Response to the AER Rate of Return Guidelines – Issues Paper

February 2013

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Executive Summary

The AEMC's Rule determination in respect of the weighted average cost of capital, published in November 2012, has opened the way for a major evolution in cost of capital estimation determinations.

Energy network businesses are among the most capital intensive businesses and energy infrastructure investments are among the longest term investments made in an economy.

Establishing an appropriate allowance for the cost of capital employed by energy network businesses is therefore fundamental to achieving the long term interests of the consumers of energy. In particular[1]:

- Inefficiently high allowances for returns on equity and the costs of debt lead to inflated consumer prices and encourage more extensive discretionary investment than efficiently meets aggregate consumer preferences.
- Under-compensating energy network businesses for cost of capital harms consumers in the long run through discouraging investments in, for example, providing adequate network capacity and through encouraging inefficient practices in relation to mandatory reliability investments.

Establishing an appropriate allowance for the cost of capital is not a straight forward task. All stakeholders tend to agree that the appropriate approach is at a high level to replicate efficient capital raising practices by unregulated companies observed in financial markets but in doing so that the specific risk-return profile of the energy network industry should be adopted.

All of the available methodologies for estimating efficient costs of capital for a benchmark energy network entity from actual financial market data are imperfect. Each one suffers from some theoretical, practical and empirical limitations.

For many years Australian energy regulators have used the Sharpe-Lintner CAPM as the sole significant basis for determining the allowance for the return on equity, as has the 'on the day' approach for determining the allowance for the cost of debt.

The role of the guidelines and importance of a thorough guidelines development process

With the benefit of this experience, a range of shortcomings of these approaches have become manifest. The particular results that the models are currently producing appear to be significantly out of step with actual financing costs. Today, there is a better understanding of the range of potential methodologies available than there were when the use by energy regulators in Australia of the Sharpe-Lintner CAPM and 'on the day' debt approach commenced.

After an extensive process of consultation with all the stakeholders, the AEMC resolved that it was time to open the field for the AER to exercise regulatory discretion in employing a much wider range of methodologies and inputs than were previously used. To enable certainty and fairness for all the stakeholders involved, the new Rules provide for the development by the AER of guidelines explaining how it intends to exercise this discretion.

[1] Supported by the revenue and pricing principles in the National Electricity Law (NEL) and the National Electricity Objective (NGO).

The ENA recognises that the rate of return guidelines cannot be expected to set out exactly how the AER will exercise that discretion in every single detail. Nevertheless, the AEMC's clear intention is, and stakeholders' expectations are, that the guidelines will provide sufficient information regarding that exercise so that an interested party could apply it in order to arrive at a reasonable expectation of the rate of return that the AER would decide in any particular regulatory determination. This would be subject only to specific circumstances that would dictate otherwise (in which case, the AER is be required to explain the reasons and evidence why it was therefore appropriate to adopt a different approach).

To deliver those guidelines, it is therefore critical that the guidelines development explore:

- The strengths and weaknesses of individual methodologies.
- The strengths and weaknesses of providing menus of different methodologies or of combining the concurrent use of different methodologies.
- How transition should be achieved from the existing approaches to the new approaches.
- How individual regulatory submissions should be framed both if the business considers it appropriate to adopt the approach in the guidelines or if it considers that special circumstances warrant a departure from the guidelines approach.

The ENA welcomes the opportunity to work constructively with the AER and other interested parties to deliver that important outcome. A thorough, quality process is the only practical way to ensure that the resulting guidelines are one that provides the required level of transparency and certainty to stakeholders and that therefore best serves both the needs of investors and the long term interests of consumers.

Principles or considerations

The ENA endorses the proposition that the AER should take a principled approach to the exploration of the above issues and the drafting of guidelines. An itemised list of matters is helpful in that regard. However, the ENA considers that the list should be shorter and that the list would be better described as a series of considerations for the AER's decision making processes rather than principles. Importantly, the considerations should not be used at the outset of the guidelines development process itself to exclude particular methods *ex ante*. Rather, the process itself should test the strengths and weaknesses of potential methods. This approach should lead to a more refined set of criteria for inclusion in the final guidelines.

Benchmark efficient entity

The regulatory framework involves establishing the efficient returns for a benchmark efficient entity. The Issues Paper proposes, and the ENA agrees, that it is helpful to approach the identification of benchmark characteristics as a two step decision making process with a conceptual benchmark entity being established separately from the exercise of seeking to implement that in practice. The conceptual notion of the benchmark entity is largely agreed (although the ENA would like to see greater clarity that the conceptual benchmark entity should be considered to face the same non-diversifiable, external or uncontrollable risks that each actual business faces).[2] When it comes to the practical implementation of the benchmark, there are a number of considerations that should be explored as part of the guidelines development process including whether gas, electricity, transmission and distribution businesses necessarily face the same risks and how data concerning firms that are not the same as the benchmark entity such as foreign firms or data from other kinds of

[2] The ENA notes that not all risks have a direct impact on the required rate of return, however the definition of the benchmark efficient entity may have implications beyond the rate of return guidelines process.

borrowers may be used to improve the estimates for the costs of the benchmark entity where there is a limited pool of firms that closely resembles the benchmark firm.

Return on equity

With respect to the return on equity, the ENA considers that the guidelines development process should examine the use of at least the Sharpe-Lintner CAPM, the Black CAPM, the Fama French Methodology, dividend growth models and other relevant evidence. Equally and perhaps more important is to explore how the full range of information can best be harnessed, and in this regard the ENA has concerns that the AER's version of a 'cross-checks' model may not be the most appropriate way to properly consider all relevant evidence in the way the AEMC intends. The ENA proposes to explore a model by which all the available methodologies and data can be taken into account according to the contribution each brings to delivering the best estimate of an efficient rate of return. The ENA's initial thoughts on how this approach would work are explained in the submission.

Return on debt

With respect to the cost of debt, the ENA considers that new methodologies are needed but, they need to be more fully developed as part of the guidelines process. These models include a trailing average with and without the use of swaps. The suitability of these new models for the full range of different benchmark businesses that are subject to the National Electricity Rules and the National Gas Rules needs to be explored and this process may identify an important continued role for the 'on the day' method in addition to new models. This would be consistent with the AER's announced intention to develop robust alternative 'on the day' cost of debt approaches, and encouragement provided by the Australian Competition Tribunal to do so.

The ENA intends to work diligently and collaboratively with the AER and all stakeholders to deliver significant and well considered changes in a number of key regulatory practices involved in setting an allowed rate of return including the estimated return on debt and estimated return on equity.

Part A: Response to the Issues Paper

1. Introduction

The new Rules

The AEMC's Rule determination in respect of the weighted average cost of capital, published in November 2012, has opened the way for a major evolution in cost of capital estimation determinations.

The framework is designed to address a range of significant concerns that all stakeholders had with the tightly constrained approach that previously applied to establishing the allowances for the return on equity and the cost of debt.

Under the new Rules[3]:

> "As part of the framework, the Commission has not included any preferred methods for estimating components of the rate of return consistent with the overall objective. Instead the Commission has provided high-level principles to guide the estimation and left the judgment as to the best approach to the regulator to make, consistent with achieving the overall allowed rate of return objective."[4]

> "A major concern expressed in numerous submissions is that under the proposed changes the regulator would still be able to, in effect, make exclusive use of the CAPM when estimating a rate of return on equity. The Commission understands this concern is potentially of considerable importance given its intention is to ensure that the regulator takes relevant estimation methods, models, market data and other evidence into account when estimating the required rate of return on equity."[5]

The new Rules have abolished the 'monopoly' positions embedded in previous Rules for:

- a specific implementation of the Sharpe-Lintner CAPM in determining the allowance for the return on equity[6]; and
- the cost of debt by the "on the day" method when determining an allowance for the costs of debt.

The new Rules now provide for a wide range of potential methodologies and inputs into them to be used. In the ENA's view, the reform process should be open to more extensive change than making incremental changes to past practice.

> "To determine the rate of return, the regulator is also required to have regard to relevant estimation methods, financial models, market data and other evidence. The intention of this clause of the final rule is that the regulator must consider a range of sources of evidence and

[3] The National Electricity Rules (NER) and the National Gas Rules (NGR).

[4] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page iv.

[5] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 157.

[6] The Sharpe-Lintner CAPM was mandated under the previous NER and the regulatory practice was to use the Sharpe-Lintner CAPM to the exclusion of all other financial models under the NGR.

analysis to estimate the rate of return. In addition, the regulator must make a judgment in the context of the overall objective as to the best method(s) and information sources to use, including what weight to give to the different methods and information in making the estimate."[7]

The importance of the NEO, NGO and revenue and pricing principles

The ENA understands that the National Electricity Objective (NEO)/National Gas Objective (NGO) together with the revenue and pricing principles[8] and the *allowed rate of return objective* is central to this consideration[9]. The *allowed rate of return objective* is the most immediate guidance provided to the AER in relation to establishing the allowance for a return on capital employed in network businesses. That objective provides:

" [t]he rate of return for a [Service Provider] is to be commensurate 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 [services]."[10]

A focus in the NEO and NGO on the long term interests of consumers is also central and the best consumer outcomes are achieved through a reasonable balance between:

- minimising the costs of providing an efficient suite of services to consumers, a goal of economic regulation which preclude providing overly generous capital allowances;

  …and …

- ensuring sufficiently high levels returns on existing and new investment to ensure that there is an adequate incentive to provide consumers with the high degree of reliability they expect and to provide assurance that there is sufficient network capacity for low priced energy to be transported from wherever it is sourced to customers throughout gas and electricity markets. These considerations require that regulated capital allowances need to meet minimum efficient levels in the highly competitive contemporary markets for equity and debt capital.

