.

5.2.2.1 Annual Updating & weighting

PIAC had previously queried the need for annual updating particularly in the context of the impact of annual updating on intra-period volatility in consumer prices, the added complexity and the potential for an additional round of disputes between the NSPs and the AER (which are ultimately at the cost to the consumer).¹¹⁸

PIAC is pleased to see that the AER’s proposal does not include the option of having a ‘true up’ at the end of the regulatory period. This provides a limited protection against interest rate mismatches to the NSP, but at the cost of greater stress on cash flows during the regulatory period compared to the annual updating approach. More importantly, it increases the risks to consumers of large movements in prices between regulatory periods.

However, having considered all the additional material, there seems to be sufficient evidence for PIAC to accept that, on balance, annual updating might be preferred particularly when this involves automatic updating. Particularly informative for PIAC was the research by the QTC, which indicates that interest rate cycles might be longer than five years.¹¹⁹ If this were the case, then a fair sharing of interest rate risks between NSPs and consumers would be more difficult to achieve over a reasonable time period. PIAC suggests that the AER confirm the QTC’s analysis on the length of interest rate cycles and their impact on equitable risk sharing between NSPs and consumers over time.

It should be noted, however, that PIAC does not have a strong preference with respect to annual updating. For example, PIAC remains concerned with the prospect of significant increases in the

¹¹⁷ AER, above n 2, 83.

¹¹⁸ Hughson B and Hodge C, *PIAC Submission to the consultation paper*, above n 7, 9.

¹¹⁹ For example, QTC, *Submission to the consultation paper*, June 2013, 36.

workload of the AER and, perhaps, the NSPs. However, given the annual updating is going to be 'automatic' (i.e. based on some simple formula consistently applied), and that the updating occurs at the same time as other adjustments to revenues, the process may not be too disruptive to an NSP. The AER, however, will need to conduct 'automatic' updates every year for every determination that is on foot. On the surface, this appears to be quite a significant regulatory burden.

If automatic annual updating were to proceed PIAC would recommend the following:

- the AER confirms that the process of updating will not be so complex for either the AER or the NSP that it will add to overall costs and/or reduce transparency in the process;
- the AER note the significant increase in the burden on consumers to engage effectively in the process and investigate ways this might be addressed;
- the AER ensure that the reduction in interest rate risk for the NSP is appropriately captured in the cost of equity, for instance, by a further reduction in equity beta.
- At a minimum, the benefits of annual updating should outweigh any additional costs that NSPs may claim for implementing annual updating;¹²⁰ and
- the AER closely monitor the outcomes of annual updating so that a more robust statistical assessment of its value and costs can be conducted in the future.

With respect to the various options for weighting years within the trailing average portfolio, PIAC agrees with the AER's conclusions that there should be no weighting applied. Any weighting complicates the analysis but provides no better guarantee that it will replicate the prudent practices of an efficient benchmark entity. The fact that NSPs will have a different profile than the 'equal weight' profile is not a relevant consideration unless it is found that there is some consistent cycle of debt issuances that would be adopted by a benchmark efficient NSP over time.

Recommendation 17

PIAC recommends that the AER undertake further assessment on the length of interest rate cycles in order to inform the final decision on annual updating of the return on debt and the trade-off between the cost of this and the long-term benefit to consumers.

5.2.2.2 The use of third party service providers

The AER is proposing to use third party service providers as a source of information on the seven-year fair value (FV) yield curve.

At this stage, the only third party service provider of a FV curve is Bloomberg. All stakeholders and the AER have expressed concerns with the Bloomberg FV curve. This includes concerns

¹²⁰ The Energy Network Association (ENA) states that its support of a trailing average is 'conditional on automatic updating', ENA, *Response to the Consultation Paper*, June 2013, 7. (Cited in the AER, *Explanatory Statement, Draft RoR Guidelines*, above n 2, p 88). Presumably the ENA recognises that the annual updating approach reduces risk and costs.

with the lack of transparency in the methodology used by Bloomberg to develop the FV curve and the relevance of the FV curve for bonds with tenors beyond five years as the number of relevant Australian bonds in the Bloomberg sample declines quickly after five years.