Meeting the overall objectives

The task of achieving an appropriate overall return on capital that is consistent with the energy market objectives necessitates a consideration of all the available information, appropriately synthesising this information, and also testing the aggregate or end result of the process against the objectives:

"[A]s achieving the overall objective has primacy the regulator would need to consider the overall estimate against the overall objective and not just add together and weight its estimates of the cost of equity and debt."[11]

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[7] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 67.

[8] Section 7A of the National Electricity Law (NEL) and Section 24 of the National Gas Law (NGL).

[9] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page ii.

[10] Contained in the Rules 6.5.2(c), 6A.6.2(c) and 87(2)(3).

The importance of the guidelines development process

Under the new Rules for establishing the regulatory allowances for returns on capital, the most significant detailed work examining different options should occur at the guidelines development stage.

A thorough and transparent examination of the relevant options during that process provides two crucial benefits:

- it allows the AER to deliver a robust guidelines that provides interested parties with as much information regarding how it intends to exercise its discretion in reset determinations as is feasible (specifically, it allows an interested party to apply the guidelines in order to arrive at a reasonable expectation of the rate of return that the AER would decide in any particular regulatory determination subject only to specific circumstances); and
- it ensures that the participants in the guidelines development process are informed ("on the same page") with regard to the subject matter — this serving to minimise areas or points of potential future disagreement.

With such a wide range of material to be considered and synthesised, the task is a substantial one in the timeframe set out by the AEMC. The ENA intends to work diligently and collaboratively with the AER and all stakeholders to deliver significant and well considered changes in a number of key regulatory practices involved in setting the allowances for debt and equity capital.

2. Principles or considerations

The role of the list in the decision making process

The ENA agrees with the AER that a principled approach to the reform should be adopted.

Identifying a list of considerations will assist in the guidelines development process and in considering departures from, or implementation of, the guidelines in subsequent regulatory determinations. For the reasons explained below, the ENA is of the view that the term "considerations" rather than "principles" would better describe how the list could best be applied in the decision making process.

The list of considerations needs to be applied in a manner that is consistent with the hierarchy of regulatory guidance provided to the AER. In the tables below, the ENA sets out some preliminary views about the considerations and provides some broad examples of their application. These tables are not exhaustive or determinative and should be interpreted in light of the following submissions:

- The listed considerations should be identified in a manner consistent with (and cannot supplant) the requirement in the new Rules that return on capital decisions achieve the *allowed rate of return objective*. The overall objectives for gas and electricity laws, and the

(continued…)

[11] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 68.

revenue and pricing principles[12], in the primary legislation should also inform how the *allowed rate of return objective* is met.

- None of the itemised considerations should operate in a binary or "absolute" way. A model should not, for example, be included or excluded on the basis that it "passes" or "fails" a particular itemised consideration. Nor should the list of considerations as a whole operate as a 'score sheet' with a model being preferred because it has "satisfied" five considerations while another has only "satisfied" four. Rather the list would constitute considerations upon which AER decisions should be made.[13]

- The ENA sees the set of considerations evolving over time to reflect a collation of regulatory best practice. It does not consider that the list of considerations should remain static, be interpreted in a strict legal sense, or be applied in a mechanical "check-box" manner.

  Example of how to apply the considerations:

  Suppose three of the considerations for the decision making process are that it deliver a "close empirical approximation of the cost of equity that a benchmark firm would actually face" that is "unbiased" and "reasonably stable over time" (Consideration 1, 2 and 3). A decision may best satisfy Considerations 1 to 3 by blending information from, say four models, each of which, if used individually, would deliver more volatile estimate.

  These same four models might also be inappropriate to use in isolation because two of them may have a small bias that under-compensates network service providers and the other two may have off-setting small biases that over-compensate service providers. The combined package of models may also have a lower statistical variation in its predictive power compared with actual returns than would the use of any single model.

  Thus, rather than excluding one or more models or inputs that individually have weaknesses when applying the considerations, including all four models may enable the weaknesses to be off-set and the overall result to best meet the considerations, and consequently the regulatory objectives.

It is useful to commence with an initial list of considerations and the ENA's response to the suggested list in the Issues Paper is provided below. However, the ENA expects that the deliberations of the work-groups, the preparation and responses to the consultation paper, the draft guidelines and responses to them will enable a stronger final set of considerations to be established for publication in the final guidelines. Indeed, it is only by going through that development process that a clear and meaningful list is likely to be achieved.

[12] One reason why "consideration" is preferable to "principle" is that the Laws already contains a "revenue and pricing principles" and any considerations that the AER now identifies need to be consistent with (and if necessary give way to) the principles in the Laws.

[13] This is the other main reason that the ENA prefers the term "consideration".

ENA's response to the initial list of considerations proposed in the Issues Paper

The ENA proposes the following amended list of initial considerations:

Table 1: ENA's amended list of initial considerations

Amended text	Reasoning and comments
The *allowed rate of return objective* may be best met ~~if the proposed rate of return methodologies~~by considering the following:	The focus should be upon the decision as a whole achieving the objective. Applying the considerations on an atomistic basis to each methodology may overlook the possibility that they may be able to contribute at an aggregate level.
(1) ~~Are driven by economic principles~~In selecting one or more methodologies alone or in combination (together with any associated estimation methods, financial models, market data and other evidence):	The term "economic" is inappropriate either as a description of what these items consist of or as a basis for distinguishing the first group of considerations from the others and the term "driven" is likely to set too high a threshold for these matters to appropriately constitute considerations.
(a) the methodologies should have sound~~strong~~ theoretical integrity ~~foundation~~; (b) there is data available that enables the theory to be practically implemented without significant biases in the overall rate of return decision; and ~~(a)~~(c) the methodologies should at their current state of development perform well empirically.	*Equally* good models may have been developed in different ways. Some may have a theoretical foundation which was then implemented and the empirical results evaluated. Other models have been developed in the other order with researchers taking a wealth of actual financial data, undertaking analysis and then asking the question "is there a theory that can explain this relationship?" However, none of the models are likely to have absolute empirical performance so regard must be had to their relative empirical performance.
~~(b) The methodologies are fit for the purpose of estimating the required rate of return.~~	Except to the extent already covered by other considerations, the meaning of "fit for purpose" is uncertain and a decision that merely referred to "fitness for purpose" could obscure what the considerations in fact were.
~~(c) The methodologies are internally consistent.~~	This wording only replicates an obligation already contained in the Rules.
~~(d) The methodologies have regard to prevailing market conditions.~~	This wording only replicates an obligation already contained in the Rules.
(2) ~~Are~~ The methodologies are supported by robust analysis:	Agreed.
(a) The analysis is transparent and replicable.	Agreed.
(b) The analysis ~~appropriately~~ acknowledges	It is necessary to consider addressing not

and addresses uncertainty in parameter estimates used in methodologies.	merely acknowledging uncertainty. The current wording is too broad and a more appropriate limitation would be to address uncertainty in parameter estimates.
~~(c) The analysis output is not unduly sensitive to small changes in inputs.~~	This wording only replicates good administrative law requirements and need not be included as a consideration.
(3) ~~Are~~ The methodologies are implemented in accordance with best practice consistent with the intention of the Rules:	Agreed, provided best practice is implemented consistent with the intention of the Rules.
~~(d)~~(a) The implementation uses ~~current,~~ reliable ~~and relevant~~ datasets.	'Current' and 'relevant' wording replicates obligations already contained in the Rules. It is appropriate that datasets be reliable. This amendment is to make it clear that for some parameters the best approach is to use historical databases. In discussing the requirement for regard to be had to prevailing market conditions the AEMC noted: "However, this requirement does not mean that the regulator is restricted from considering historical data in generating its estimate of the required return on equity. Rather, it ensures that current market conditions are fully reflected in such estimates to ensure that allowed rates are sufficient for efficient investment and use."[14]
~~(e)~~(b) That manual adjustments (including filtering) should only be undertaken if there is an economic basis for doing so. ~~The implementation avoids arbitrary filtering or adjustment to the data.~~	As the draft principle implies, there are circumstances in which filtering should be undertaken but this is not the only form of adjustment that may be necessary. The term "arbitrary" is ambiguous and a clearer basis for distinguishing between appropriate and inappropriate adjustments is whether there is an economic basis for the adjustment.
~~(a)~~(4) The effect on incentives to finance efficiently.	This is a core concept that the regulatory framework is endeavoring to achieve and a useful consideration when examining a range of feasible decisions.

[14] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 69.

(5) ~~Recognise that there may be a~~ When there is a need to exercise regulatory judgement the reasons for the decision identify: (a) that there has been an exercise of regulatory judgement; (b) what the total field of possibilities is in which the regulatory discretion was exercised; (c) the facts, reasoning and other material that was taken into account in exercising discretion in relation to that aspect of the decision; and ~~(a)~~(d) how the material taken into account lead to the exercise of discretion. ~~(4) The methodologies promote reasoned, transparent and predictable decision making.~~	The key aspect of the new Rules is that the AER has a great deal more latitude to exercise discretion and this needs to be accompanied by a high degree of transparency.
~~(b) The methodologies avoid the search for false precision.~~	It is inherent that all aspects of the decision must avoid "falsity". The particular concern, here, is that "false precision" is a wholly subjective concept.
~~(5) Are supportive of broader regulatory aims:~~ ~~(a) The methodologies are consistently applied across industries, service providers, regulators and time.~~ ~~(b) The methodologies are comprehensible and accessible.~~ ~~(c) The methodologies promote simple over complex models where appropriate.~~	The wording proposed by the AER was ambiguous and could be interpreted as a suggestion that the regulatory powers might be exercised for extraneous purposes which would be unacceptable. In the consultation forum, the Presiding Member indicated that the intention was limited to considering advances in cost estimation techniques used by other economic regulators of infrastructure exercising analogous regulatory functions or discoveries by them in relation to data sets commonly used by the AER. If that consideration is undertaken with a careful eye to the relevant differences between the regulatory frameworks applying for energy and other infrastructure industries, the ENA is not opposed to such considerations. However, such considerations are already fully covered by considerations 1, 2 and 3. To avoid the possibility that confusion could arise as to whether any additional, extraneous considerations were being applied, this additional proposed consideration should not be included.

Examples of the application of the considerations

The ENA considers it would be useful to provide examples wherever possible of how the considerations would be applied. For its proposed considerations, examples are provided below.

Table 2: Examples of the application of the considerations

Amended text	**Example**
The *allowed rate of return objective* may be best met by considering the following:	
(1) In selecting one or more methodologies alone or in combination (together with any associated estimation methods, financial models, market data and other evidence):	
(a) the methodologies should have sound theoretical integrity; (b) there is data available that enables the theory to be practically implemented without significant biases in the overall rate of return decision; and (c) the methodologies should at their current state of development perform well empirically.	It may be appropriate to give equal weight to two methodologies for determining the return on equity of the following sort: • Model A that was first proposed in a paper written by two respected finance theorists, other academics were readily available to find data to implement the model and it was found to perform well empirically. • Model B that emerged after statisticians established a regression model with a low standard error that explained 50 years of stock market returns using explanatory variables. Although it was not immediately apparent what the theoretical link was in certain explanatory variables, subsequent papers identified a sound basis to explain the statistical observations. In the ENA's view, the greatest weight should be given to the practical implementation and empirical performance of methodologies since it is the real return on capital that the regulatory structure is seeking to replicate rather than an abstract textbook model of how a business may be financed.
(2) The methodologies are supported by robust analysis:	
(a) The analysis is transparent and replicable.	The decision should provide all the relevant workings so that other stakeholders can replicate the analysis. Evidence that is vague or uncertain should be given little weight (e.g. some surveys report a

	summary of participant responses without any details of the survey methodology or even what questions were asked). Other things equal, there should be a preference for evidence for which the data and any particular computer code required to analyse it have been made available. Evidence that is based on data of uncertain origin should be given little weight (e.g. some analyses do not distinguish between traded market prices and survey information). The above examples do not form an exhaustive list and would be relevant considerations and not individually determinative. For example, data and code might be available for a tangentially relevant and poorly designed and executed empirical study.
(b) The analysis acknowledges and addresses uncertainty in parameter estimates.	The decision should not only acknowledge but also address uncertainty, specifically in parameter estimates.
(3) The methodologies are implemented in accordance with best practice consistent with the intention of the Rules:	
(a) The implementation uses reliable datasets.	Where there are several studies providing data for particular parameters, the more reliable source should be given more weight.
(b) that manual adjustments (including filtering) should only be undertaken if there is an economic basis for doing so.	Where there is a valid economic reason to suppose, for example, that markets may have been distorted for a short period due to a non-replicable situation (for example, a short lived tax incentive for infrastructure investment may have temporarily distorted returns in a way that is not likely to be replicated in the future), consideration should be given to removing or adjusting the data during that period.
(4) The effect on incentives to finance efficiently.	If the regulatory framework encourages the business to adopt additional transactions or transactions that are materially different from efficient financing practices there are likely to be unnecessary (implicit or explicit) costs being incurred by businesses and ultimately recovered from consumers.
(5) When there is a need to exercise regulatory judgement the reasons for the decision should identify:	In the future, there may be three services reporting on bond yields. The AER may need to chose one or more index or decide how to combine them based on an average or itself

(a) that there has been an exercise of regulatory judgement; (b) what the total field of possibilities is in which the regulatory discretion was exercised; (c) facts, reasoning and other relevant material to be taken into account in exercising discretion in relation to that aspect of the decision; and (d) how the material was taken into account lead to the exercise of discretion.	compiling an aggregate index. If the AER decides, for example, to construct its own index by combining data from two of the three, it should: • explain why one index was excluded (e.g. it reports on trades in which the author of the index themselves is a party and there is a reason to suppose that some non-arm's length trades have been included); and • explain how the other two were combined (i.e., for each trading day, the quoted price was multiplied by the reported volume to establish the weighting between the two indices) and why (i.e., the AER inquired as to how the indices were established and was told that each one involved researchers seeking out and recording the price and quantity evidence of actual trades).

3. Benchmark Efficient Entity

The rate of return objective requires a benchmark efficient entity to be used. As a starting point, the ENA agrees that the Issues Paper makes a useful distinction between the conceptual definition and its practical implementation.

The conceptual definition of the benchmark efficient entity

In the ENA's view, the benchmark entity should be:

> "A 'pure-play' regulated electricity or gas network business operating within Australia without parental ownership providing the same scale and scope of standard control / reference services to the same customer base at the current time."

The rationale for this is that the benchmark should provide incentives for the network service provider to control the risks that it can control optimally while removing from the network business the impact of undiversifiable risks that it cannot control. Specific aspects of the proposed definition are considered in Table 3 below.

Table 3: Summary of elements in the conceptual definition

Element	Reasoning
'pure-play'…	Network businesses may have other investment activities such as retail businesses or consulting activities overseas. Where practical to do so, these other activities should be excluded from the conceptual benchmark.
…regulated electricity or gas network business…	Where there is competition between networks, the competitive activity should not form part of the benchmark because the risk profile of such a business would not be representative of the risks facing regulated businesses. Similarly, regulated network businesses have qualitative differences when compared with, for example, regulated retail businesses.
…operating in Australia…	Some factors can be country specific such as currency, the level of economic growth and laws affecting businesses.
…without parental ownership...	Each network service provider faces a series of risks inherent in the regulated activities it undertakes and these risks can be transferred between entities within a corporate group but not eliminated. The policy weakness of adopting a benchmark firm that is part of a corporate group structure is that such structures can often involve the parent assuming risks for the subsidiaries or subsidiaries assuming risks for each other. To include the group ownership structures in the benchmark efficient entity would obscure those risks and has the potential to under-, or over-compensate the actual network service provider. Government ownership (whether or not that is legally treated as a 'parental' relationship) should be excluded in the same way as private parental ownership. Applying mandatory competitive neutrality principles that apply as a fundamental principle upon which the Australian economy is now based, State owned businesses are effectively charged the private cost of debt (i.e., removing the effect of any explicit or implicit guarantee) and this should be reflected in the benchmark entity and any benchmarks should only be established on the basis that these competitive neutrality adjustments have been undertaken.
…providing the same scale and scope of standard control/ reference services to the same customer base...	If there is a difference between the financing costs of, say, a speculative gas transmission investment built to service two BBB+ rated customers and an electricity or gas distribution businesses with a large and diverse customer base, there may be a case for different allowance for debt to be compared. Otherwise, there is a risk that the regulatory regime might under-reward risky projects and the customers for those

	projects may not receive the level of services they are willing to efficiently pay for.[15]
…at the current time.	This reflects the requirement to have regard to prevailing market conditions and because the characteristics referred to above (same scale and scope of standard control/ reference services to the same customer base) may change over time.

Practical implementation of the benchmark efficient entity

The ENA agrees there are some important practical challenges in implementing the benchmark.

The first point is whether there are differences for gas or electricity and transmission or distribution. This is an issue that should be fully explored by the AER and stakeholders as part of the guidelines development process. Individual ENA members will have particular insights to provide in relation to this issue.

The second point to note is that while Australian equity and debt markets are distinct from those overseas and there are clearly distinct prices, there is also a significant international flow of funds. For example, Australia has been a net importer of capital since industrialisation commenced. The mere fact that many network businesses raise part of their funding overseas does not undermine the separateness of an Australian market.

Often when raising funds overseas, network service providers will adopt a range of explicit and implicit measures to control the possibility that the Australian dollar revenues (which are a function of domestic economic performance) may diverge from the payments that must be made if debt is raised in another currency. Useful data for the benchmark may be gained from Australian firms even if they engage in a significant degree of international capital raising.

The third point to note is that the Australian economy is small compared with most other developed countries or currency zones in which incentive regulation is implemented. As the Issues Paper correctly identifies, the data exactly meeting the benchmark may be limited.

Importantly, the basis for broadening the pool of firms when implementing the conceptual benchmark to include international data or data for businesses that are significantly different from the benchmark should be that the inclusion of the data would improve the estimate of the rate of return for the benchmark entity. Clearly there are a number of detailed considerations that would be relevant to that question including:

- How robust is the data that closely matches the conceptual benchmark?
- Are the other sources of data likely to be reasonably close proxies for the conceptual benchmark? For example, given the similar level of economic development, system and geography, data drawn from North America may be considerably more relevant than, say, data drawn from many parts of Asia.
- Are there any adjustments that can be made to the data to account for the differences between the source of the data and the benchmark?