PIAC shares this concern. However, in the response to the issues raised with the Bloomberg FV curve in the Consultation Paper, PIAC suggested that it may still (flawed as it is) be the most appropriate method of establishing a forward looking estimate of the cost of debt for the time being and in the absence of another independent source of data on debt costs.

PIAC also urged the AER to commence the process of developing its own data set on Australian and overseas bonds so that in future the AER might choose to rely on its own data rather than third party proprietary models that lack transparency and appear to provide distorted outcomes for longer tenor bonds.

The AER's proposal, however, refers only to the use of third party providers. PIAC recommends that the AER state clearly their intention (or otherwise) to develop its own data base of relevant bond issuances.

The sooner a reliable suite of relevant bond data is established the better the outcomes with respect to the allowed rate of return objective.

This is because the third party data providers such as Bloomberg not only lack transparency. It is also the case that the FV curves from Bloomberg are built up from many bond issuances that include industries with quite different, and usually higher, risk characteristics than those of the NSPs.¹²¹ This leads to a significant risk to consumers that the cost of debt will be too high.

The AER indirectly recognised the issue of potentially inflated estimates of the cost of debt if the AER relied only on the Bloomberg FV curve for estimating the cost of debt for the Victorian distribution NSPs. In this determination, the AER included the Australian Pipeline Trust's (APT) 10-year BBB rated infrastructure bond as well as the extrapolated Bloomberg 10-year FV curve. Relevantly, the charts that compare the two (APT bond versus Bloomberg FV curve), indicate that at the seven-year mark there is a significant spread between the Bloomberg FV curve and the APT bond, with the Bloomberg FV curve being about 0.1 to 1.5 per cent higher than the APT bond. A further chart demonstrated that there was a similar spread at the 10-year maturity date.¹²²

The Tribunal, on appeal,¹²³ subsequently rejected the AER's approach of including some weight on the APT 10-year BBB rated bond. The grounds for rejection by the Tribunal related to the arbitrary nature of the AER's determination, the failure of the AER to provide support for the contention that the Bloomberg FV curve (extrapolated to 10 years) overstated the cost of debt to the distribution NSPs and the Tribunal's view that 'a benchmark reference group of bonds [i.e. the

¹²¹ AER, *Final decision, Victorian electricity distribution network service providers, Distribution determination 2011-2015*, October 2010, 489 – 514. This section includes a detailed discussion on the cost of debt and the use of the APT bond to modify the estimates provided by Bloomberg FV curve extrapolated to 10 years.

¹²² *Ibid*, Figure 11.3, 502 and Figure 11.5, 508.

¹²³ Australian Competition Tribunal, *Application by United Energy Distribution Pty Limited* [2012] ACompT 1, 387 – 442.

Bloomberg FV curve bonds) is designed to be representative of all bonds in a specified risk class'.¹²⁴

PIAC's view is that the situation has now changed. For example, the NER now provides for the AER to adopt an approach to the cost of debt that best meets the allowed rate of return objective which, in turn, includes reference to the efficient financing of an efficient benchmark firm of a *similar degree of risk in the provision of network services*.

This strongly suggests that the AER would be able to use data on bonds from a more restricted, and relevant group of entities, to establish a benchmark for determining an efficient cost of debt for an efficient NSP. At the very least, this will enable the AER to more systematically monitor the performance of the Bloomberg FV curve, and to review any alternative approaches.

PIAC is also concerned that the Bloomberg FV curves might shift from year to year due to factors other than movements in market interest rates (e.g. because of different bond sets or different weights attached to the bonds). Given the proposal to update the return on debt on an annual basis, it is important that there is a closer investigation of the consistency, year on year, of the Bloomberg FV curve, or other third party providers of FV estimates.