[15] These risks can be diversifiable, can be non-diversifiable or a combination and some (but not all) methodologies explicitly address these risks. Where these risks are significant for a given business, it is appropriate to carefully consider whether and how the combination of equity and debt methodologies chosen adequately caters for these risks.

- What is the least cost combination of returns paid to shareholders, payments to lenders and the transactions costs of raising debt and equity?

Finally, a benchmark efficient network service provider may efficiently incur certain costs related to the raising and managing of its equity and debt capital. These costs include debt and equity raising costs and debt hedging costs. Although these costs may not enter directly into the allowed return, the ENA submits that it is appropriate they be dealt with as part of the rate of return guidelines process. The reason for this is that these costs are directly linked to matters to be determined as part of this guidelines process.

4. Allowance for the Return on Equity

Certainty and predictability

In the Issues Paper and the Forum discussion, it has been suggested that there is a trade-off between certainty and the application of regulatory discretion. For example, in the Issues Paper the AER states that its current approach for determining the cost of equity:

> …has provided a degree of certainty and predictability in regulatory decision making. However, it has also been criticised by some stakeholders as being too "mechanistic" and not responsive enough to changing market conditions.[16]

and that:

> The return on equity methodology necessarily involves the exercise of regulatory judgement. For instance, a methodology where the guidelines commit to applying the output from one 'best' model, without adjustment, places significant emphasis on promoting certainty and predictability in regulatory decision making. An alternative methodology might use several models to produce independent estimates and then have the regulator choose a final return on equity in a band around these estimates. Such a methodology would place significant emphasis on avoiding an overly mechanistic approach[17]

At the AER's Forum, stakeholders explored different types of "certainty" within the regulatory process. It is true that the previous National Electricity Rules and the AER's approach to implementing the National Gas Rules provided a particular kind of certainty: that a particular form of the CAPM would be used. This might be called "certainty of process" and it resulted in a predictable process where, for example, the allowed return on equity was determined as a fixed margin of 4.8% over the prevailing 10-year government bond yield.[18]

However, the *outcomes* of that process have been shown to be highly *uncertain* as allowed returns vary directly with government bond yields. Some stakeholders have expressed the view that:

[16] AER 2012, Better Regulation, Issues Paper, Developing the rate of return guidelines, December 2012, page 28.

[17] AER 2012, Better Regulation, Issues Paper, Developing the rate of return guidelines, December 2012, page 29.

[18] Under the Sharpe-Lintner CAPM, the premium for risk is given by the product of beta and the market risk premium (MRP). In a series of recent decisions NSP beta has been set to 0.8 and MRP to 6%.

a. Actual required returns are much more stable over time than regulatory estimates from the current approach would suggest; and

b. If anything, actual required returns are likely to *increase* when government bond yields are at historical lows (after considering what market conditions might cause government bond yields to fall), whereas the current approach produces allowed returns that fall directly in line with government bond yields.

Moreover, at the Forum representatives of consumer groups indicated that (other things equal) more stability in allowed returns, flowing through to more stability in prices, would be in the long-term interests of consumers.

That is, the certainty of process under the previous Rules has in fact produced outcomes that are highly variable and (in the views of some stakeholders) neither commensurate with market conditions nor in the long-term interests of consumers.

When the AER says that:

> a methodology where the guidelines commit to applying the output from one 'best' model, without adjustment, places significant emphasis on promoting certainty and predictability in regulatory decision making[19]

it should be noted that the previous regulatory implementation of the "one best model" approach has created certainty of *process*, but it has also created *outcomes* that have proved to be inconsistent with the interests of all stakeholders in that they have been unstable, volatile over time, and inconsistent with the prevailing conditions in the market.

It is important to note that the regulator need not choose between certainty of process on the one hand and the reasonableness and stability of outcomes on the other.

It is the ENA's view that a constructive guidelines process with input from all stakeholders is critical to develop a regulatory framework in which there is certainty of process *and* that produces outcomes that are more reasonable, stable, and commensurate with market conditions, relative to the current approach. These twin benefits can be achieved simultaneously from a process that is consultative and transparent, has regard to all relevant evidence, and in which the regulator's reasoning and exercise of judgment have a strong basis that is explained in detail.

The Rules requirements

In relation to the return on equity, the new Rules require that the allowed rate of return must achieve the *allowed rate of return objective*:

> The allowed rate of return objective is that the rate of return for a [Service Provider] is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar

[19] AER 2012, Better Regulation, Issues Paper, Developing the rate of return guidelines, December 2012, page 29.

degree of risk as that which applies to the [Service Provider] in respect of the provision of [services].[20]

In applying the rate of return objective, regard must be had to:

1. relevant estimation methods, financial models, market data and other evidence;

2. the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and

3. any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

When determining the allowed return on equity regard must also be had to *the prevailing conditions in the market for equity funds*.

Problems with the "one best model" approach

At this preliminary stage, the ENA notes the "one best model" approach used to date has a number of problems in addressing the requirements of the new Rules. The regulator has no discretion once the model parameters have been estimated – the parameters are substituted into the model and there is a single output. Where more than one model, and other relevant evidence, is to be considered, part of the regulator's role is to exercise regulatory judgment to distil all of the relevant information into a single allowed return on equity.

The clear intention of the AEMC is that the regulator consider a broader range of models and other evidence and to apply regulatory discretion and judgment in distilling all of the relevant information into a single allowed return on equity. This is evident in (a) the fact that the AEMC has made substantial changes to the previous Rules in this regard, (b) the AEMC's discussion of the Tribunal decisions in the ATCO Gas and DBP cases in which the current regulatory approach was found to be acceptable under the previous gas Rules – together with the AEMC's statement that its rule change is designed to prevent the continuation of that regulatory approach[21], and (c) the AEMC's guidance on this issue in its Final Determination – in particular, the Final Determination contains substantial reference to the exercise of regulatory discretion and judgment, which would not have been included if the relatively narrower "one best model" approach were to be continued.

[20] Rules 6.5.2(c), 6A.6.2(c) and 87(2)(3).

[21] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, pages 48-49. In particular, the AEMC specifically drew attention to the fact that the Tribunal's "conclusion presupposes the ability of a single model, by itself, to achieve all this is required by the objective," and that the AEMC then noted that "The Commission is of the view that any relevant evidence on estimation methods, including that from a range of financial models, should be considered to determine whether the overall rate of return objective is satisfied," and further that "no one method can be relied upon in isolation to estimate an allowed return on capital that best reflects benchmark efficient financing costs".

Regulatory discretion and judgment

Regulatory discretion and judgment must be exercised in a rigorous and transparent manner and it must be accompanied by detailed reasoning in the context of the Rules and regulatory hierarchy. For example, in the Final Determination, the AEMC provides the following guidance:

> While the final rule gives the regulator discretion in the factors it must have regard to, the Commission considers that the regulator must undertake the rate of return estimation process with rigour and transparency. In this regard, the Commission expects the regulator to use estimating practices that are robust and rely on transparent data sources. It is also expected that the regulator will clearly articulate how it has considered the factors it must have regard to in making its decision on the allowed rate of return that meets the overall objective.[22]

An approach whereby the regulator "has regard to" relevant methods, models, data and evidence, but then concludes that all of that additional information should be given no weight would not be consistent with the AEMC's intention in revising the Rules. None of the stakeholders at the Forum indicated they would be in favour of the guidelines process falling back to the Tribunal or the SCER at the very first hurdle.

Rather, the exercise of regulatory discretion can be accompanied with a high degree of certainty of process *and* outcomes that are more reasonable, stable, and commensurate with market conditions relative to the current approach. To achieve such outcomes the regulatory discretion and judgment must be exercised by applying the legal requirements and identified decision making considerations and by explaining the reasoning in detail.

The ENA notes the AEMC's guidance that:

> the Commission considers that regulatory accountability and transparency is very important[23]

and that the regulator should be:

> as transparent and open as possible.[24]

[22] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 68.

[23] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 91.

[24] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 71.

The AEMC's final determination also explains that, in the guidelines, the regulator should:

- Detail the financial models that it would take into account in its decision, and why it has chosen those models rather than other models. This would extend to outlining its methodologies, estimation techniques and current estimates (where appropriate) of relevant parameters;
- Detail any other information that it would expect to have regard to, and why it has chosen to have regard to that information and not to other information;
- Provide guidance on how it would use such models and information in reaching its decision, including matters such as:
    - The relative weight (although not necessarily in a quantitative way) it would expect to place on various model estimates;
    - What market data (or similar) it would use to ascertain lower bounds and/or reasonableness checks on the estimates; and
    - The incorporation of best practice in the application of financial models and market data.[25]

A proposed framework for determining the allowed return on equity

The ENA's initial view is that a better way to achieve the outcomes required under the new Rules is to adopt an approach that considers and synthesizes all the available information. An option for this approach is as follows.

At a high level, four steps would be undertaken in the estimation of the required return on equity for the benchmark firm:

- Step 1: Identify the relevant methods, models, data and evidence;
- Step 2: Compute the best estimate of the required return on equity for the average firm using each approach/piece of evidence, and distil from that an estimate of the required return on equity for the average firm;
- Step 3: Compute the best estimate of the required return on equity for the benchmark firm using each approach/piece of evidence . As explained below, this step is incremental to Step 2 above; and
- Step 4: Distil from that an estimate of the required return on equity for the benchmark firm.

[25] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, pages 70-71.

Examining whether this approach results in an outcome that better meets the NEO/NGO, the requirement of the Rules and the guidance provided by the AEMC will be an important element of the guidelines development process. The ENA's initial thoughts are as follows. Regulatory judgment would be exercised at each stage of the process:

- The regulator must ultimately determine whether each piece of evidence is relevant or not;
- The regulator must ultimately determine how to distil all relevant evidence into a single estimate for each relevant parameter, which would lead to an estimate of the required return on equity from each different approach that is considered to be relevant; and
- The regulator must ultimately determine how to distil the various estimates of the required return on equity into a single allowed return.

As set out above, regulatory judgment and discretion must be accompanied by accountability and transparency. The regulator should be very clear about when and where it is exercising regulatory judgment and provide detailed reasons in support of its exercise of judgment. This would involve clear and detailed explanations of, for example, why one piece of evidence was afforded materially more weight than another. It is expected that such explanations would explain how the exercise of judgment served to fulfil the overall rate of return objective and other requirements of the Rules, the NEO, NGO, and RPP. Such explanations would draw on the considerations set out above (and should serve to expand or flesh out those considerations).

More detailed explanations of the regulatory implementation of the proposed approach are set out below.

Step 1: Identify the relevant methods, models, data and evidence

This step may identify a range of different models (e.g., Sharpe-Lintner CAPM, other versions of CAPM, dividend growth models, etc.). It may also identify evidence of current market practice (e.g., current independent expert reports) or evidence of the returns that equity investors reasonably expect from comparable investments where the reasoning for these expectations is made reasonably transparent. The latter could be of particular relevance in establishing whether an allowed return is commensurate with the prevailing conditions in the market.

Step 2: Compute the best estimate of the required return on equity for the average firm using each approach/piece of evidence, and distil from that an estimate of the required return on equity for the *average* firm

The first task for this step is to estimate the required return on equity for the *average firm*[26] using each approach. Most[27] asset pricing models begin with an estimate of the required return for the average firm, and then make an adjustment for the extent to which the firm under consideration might differ from the average (e.g., in the Sharpe-Lintner CAPM beta indicates

[26] In this context the "average firm" can be considered to be a firm of average risk (whatever definition of risk is relevant under a particular model) or it can be considered to be the market as a whole. For example, in the Sharpe-Lintner CAPM, the average firm, and the market portfolio, have a neutral beta of 1.0.

[27] Any model that does not involve an estimate of the returns of an average firm could still be included at Step 3.

how the firm in question differs from the average firm; in the Fama French three-factor model there are three beta-like parameters that jointly determine how the firm in question differs from the average firm, and so on). The estimate of the required return for the average firm should be consistent across all models. Ensuring this consistency across approaches maintains the integrity and reliability of the estimation exercise, and will act to constrain the variation (across approaches) in the estimates of the required return on equity of the benchmark firm. That is, different approaches will only produce different estimates to the extent that they determine the benchmark firm to differ from the average firm – hence we start with an analysis of the average firm to provide a baseline reference point.

This first task would require the estimation of whatever parameters are required to produce an estimate of the required return on equity for the average firm (e.g., for the Sharpe-Lintner CAPM and the Fama French model, this would require an estimate of the risk-free rate and MRP).

Regulatory judgment would be applied in the estimation of each parameter. For example, a range of evidence might be available in relation to MRP and this evidence would have to be distilled down into a single estimate for MRP. That single estimate of MRP would then be applied consistently across the Sharpe-Lintner CAPM and Fama French models, and so on. More generally, whenever the same parameter appears in two or more models or approaches and has the same meaning and interpretation a consistent estimate should be used.

When estimating each parameter, the regulator would have regard to all relevant evidence and would have to explain in transparent detail how that evidence was distilled into a single estimate. Such explanation would involve the application of the considerations, as set out above.

Each model or approach will then produce an estimate of the required return on equity for the average firm. The regulator would then determine a final estimate of the required return on equity for the average firm. This would be accompanied by:

- A detailed description of how the estimates from the different models and approaches had been distilled into a single estimate, with clear reference to the overall rate of return objective and other requirements of the Rules, the NEO, NGO, RPP, and considerations as set out above; and

- A detailed description of how the regulator has had regard to the prevailing conditions in the market for equity funds.

One potential issue with the use of a range of methods, models, data and evidence is the possibility of conflicting estimates. That is, it is possible that different approaches might serve to corroborate one another, but it is also possible that they produce a wide range of outcomes – the latter being problematic for a regulator to deal with.

A wide range of outcomes is more likely to occur if different approaches are implemented using a silo approach with little or no cross-referencing between approaches. For example, such an approach may lead to inconsistent estimates being used for common parameters.

Estimating the required return for the average firm first is likely to help reduce the dispersion of final estimates in two ways. First, the required return for the average firm must be the same under a range of models (e.g., Sharpe-Lintner CAPM, Black CAPM, Fama French model). Imposing this consistency ensures that any variation in estimates is not simply due to

inconsistencies in estimation of common quantities. Second, the specification of the required return on the average firm helps to constrain estimates of other parameters that could otherwise lead to variation across approaches (e.g., a given required return on equity for the average firm constrains the estimate of growth in dividends for the average firm, which helps to constrain the range of estimates that might be produced by dividend growth type models).

Step 3: Compute the best estimate of the required return on equity for the benchmark firm using each approach/piece of evidence

The task in this step is to repeat the process set out above, but for the benchmark firm. The marginal work required here is the estimation of parameters that indicate how the benchmark firm might differ from the average firm (i.e., beta-like parameters). Note, this step is not a repetition of the estimation for the average firm, but is an extension of it.[28]

This would follow the same process as above, whereby the regulator would explain in detail its reasoning at every step of the process. In particular, the regulator would explain how it distilled all relevant evidence into a single estimate for each relevant parameter, and how it arrived at an estimate of the required return on equity from each approach.

Step 4: Distil from that an estimate of the required return on equity for the benchmark firm

Having obtained estimates of the required return on equity for the benchmark firm from various methods, models, data, and evidence, the regulator would then determine a final estimate of the required return on equity for the benchmark firm. This would be accompanied by:

- A detailed description of how the estimates from the different models and approaches had been distilled into a single estimate, with clear explanation by reference to the overall rate of return objective and other requirements of the Rules, the NEO, NGO, RPP, and considerations as set out above; and

- How the regulator has had regard to the prevailing conditions in the market for equity funds.

The ENA considers that regulatory discretion and judgment should be applied throughout the process set out above, and not at one single point within the process. For example, the regulator will need to determine which methods, models, data and evidence is relevant and which is not. Judgment will have to be applied to determine what material is to be considered. Similarly, the regulator will need to determine what data and empirical methods should be used to estimate certain parameters. Here, the regulator will need to consider how to obtain the most reliable estimate, which in turn requires consideration of matters such as the trade-off between sample size and closeness of fit to the conceptual benchmark, and whether estimation reliability can be improved by filtering data sets, for example. Finally, judgment will be required when distilling a range of evidence down to a single point estimate – at the individual parameter level and the allowed return on equity level. The ENA submits that complete transparency and detailed reasoning are key elements of the exercise of any regulatory discretion.

[28] For example, under the Sharpe-Lintner CAPM, Step 2 essentially involves the estimation of MRP to determine the required return for the average firm. Step 3 then involves the estimation of beta to determine how the benchmark firm might differ from the average. If only one model is being used, these steps can simply be performed sequentially. However, if a range of models are being used, it is useful to ensure that they are all consistent in relation to the average firm before making whatever adjustments are necessary to accommodate the benchmark firm.

The "single best model with cross-checks" framework

As set out above, the ENA has concerns with the "single best model with cross checks" approach if such approach would involve simply maintaining the current regulatory approach for determining the required return on equity. That is, the ENA is of the view that the current framework is producing allowed returns on equity that are not commensurate with the prevailing conditions in the market. It is the clear intention[29] of the AEMC when drafting the new Rules to take into account more than one methodology for estimating components of the rate of return consistent with the overall objective.

The Issues Paper and the Forum on 5 February 2013 asked participants to comment on the concept of a single preferred model supplemented by 'cross checks'. There are many ways a 'cross check' model could be implemented. It is not yet clear whether any are capable of delivering the significant reforms that the ENA considers are required by this process.

Although no difficulty with the concept of a cross check model arises when the primary model and all the 'cross checks' are all in agreement, difficulties do arise if there is not alignment. Inherent in a 'cross check' model is the possibility that those 'cross checks' do not confirm the outcome of the primary model and such a regulatory system must have a method of resolving that situation.

Cross checks are usually most amenable to simple binary decision making with an objective answer such as occurs when a flight crew arms or disarms the doors in an airplane and 'cross checks' that fact. If the 'cross check' is negative, the airplane must not take off until the original staff member undertakes the action that he or she initially failed to do and the checker confirms the situation.

In the context of economic regulation to date, the approach to inconsistency has generally been to adhere to the outcome of the primary model in the event of inconsistency (which has the effect of giving the cross checks little or no weight in the decision making process). The most obvious alternative of not proceeding to a decision until the primary model has repeatedly been re-specified until it meets the cross check would be to give the cross check(s) the dominant position and the primary model would have little or no weight.

Neither of those approaches to implementing a cross check model would be a satisfactory approach and it is not yet clear to the ENA whether or how the cross check model might properly take account of all relevant information. Consequently, if the AER wishes to maintain this type of approach as an available method, the ENA is seeking clarification from the AER how these concerns may be addressed in any revised implementation strategy.