The AER has provided some initial analysis of this issue in the Draft RoR Explanatory Statement and demonstrated that when using the 'on the day' approach to estimating future debt costs, there are significant swings (in both directions) between the Bloomberg BBB 5-year FV curve and the average yield on bonds with maturity of three to seven years and BBB band credit rating.¹²⁵ Using an average portfolio approach considerably dampens this variation.¹²⁶

While this provides some reassurance, it does not address the more fundamental question that the Bloomberg FV curve (or any other sample of bonds selected from many different industries) will tend to overstate the cost of debt. As stated above, this is because the sample of bonds include bonds issued by businesses with higher risk and do not reflect the relatively low risk characteristics of the NSPs. This low risk is recognised in the financial markets (see Section 3) and it is reasonable to expect it to be reflected in a lower cost of debt for the same level of credit rating.

Recommendation 18

The AER should continue to develop its own database of information on relevant corporate bonds in the Australian market place and relevant overseas markets, in order that it can critically evaluate commercial third-party providers of bond yields.

Recommendation 19

To maintain the integrity of the annual updating process (if the AER proceeds with this proposal), the AER should also undertake an assessment of the consistency of the third-party provider's yield curves from year to year, including a better understanding of which bonds are included and excluded over the course of time.

¹²⁴ Ibid, 438.

¹²⁵ The BBB band credit rating refers to ratings between BBB+ to BBB-.

¹²⁶ AER, *Explanatory Statement, Draft RoR Guideline*, above n 2, 101.

5.2.2.3 Averaging period to estimate the annual allowed return on debt

Unlike the previous approach to the cost of debt, the AER proposes to estimate the return on debt by 'directly referencing the published yields from an independent third party data service provider'¹²⁷. As a result, the AER states that 'the return on debt estimates ... does not require separate risk free estimation'.¹²⁸

The AER also states that while the risk-free rate used for the return on equity estimation is only set *once* at the start of the regulatory control period, the return on debt is updated annually. As a result 'it is not necessary to apply a consistent averaging period for the risk free rate and return on debt.'¹²⁹

PIAC accepts that in principle these are reasonable propositions. However, PIAC does not agree with the averaging period proposed by the AER for assessing the relevant debt costs each year (i.e. the averaging period for the annual updating of the Bloomberg FV curve).

As PIAC understands it, the AER is proposing that while the NSP must choose the averaging period in advance, it can choose any period of 10 days or more during the course of one year (that being the year that commences 18 months before the regulatory control period) for each year of the regulatory control period, making a total of five pre-specified averaging periods. This is in marked contrast to the AER's approach to the averaging period for the risk-free component of the return on equity. The averaging period for the risk-free rate for the return on *equity* will be nominated by the AER, not the NSP, and will be as close as possible to the regulatory control period.

In proposing this, the AER appears to be seeking a compromise; on the one hand the AER is recognising the desire of NSPs to have some flexibility to choose an averaging period that best matches their debt financing 'timetable'. On the other hand, the AER is attempting to minimise the opportunities for 'gaming' by the NSPs by requiring the NSPs nominate the averaging period in advance.

PIAC does not agree with this approach. In particular, PIAC disagrees with the AER's proposal to provide such an extended degree of flexibility in the choice of the averaging period for the annual cost of debt. It seems to PIAC that the AER has been over-influenced by the claims of some NSPs about their actual debt raising practices and has tried to align the approach with this.

PIAC's position is that the averaging period should be more constrained. It is based on the following reasons:

- it will add to the uncertainty and complexity of the process for other stakeholders;
- it will mean that NSPs with the same regulatory control period, may have different return on debt outcomes, depending on their pre-chosen averaging period and the length of that averaging period;

¹²⁷ Ibid, 102.

¹²⁸ Ibid,

¹²⁹ Ibid.

- it is seeking to allow a spurious level of alignment with a NSP's debt raising approach, which is particularly problematic as the NSP progresses forward through the 5-year regulatory control period;¹³⁰ and
- to the extent that there are reasonably regular cycles of interest rates within a year, it enables the NSPs to opportunistically select the most favourable (higher interest) periods, to the disadvantage of consumers.

PIAC therefore recommends that the AER undertake further work to assess whether there is an intra-year cycle for bond yields before finalising its approach.

Subject to this analysis, PIAC also suggests that there are two other options that the AER can consider:

- take the average bond yields and/or Bloomberg FV curve for each business day across the whole year (being the year commencing 18 months prior to the determination); or
- select a period of 40 consecutive business days close to the final determination period, this being sufficient time to smooth out very short term volatility in the bond markets while still reflecting current expectations in the market.

In making this recommendation, PIAC highlights that in each instance, the averaging period will be only influencing one seventh of the return on debt calculation. As such, any mismatches in one year are very likely to be balanced out over the seven-year period.

Recommendation 20

The AER should undertake further investigation to identify if there are consistent intra-year cycles of interest rates and bond yields before it proceeds with allowing the NSPs to select an averaging period at any time within a six to 18 month window preceding the determination.

5.2.2.4 The benchmark term of the debt

The AER is proposing a seven-year benchmark term of the debt and has aligned the averaging period with the seven-year term, that is, the trailing average portfolio is also assumed to be seven years. PIAC agrees with the alignment of the benchmark term and the trailing average portfolio period.

PIAC is more concerned, however, with the AER's proposal to use a seven-year period. The AER's selection of a seven-year period appears to be based on the data on the full debt portfolio from five of the regulated businesses that was collected as part of the 2009 WACC Review.¹³¹

¹³⁰ This is because the averaging period is set in advance for the whole five years. Therefore, as the NSP progresses through each year of the regulatory period, the chances of alignment between their actual and pre-set averaging periods reduces

¹³¹ AER, *Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, May 2009, 159-164. Cited in AER, *Explanatory Statement, Draft RoR Guidelines*, above n 2, 106.

The AER reports that the estimated debt term at issuance was 7.37 years after accounting for floating rate notes and hedging.¹³²

PIAC would first highlight that the private sector NSPs appear to have undertaken considerable adjustments to their debt portfolios since the 2009 WACC review, perhaps as a result of the financial stress of the global financial crisis (GFC) and feed-back from the market and rating agencies. For example, DUET talks of undertaking the following reforms in the 2011 and 2012 financial years:

Significant transactions and capital initiatives that have transformed the portfolio, strengthened the capital structure and improved the investment proposition for security holders.¹³³

Similar statements are made by other NSPs on their investor websites.

It would seem, however, that the NSPs are, on the whole, recommending a 10-year period as being more relevant to their actual portfolio. This is a question that can be answered empirically, noting the need to address all the issues that the AER has identified with the studies provided by the NSPs' expert advisors over the last few months.¹³⁴

On the other hand, it appears that some 30 per cent of the funding for the NSPs comes from bank loans that are likely to be of shorter duration, perhaps three years or so. PIAC therefore strongly recommends that the AER update this original study to assess its current applicability. From PIAC's perspective, there is a preference for adopting an average debt tenor of five years to match the length of the regulatory period and a corresponding five years for the trailing average portfolio assessment.

As highlighted by the Independent Pricing and Regulatory Tribunal (IPART), there are good theoretical reasons to support a five-year average debt period. In particular, IPART refers to the work of Professor Kevin Davis and of Associate Professor Lally who both recommended matching the term-to-maturity to the regulatory period because this is 'consistent with the net present value (NPV) neutrality of regulated cash flows under the building block model'.¹³⁵ IPART goes on to say that 'we consider that the relevant asset is the regulated cash flow, which we reset periodically'¹³⁶ and 'achieving NPV neutrality within our regulatory model means that owners will not be under-or over-compensated'.¹³⁷

PIAC considers that this reasoning is somewhat less strong if the AER adopts the trailing average portfolio approach updated annually for the return on debt, as there is effectively a continual annual update and roll-forward through to the next regulatory control period rather than a specific break from one regulatory period to the next.

¹³² AER, above n 2, 106.

¹³³ DUET Group, *Fact Sheet*, 1. <http://www.duet.net.au/Investor-centre/Investor-guides/Tabs/Fact-sheet/fact-sheet.aspx>

¹³⁴ See discussion in the AER on the limitations of the NSPs data on debt issuances, *Explanatory Statement, Draft RoR Guideline*, above n 2, 106-107.