Off-setting measurement errors within the regulatory framework

At the Forum, a user group representative submitted that the application of the previous Rules resulted, in the current market conditions, in NSPs over-recovering on the return on debt and under-recovering on the return on equity. The greater flexibility under the new Rules should allow for the return on debt and equity to each reflect the efficient financing costs of a benchmark efficient NSP. That is, there should be no need for debate about whether over-compensation for one component is offset by under-compensation in the other. Rather, under the new Rules the regulator should have sufficient flexibility and discretion to allow a return for each component that properly reflects the efficient financing costs of a benchmark efficient NSP.

[29] See footnote 3 and 4 above.

Such an approach better meets the overall rate of return objective than an approach wherein one component might be underestimated and the other overestimated. In particular, to the extent that the allowed return on debt can now be tied closely to the efficient debt service costs of a benchmark efficient NSP (as set out in the following section), it is imperative that the allowed return on equity must now be more commensurate with the prevailing conditions in the market for funds.

5. Allowance for the Cost of Debt

Rule changes and AEMC guidance

Under the previous Rules, the sole basis for establishing an allowance for the cost of debt was the 'on the day' methodology whereby the allowance was set based on an estimate of the cost of debt over a 20-40 day averaging period shortly before the commencement of the regulatory period.

In the new Rules, the AEMC has made fundamental changes to the way in which the allowance for the cost of debt can be determined. Clause 6.5.2(j) provides that, at each determination, the allowance for the cost of debt can be computed in one of three different ways:

(1) The return that would be required by debt investors in a benchmark efficient entity if it raised debt at the time or shortly before the making of the distribution determination for the *regulatory control period*;

(2) 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 a *regulatory year* in the *regulatory control period*; or

(3) Some combination of the returns referred to in subparagraphs (1) and (2).

Implicit in these considerations is that the regulatory framework should encourage efficient financing practices that the former approach did not explicitly consider.

It is the clear intention of the AEMC that the regulator's task involves more than selecting one "optimal" method from among the range of allowed methods with that single method to be applied in every determination. Rather, the AEMC has stated that:

> The best methodology for estimating return on debt may not be the same for benchmark efficient service providers with different characteristics.[30]

In its Final Determination, the AEMC has also stated that in relation to the guidelines:

> The Commission intends that the regulator could adopt more than one approach to estimating the return on debt having regard to different risk characteristics of benchmark efficient service providers.[31]

[30] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 72.

[31] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 90.

and further that:

> Service providers will have an opportunity at the time of their determination or access arrangement to propose an alternative approach to that proposed by the regulator in the guidelines.[32]

For these reasons, and as expanded in the following section, the ENA is of the view that the regulator should address more than one single approach in the guidelines and propose the timing for when an NSP would need to nominate to the AER a debt management strategy or cost of debt approach. In particular, it is inevitable that the regulator will ultimately have to consider the different approaches that the AEMC has set out in the new Rules. Since the guidelines provide an avenue to consider input from all stakeholders, the guidelines process should not close off discussion of matters that will inevitably arise under individual determinations. Rather, they should set out how the regulator proposes to implement each of the three allowed approaches.

Breadth of analysis for guidelines

The ENA recognises that the precise details of the calculation of the allowed return on debt will have to be considered at each determination. For example, any transition arrangements that might be appropriate will be specific to the business being regulated. The guidelines cannot possibly address every possible nuance and technical detail. However, the guidelines should consider more than one single generic approach selected from among the range of acceptable approaches that has been set out by the AEMC. Rather, the guidelines should contain some consideration and explanation in relation to each of the three approaches that the AEMC has deemed to be acceptable. This approach will provide all stakeholders with an opportunity to provide input into how each of the three approaches might be implemented. If the guidelines were to consider only one approach, and if an NSP proposed a different approach at the time of its determination, there would not be the same opportunity for the AER to broadly consult on the implementation of the proposed approach with the whole range of stakeholders.

Matching the regulatory allowance with efficient debt service costs

In determining which approach is appropriate in a particular case, primary regard must be given to the overall rate of return objective. That is, consideration needs to be given to providing for the allowed return to be *commensurate with the efficient financing costs of a benchmark efficient entity.*

Consistent with this requirement, clause 6.5.2(k)(1) requires the AER to have regard to:

> the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity referred to in the *allowed rate of return objective*.

That is, consideration must be given to how an NSP, with the characteristics of the NSP being regulated, would efficiently manage its debt. Having determined what debt management practices would be adopted by an efficient NSP in the circumstances, the regulator would then select an approach from among the three allowed approaches that best matches the debt management practice of an efficient NSP.

[32] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, pages 90-91.

The way in which that approach is implemented should also take account of those circumstances.

In summary, the regulator should seek to match the method for determining the allowed return on debt with the method that an efficient NSP would employ in the circumstances. This "matching" approach is consistent with the overall rate of return objective which requires that the allowed return must be commensurate with the efficient financing costs of the benchmark entity. It is also serves to minimise and difference between the allowed return on debt and the cost of debt of an efficient benchmark firm, in accordance with clause 6.5.2(k)(1).

The matching approach produces benefits for NSPs *and* consumers in that it reduces volatility for both. For example, the rate-on-the day approach and the trailing averaging approach both deliver the same long-term average allowed rate of return (by definition).[33] Consequently, consumers will expect to pay the same average amount in the long run. If the method for determining the regulatory allowance differs from the method that the NSP efficiently employs (or is even able to employ) there will inevitably be some periods during which the regulatory allowance exceeds the efficient cost and other periods where the regulatory allowance is insufficient.

Having periods of over-compensation and periods of under-compensation is clearly not in the long-term interests of consumers. During periods of over-compensation, consumers would be paying more than the efficient cost of debt. During periods of under-compensation, the NSP would have an incentive to delay capital expenditure and take other actions to recover the shortfall in compensation – none of which is in the long-term interests of consumers.

Moreover, any mis-match between the method used to determine the allowed return on debt and the method that is actually efficiently implemented by an NSP causes volatility in the residual cash flows that are available to equity holders.

In summary, matching the method for determining the allowed return on debt with the method that an efficient NSP would employ in the circumstances is not only required by the Rules, but is also in the long-term interests of consumers and other stakeholders.

Determining the efficient financing practice in the circumstances

The three acceptable methods that the AEMC has set out in the new Rules each correspond to one of the debt management strategies that were discussed at some length during the AEMC's rule change process:

- Clause 6.5.2(j)(1) sets the allowed return on debt to match a debt management strategy of raising all of the NSP's debt finance at the beginning of each determination.

- Clause 6.5.2(j)(2) sets the allowed return on debt to match a debt management strategy of staggered borrowing (e.g., each year issuing 10% of total debt requirements via 10-year debt instruments).

- Clause 6.5.2(j)(3) sets the allowed return on debt to match a debt management strategy of staggered borrowing plus a swap overlay to hedge the base rate (but not the debt risk premium) to the rate that prevails at the beginning of the regulatory period.

[33] That is, over a very long period, there would be convergence between the average of (a) the rate-on-the-day sampled every five years, and (b) the 10-year historical trailing average, also sampled every five years.

In summary, each of the three methods allowed by the AEMC matches a particular debt management strategy. The first task is to determine which of the three debt management strategies an efficient benchmark NSP would employ in the circumstances.

The strategy of re-financing 100% of total debt requirements at the beginning of each determination (i.e., the strategy that matches clause 6.5.2(j)(1)) is unavailable to many NSPs. Whereas it might be feasible for a very small NSP (such as a single gas pipeline) to issue all of its debt requirements over a short window, it is however challenging for many NSPs (and sets of NSPs that share the same regulatory period) to adopt that practice. That is, in many circumstances an efficient benchmark NSP would not (and indeed could not) refinance all of its debt requirements at the beginning of each regulatory period.

The strategy of staggered debt issuances with a swap overlay (i.e., the strategy that matches clause 6.5.2(j)(3)) is available to some NSPs but not all NSPs – depending on the circumstances and characteristics of the NSP in question. The constraining factor in this regard is the depth of the interest rate swaps market. This is a function both of the NSP's own size on what other businesses (energy NSP or otherwise) may be seeking to access the swap market at the same time. Whereas small to mid-sized NSPs may usually have sufficient access to swaps, the AEMC accepted that it is unlikely that very large NSPs could access the volume of swaps that they would require.

The strategy of staggered debt issuances with no swap overlay (i.e., the strategy that matches clause 6.5.2(j)(2)) is the strategy that is likely to be employed by very large NSPs. Indeed for some large NSPs the two alternative strategies are practically unavailable. Conversely, the staggered debt approach may be infeasible for a very small, or even mid-sized, NSP since debt issuance costs may make it inefficient to break a small debt issuance into the number of tranches that is assumed by a quarterly ten year trailing average method.

These matters of detail are complex and should be clearly determined in the AER guidelines preparation process rather than waiting until a review. Any deviations from the standard approach require the NSP to propose the debt management strategy that an efficient benchmark NSP would adopt in the circumstances. The regulatory task is then to determine whether the proposed strategy, or some other strategy, would be efficient in the circumstances. Having made that determination, the regulator would then select one of the three approaches for determining the allowed return on debt that have been approved by the AEMC in order to match the efficient debt management strategy.

Technical issues to be discussed by working group

The ENA recognises that there are a number of detailed technical issues in relation to the allowance for the return on debt. One such issue is the transition arrangements that may be required for transition to any new debt management strategy in accordance with the new Rules[34]. It may also be appropriate during the first round of guidelines to provide an option to retain an existing approach where there is uncertainty as to whether new approaches are appropriate for all businesses or all circumstances.

[34] See clause 6.5.2(k)(4).

Another technical issue concerns the potential annual updating of the allowance for the return on debt during a regulatory period. The new Rules allow for such annual updating to occur in clause 6.5.2(l). On this issue, the AEMC provides the following guidance:

> The final rule includes a provision to allow an annual adjustment to the allowed revenue for the service provider in circumstances where the regulator decides to estimate the return on debt using an approach that requires the return on debt to be updated periodically during the regulatory period. The formula for calculating the updated return on debt must be specified in the regulatory determination or access arrangement and must be capable of applying automatically.[35]

The AEMC recognises that annual updating is one way of aligning the incentives in relation to capital expenditure during the regulatory period – in the long-term interests of all stakeholders. The incentives that the return on debt may provide in relation to capital expenditure over the regulatory control period, including as to the timing of any capital expenditure is one of the factors that the regulator must have regard to under clause 6.5.2(k)(3).

At this point in the process, the ENA notes that there are a number of detailed technical issues for consideration in relation to the allowance for the return on debt. The ENA looks forward to participating in the Working Group to address those implementation issues.

6. Conclusion

The ENA notes the rate of return guidelines are only one of six major guidelines development projects underway.

The rate of return guidelines are a key aspect of the most significant reform to revenue regulation for a number of years. With substantial sums at stake for energy network businesses and their customers alike, the ENA submits that the only way to develop quality guidelines that provide the required level of certainty and transparency for the AER and all stakeholders is for all parties to engage with each other openly and collaboratively in a thorough investigation of the options available with a view to achieving major enduring improvements to the rate of return under the new Rules.

Identifying and implementing an optimal rate of return under the new Rules is in the interests of network service providers but also end customers who suffer both when allowances are too generous (through inflated prices) and when allowances are inadequate (through underinvestment and sub-standard service).

The ENA understands that the AER will convene Working Groups covering the following matters:

1. The overall approach (including finalising the list of considerations and considering how the multiple models are to be synthesised).

2. The cost of debt including a better specification of the ten-year trailing average.

Given the substantial quantity of work that each of these working groups has to perform in a compressed timeframe, the ENA welcomes the AER's steps towards convening and starting the work of those groups as soon as practicable.

[35] AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney, page 91.

The ENA raised verbally the notion that it may assist to achieve quality outcomes if the AER working groups and subgroups adopted an "own subject matter" approach. Naturally, before it could be adopted, all stakeholders would need to be comfortable with how such an approach would be implemented. This would require discussion as soon as practicable.

Expected form and contents of the guidelines

After the working groups have completed their task and the AER has completed the guidelines process, the ENA would envisage that the final rate of return guidelines should contain the following (as set out in the AEMC's Rule determination at page 69):

Section 1: Overall framework

- A final set of itemised considerations for the AER to apply when applying the guidelines (or deciding upon applications for departures from the guidelines) in individual network service provider determinations.

- A conceptual definition of the benchmark efficient entity.

Section 2: Return on equity

- A list of methodologies that are to be taken into account when making return on equity decisions (e.g. the Sharpe-Lintner CAPM, CAPM-Black, dividend growth models, Fama French Model etc).

- Details of which estimation methods, financial models, sources of market data and other evidence will be employed when the methodologies are implemented.

- A detailed description of the approach to distilling the information from these sources (i.e., the approach proposed in this paper by the ENA or a fully specified 'cross-check' approach).

- A worked example of the chosen approach to establishing the cost of equity, including estimates of all relevant parameters and a detailed description of how they were determined.

Section 3: Return on debt

- A list of alternative bases for determining the benchmark cost of debt including each of a fully specified:

    - trailing average method without swaps;
    - trailing average method with swaps; and
    - 'on the day' method.

- Whether transitional arrangements are required when a new methodology is adopted and how that should work.

- A worked example of each methodology showing how the approach would be implemented in a regulatory determination, including estimates of all relevant parameters and a detailed description of how they were determined.

- Details of which estimation methods, financial models, sources of market data and other evidence will be employed when the methodologies are implemented.

- The identification of any considerations or limitations on which approach(es) can or cannot be used by particular businesses.

Section 4: Preparing regulatory proposals

- A description of what material network service providers are expected to include for the cost of capital when lodging revenue proposals.

The ENA would also expect that the guidelines themselves would also include a detailed decision document explaining the rationale for all aspects of the guidelines. For emphasis, the guidelines should provide sufficient information regarding that exercise so that an interested party could apply it in order to arrive at a reasonable expectation of the rate of return that the AER would decide in any particular regulatory determination. This would be subject only to specific circumstances that would dictate otherwise (in which case, the AER is be required to explain the reasons and evidence why it was therefore appropriate to adopt a different approach).

Part B: Responses to the Issues Paper Questions

1. Principles Based Approach

Question 1

Do stakeholders consider that following these principles would promote the allowed rate of return objective? Should any of the principles be considered as more prominent or important than others?

Answer to Question 1

The ENA is supportive of a principled approach with an itemised list of matters to be considered. The term 'considerations' better describes the manner in which these items should be employed by the AER. These must be consistent with (and not simply repeat) the NEO/NGO, revenue and pricing principles and the allowed rate of return objective.

None of the considerations should be considered more prominent or important than the others. Rather, their collective application should be used to inform how the AER approaches the exercise of its discretion.

Question 2

Are there other principles or criteria which should be considered?

Answer to Question 2

The ENA's preferred list is as follows:

The *allowed rate of return objective* may be best met by considering the following:

(1) In selecting one or more methodologies alone or in combination (together with any associated estimation methods, financial models, market data and other evidence):
   (a) the methodologies should have sound theoretical integrity;
   (b) there is data available that enables the theory to be practically implemented without significant biases in the overall rate of return decision; and
   (c) the methodologies should at their current state of development perform well empirically.

(2) The methodologies are supported by robust analysis:
   (a) The analysis is transparent and replicable.
   (b) The analysis acknowledges and addresses uncertainty in parameter estimates used in methodologies.

(3) The methodologies are implemented in accordance with best practice consistent with the intention of the Rules:
   (a) The implementation uses reliable datasets.

(b) That manual adjustments (including filtering) should only be undertaken if there is an economic basis for doing so.

(4) The effect on incentives to finance efficiently.

(5) When there is a need to exercise regulatory judgement the reasons for the decision should identify:

(a) that there has been an exercise of regulatory judgement;

(b) what the total field of possibilities is in which the regulatory discretion was exercised;

(c) facts, reasoning and other relevant material to be taken into account in exercising discretion in relation to that aspect of the decision; and

(d) how the material was taken into account lead to the exercise of discretion.

Question 3

Do stakeholders have a broad preference for predictability or flexibility, and do these preferences differ at each level (the overall rate of return, the return on equity and debt, and at the parameter level) of the rate of return?

Answer to Question 3

The ENA notes that a regulatory framework can be "(un)predictable" in a number of different senses. For example, it may be that some aspects of the decision making process by the AER have been predictable because they have been mandated (e.g. the application of the Sharpe-Lintner CAPM, in some cases with 'locked in' parameters, and the 'on the day' method for debt) but at the same time, the actual allowances for debt and equity have been volatile and often varied considerably from the returns that would be required by investors in a benchmark efficient entity.

The guidelines setting process should aspire to using a broader range of inputs and flexibility between inputs to improve predictability of outcomes and a key way to achieve this goal is through detailed final guidelines with extensive and transparent reasoning.

Where the new Rules provide for multiple methodologies to be employed in combination or as alternatives, the guidelines should be consistent with that approach.

Question 4

To what extent should the guideline set out a pre–determined approach that can then be applied at each determination?

Answer to Question 4

The ENA considers that the guidelines should provide a high degree of detail, including a worked example of how a decision would be made, that should enable stakeholders to understand how a regulatory determination will be made (recognising that there may be circumstances germaine to a particular reset that justify the AER taking a different approach in which case the AER is required to explain the reasons and evidence for doing so).

However, that approach should not 'pre-determine' every aspect of the approach in the way, for example, the previous Chapter 6A of the National Electricity Rules did. Rather, the guidelines should provide for:

- A predictable and transparent approach to synthesising equity allowance methodologies in a manner that would be more fully specified as part of the deliberations of the Working Group concerning the overall approach and the equity approach; and
- Alternative debt models to be more fully specified as part of the deliberations of the Working Groups on debt generally and the trailing average method in particular.

In that way, there should be sufficient detail in the guidelines that:

- a network service provider could "accept" the guidelines knowing that its submission would be accepted by the AER; or
- for a network that considers a different approach should be taken, the guidelines should provide the details as to what material concerning that aspect of the proposal should be provided by the business and identify the considerations that the AER will apply in determining whether to accept that method under the Rules.

2. Key Concepts and Terms

Question 5

Aside from a balance between debt and equity financing, are there other characteristics of the way in which an efficiently financed entity would approach its financing task that should be considered in estimating the allowed rate of return?

Answer to Question 5

Yes, there are other characteristics of the way in which an efficiently financed entity would approach its financing task that should be considered in estimating the allowed rate of return. These should be based on the description of the benchmark efficient entity. In some circumstances there is a single uniform characteristic (for example that the benchmark efficient entity would have a credit rating of BBB+).