¹³⁵ IPART, *WACC methodology, Research – Draft Report*, 2013, 12.

¹³⁶ Ibid.

¹³⁷ Ibid.

Nevertheless, the 5-year tenor also has some practical advantages, particularly if the AER is relying on the Bloomberg (or equivalent) FV yield curve. The sample of relevant bonds is considerably larger and there can be more confidence that the FV curve is measuring something substantive and is not 'dominated' by one or two bond issuances.¹³⁸

The AER itself acknowledged in the most recent determination for the Victorian distribution NSPs that the Bloomberg FV yield estimates are 'acceptably representative' of yields on BBB rated bonds of maturities *less than* seven years.¹³⁹ However, Bloomberg's 7-year BBB FV curve estimate is also likely to overstate the relevant corporate bond yield.¹⁴⁰

PIAC therefore concludes based on theoretical and practical grounds that a five-year bond term is to be preferred over seven years. This would also mean that the trailing average period would be based on five years of history, which should simplify this part of the process.

While PIAC has a preference for five years, PIAC also has a strong objection to the use of the 10-year FV curve to determine the return on debt. Again, PIAC's objection is based on both practical and theoretical grounds.

Such an important parameter as the term of the bond should not rest on the thinness of the real world data on Australian 10-year bonds nor on the largely unsubstantiated process of extrapolation of the Bloomberg FV curve from seven years to 10 years. This is particularly the case when the outcome of the extrapolation process is a significant increase in the return on debt above that of a shorter -term FV curve.

While it is true that some NSPs are seeking long-term debt, they are also making considerable use of short-term debt instruments such as bank loans and hedging arrangements that may also shorten the average term to maturity of the debt portfolio. Moreover, there is little evidence that well performing NSPs are experiencing re-financing risk.¹⁴¹ Rather, examination of recent debt issuances indicates that most of the NSPs appear to have no difficulty in acquiring new debt to refinance existing debt¹⁴² and have the ability to secure added protection through hedging and swap arrangements.

As a final point to highlight to the AER, PIAC would note that a 10-year bond tenor would be associated with a 10-year trailing average calculation. This would also have many practical and theoretical difficulties, for example, the most recent return on debt assessment would only represent one tenth of the allowed return on debt.

Recommendation 21

The AER undertake a further investigation of the NSPs current portfolios of debt instruments taking into account the mix of short and long-term debt before the AER decides on the average

¹³⁸ Noting, however, PIAC's view that the FV curve overstates the cost of debt for and efficient NSP, as it includes bond issuances from many businesses with higher risk profiles than the NSPs.

¹³⁹ AER, *Final decision for Victorian distribution networks*, n 121, 502.

¹⁴⁰ *Ibid*, 509.

¹⁴¹ AER, above n 2, 107.

¹⁴² For example, see SP Ausnet release to the ASX dated 12 July 2013, *SP AusNet successfully prices EUR 500M offer*. The offer was for a 7-year bond issue in the European Union. The release states that 'despite the current volatile conditions in the debt market we see strong demand and the offer was more than four times oversubscribed'. [http://www.sp-ausnet.com.au/CA2575630006F222/Lookup/ASX2013/\\$file/EurBond%2012%20July%202013.pdf](http://www.sp-ausnet.com.au/CA2575630006F222/Lookup/ASX2013/$file/EurBond%2012%20July%202013.pdf)

debt tenor in the return on debt assessment. This has important implications for the reliability of the outcomes and their impact on consumers.

5.2.3 Transitioning to a trailing average portfolio.

This is perhaps one of the more difficult decisions the AER will have to make. There are arguments for providing a period of adjustment for the NSPs from one regulatory approach to another. However, there are very good arguments for not having a transition period, not least of which is the precedence it sets,¹⁴³ the complexity and time lag to achieve the final objective and the risks on the way to that goal.

PIAC's current view is that there are links between the approach to the debt tenor, the length of the averaging period and the transition period.