On the other hand, where there are likely to be a range of characteristics to the benchmark efficient entity (eg businesses of a different scale) or where a new approach appears preferable but, to date, is untested (eg the trailing average method), a discrete number of alternative characteristic practices should be included.

Question 6

Is it still appropriate to separate a conceptual benchmark from its practical implementation?

Answer to Question 6

Yes, it still appropriate to separate a conceptual benchmark from its practical implementation.

Question 7

Does the current definition reflect an appropriate level of detail for the conceptual definition? Are there other factors which should be considered?

Question 8

In relation to the current definition of the conceptual benchmark, is more or less detail preferable?

Answers to Questions 7 & 8

The current definition does not reflect an appropriate level of detail for the conceptual definition. The ENA's preferred definition is:

> "A 'pure-play' regulated electricity or gas network business operating within Australia without parental ownership providing the same scale and scope of services to the same customer base at the current time."

The ENA submits that the benchmark efficient entity should be considered to be subject to the same uncontrollable external circumstances (e.g., size, customer base, location) as the firm being regulated. For example, a gas pipeline asset serving two large industrial customers may not have the same risk profile as an electricity distribution business in an urban environment. These external circumstances are not within the internal efficient control of the actual business and therefore should also be applied to the benchmark efficient entity.

Question 9

Are the proposed factors reasonable?

Question 10

Are there other factors which should be considered?

Answers to Questions 9 & 10

Where possible the practical implementation should be firmly linked to the conceptual definition.

With respect to the "within Australia" aspect of the conceptual definition, two points can be noted. First, the Australian market has long relied on imported capital, but when businesses access international capital they typically do so with a careful eye on how to manage divergence between financial markets in Australia and the source country. The net effect is often to intentionally to remove inter-country risk. The mere fact that a network business has raised some of its debt overseas should neither be regarded as inefficient nor as evidence that there is a single global market for capital funding.

Second, the Australian market place for equity and debt does not always provide sufficient data for regulatory decisions to be made with an adequate certainty and detachment from the circumstances of the small number of firms that closely match the benchmark efficient entity's characteristics. In these circumstances, it may improve benchmark estimates to supplement the data or consider data drawn from other sources such as overseas equity markets or data from non-NSP firms. However, such data broadening needs to be done with care to ensure that there are not distortions *vis a vis* the benchmark efficient entity.

Question 11

Are there characteristics that differentiate the level of risk in the gas and electricity sectors, or between distribution and transmission networks?

Question 12

Are there other characteristics that should be taken into account when assessing the level of risk?

Question 13

To the extent that different risk levels exist, can these differences be estimated in a manner consistent with the regulatory principles outlined in section 2?

Answers to Questions 11, 12 and 13

There is a high degree of commonality between most gas and electricity network businesses and between distribution and transmission.

However, there are circumstances (e.g., a gas transmission business with a relatively small RAB supplying services to a small number of customers of high credit risk) that may warrant a departure from the characteristics that apply generally. This issue is one that should be further explored as part of the guidelines development process and individual members of the ENA are likely to have particular insights to contribute directly to that process.

This is an example of where the guidelines should explain how a business might make a regulatory proposal that departs from the standard approach(es) set out in the guidelines.

3. Overall Rate of Return

Question 14

To date our practice has been to estimate the allowed rate of return based on the standard WACC formula. Should we continue with this, or if not, what alternative approaches should be explored?

Answer to Question 14

It is important to note that there is in fact no "standard" WACC formula in the sense of one formula that is universally agreed to provide the most realistic measure of the cost of capital. In implementing the WACC formula, the regulator should have regard to issues of internal consistency as required by the Rules. For example, the allowed return on equity and debt should both be determined on the basis of the same assumed gearing.

Question 15

How can overall rate of return considerations be used under the new rule framework? This may include consideration of the relevance of the methodologies identified above (or others not yet identified), and how such information could be used.

Answer to Question 15

The considerations should apply at the overall decision making level rather than to individual methodologies in isolation. None of them should be applied as 'absolute' criteria such that a particular approach either satisfies the criteria or does not satisfy it. Nor should they apply as a 'score sheet' whereby different approaches are mechanically scored in terms of how many criteria they are considered to satisfy.

Rather, these matters should be considerations for the AER in the overall decision to be made.

4. Return on Equity

Question 16

Are the assessment criteria presented in section 3.1 an appropriate basis for evaluating the cost of equity methodology in order to meet the allowed rate of return objective?

Answer to Question 16

See the answers to Questions 1 & 2.

Question 17

What overall cost of equity methodology best meets the allowed rate of return objective?

Answer to Question 17

No single cost of equity methodology best meets the allowed rate of return objective. The overall approach should be to consdier and synthesise all of the available data giving each element appropriate weight.

The ENA does not consider that any of the approaches for estimating the required rate of return on equity should be regarded as the “standard” formula. The particular specification of the Sharpe-Lintner CAPM that has most commonly been used in recent times in Australia arose for specific historical reasons. There has already been variation on that approach in Australia and abroad and, therefore, the past practice should not be regarded as ‘standard’.

The new Rules provide for a timely updating and broadening of the approaches used to take account of a much richer panel of techniques and other evidence that are now available.

Question 18

What individual cost of equity model best meets the allowed rate of return objective?

Question 19

What other evidence (estimation methods, financial models, market data and other estimates) is relevant to the determination of the cost of equity?

Answers to Question 18 & 19

There is no individual cost of equity model that best meets the allowed rate of return objective. A number of models have strengths and weaknesses that mean that they should not be used in isolation or as the primary model when establishing the return on equity. Rather a combined consideration of these models is necessary to meet the allowed rate of return objective.

The Issues Paper discusses a "cross-checks" approach. The ENA has reservations about that model because it is yet unclear how it could work to properly take account of the relative merits of all the available models. The ENA also has initial concerns that a "cross-checks" approach (at least as currently specified) may not provide the necessary level of transparency and predictability concerning the exercise of regulatory discretion.

The ENA proposes that the following approach should be explored:

> Step 1: Identify the relevant methods, models, data and evidence;
>
> Step 2: Compute the best estimate of the required return on equity for the average firm using each approach/piece of evidence, and distil from that an estimate of the required return on equity for the average firm; and
>
> Step 3: Compute the best estimate of the required return on equity for the benchmark firm using each approach/piece of evidence, and distil from that an estimate of the required return on equity for the benchmark firm.

The body of this submission further explains how this approach would be implemented and the ENA proposes that this approach should be built upon during the consultation process to deliver a fully specified approach in the final guidelines.

5. Return on Debt

Question 20

What are the advantages and disadvantages of portfolio approaches compared with the current "on the day" approach to the return on debt?

Answer to Question 20

Developing a full answer to this question is a key task to be undertaken by the AER and all stakeholders as part of the guidelines development process. However, the ENA notes that the guidelines adopted should preserve the option for NSPs to propose alternative cost of debt approaches. The 'on the day' approach has been used for a long period and its strengths and weaknesses are relatively well known. The implementation of that approach is reasonably well understood, on the basis of regulatory precedent and Tribunal guidance.

Nevertheless, a number of limitations have been identified with the application of the 'on the day' approach. The efficient debt management strategy that is implied by the 'on the day' approach cannot be implemented by the benchmark efficient NSP in some cases. This results in a differential between the allowance for the return on debt and the debt service costs of an efficient benchmark entity. Consumers are likely to be adversely affected by the existence of such a differential because:

- When the efficient financing costs fall below the 'on the day method' consumers are paying prices higher than is necessary for an efficient outcome and there is the potential (although limited given the very long life of energy assets) for the difference to stimulate over-investment; and

- When efficient financing costs exceed the regulatory allowance, efficient discretionary investments are discouraged and uncompensated risks arise in relation to minimum capital investments that are mandated by regulatory standards leading to long-run risks and distortions.

Trailing average models with, and without, swaps should be explored as part of the guidelines setting process as potential solutions to these key weaknesses. An important task of the Working Groups on debt will be to determine how these two methods can be best designed to address the above weaknesses as well as consider how a cost of debt approach should compensate NSPs for efficient financing costs, without distort efficient funding decisions.

It does not follow, however, that the existing 'on the day' approach should be wholly dispensed with because it is not necessarily the case that the new approaches will be optimal for all benchmark entities – either initially or in the long term.

Question 21

How do these approaches align with the principles of an efficient financing benchmark, as set out in section 4.2?

Question 22

What are the characteristics of efficient and prudent financing practices that should be taken into account under a benchmark framework?

Answers to Questions 21 and 22

The characteristics of the efficient and prudent financing practices that should be taken into account include:

- Managing refinancing risk;
- Enabling there to be sufficient timely new capital to fund new investments;
- Managing interest rate risk;
- For international portfolios of debt, managing exchange rate risks;
- Minimising the overall costs by adopting optimal bond issue sizes, coupon rates, durations and transactions costs; and
- Optimal transition paths from any sub-optimal practices that were induced by the former regulatory arrangement to optimal practices going forward.

Not all benchmark efficient entities would manage the above considerations in exactly the same way and it is not yet clear which alternative methods will best achieve the allowed rate of return objective. One of the key tasks for the AER and stakeholders in the guidelines development process is to evaluate the relative merits and optimal circumstances in which trailing averages with or without swaps can or cannot efficiently be used instead of the ‘on the day’ method.