For example, PIAC is recommending a five-year average debt tenor and, therefore, a five-year trailing average period. On the whole, PIAC sees no real need for a transition period in this context. That is, only one fifth of the NSPs debt will be calculated in a manner largely similar to the current approach (i.e. 'on the day') so any exposure does not involve exposure of the entire debt portfolio. The previous four years are 'protected' in that they closely resemble the current arrangements under which the NSPs may have undertaken certain debt instruments and hedging contracts to manage interest rate risk.

The historical averaging period of four years (five minus one, which is the current year) is not so long as it is irrelevant to the current portfolio of debt of most NSPs. Of course, some NSPs may have some of their debt tied up in contracts longer than five years. However, presumably these NSPs have taken out long-term debt in the full expectation that the regulatory allowance for their debt costs will change, and change significantly in some instances, during the course of the term of the debt. That is, in taking out longer-term debt, the NSP would already have built in the risk that the next five-year regulatory period might have a very different allowed return on debt.

Presumably, therefore, these NSPs have already made appropriate arrangements to manage any interest rate mismatch risks that might arise because of difference between the interest rate on the long-term bonds and the 5-year regulatory resets.

Indeed, PIAC would argue that because of the trailing average portfolio, the NSP with long-term debt faces *less risk* than they would *if the current approach had continued*. The trailing average *without transition* will still reduce the NSP's exposures to interest rate movement relative to the current arrangements ('on the day') and will also allow time for the progressive adjustment of a NSP's portfolio, if that is required.

An important consideration here is that the QTC model recommended by the AER (see Section 5.1.2 above) actually mimics the exposures of the 'on-the-day' approach in the first year of the transitional regulatory reset period. This is because for the first year the return on debt for the whole portfolio will be calculated in a way very similar to the current approach. There is little

¹⁴³ For example, it will raise the question of what level of change in the rules or the application of the rules requires a transition period and what does not.

change in the risk profile compared to the current arrangements in the first years of the transition period.

A complication of this analysis appears to arise as a result of the views expressed by the government-owned distribution networks (or at least the NSW networks), which in recent forums have made the claim that they do not want a transition period but do look for a 10-year FV curve.¹⁴⁴ Use of a 10-year FV curve also implies the use of a 10-year trailing average period. The claim here is that a 10-year debt portfolio best fits the actual debt portfolios of the networks in NSW.

It is, therefore, important to reinforce that the objective of the RoR assessment exercise is to establish efficient financing strategy of a benchmark efficient firm that is a stand-alone, pure play Australian company. The AER's approach should not, therefore, be driven by the particular preferences of NSPs with particular ownership characteristics.

It is worth noting here that the AER (and the AEMC) have argued that there should be no special reductions in the rate of return allowed for government-owned NSPs to reflect their lower cost of capital compared to the benchmark efficient entity (as defined by the AER). Equally, there should be no special arrangements to attempt to match the specific characteristics of the capital structure of a government owned NSP. The AER's task is to estimate as well as possible, the capital structure and approach of a prudent and efficient 'pure play' benchmark entity.

As a final point, PIAC notes the AER's comments that a seven-year transition period would limit opportunities for gaming, that is, for switching from one methodology to another, from on-the-day to trailing average and back.

The AER's recognition of the real concerns of consumers with this possibility is welcome. However, PIAC would question whether the risk could be better and more directly managed through the RoR Guideline process itself. If it is a strong concern, and the five-year proposed debt period would not resolve this risk, PIAC would need to reconsider its advocacy for a five-year option and would lend more support the AER's proposal to move to a seven-year period.

Recommendation 22

The AER further consider whether a seven-year transition period is the most appropriate way to reduce the risk of gaming the trailing average approach, or whether there are other mechanisms that can be included in the final RoR Guideline to reduce the risk of gaming.

Recommendation 23

The AER's approach should not be driven by the particular preferences of NSPs with particular ownership characteristics.

¹⁴⁴ For example, this comment was made by a representative of NSW Networks at a rate of return workshop held by the AER in Melbourne on 1 October 2013.