Address all correspondence to
Locked Bag 14090
Melbourne Victoria 8001

11 October 2013

Mr Warwick Anderson
General Manager – Network Regulation Branch
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Dear Mr Anderson

Please see attached submission on behalf of CitiPower, Powercor and SA Power Networks, in response to the AER's Draft Rate of Return Guideline.

Please do not hesitate to contact Mark de Villiers on (03) 9683-4907 or Patrick Makinson on (08) 8404-5865 if you have any questions.

Yours sincerely

Brent Cleeve
GENERAL MANAGER REGULATION
CitiPower & Powercor

Sean Kelly
GENERAL MANAGER CORPORATE STRATEGY
SA Power Networks

Introduction and Overview

CitiPower, Powercor and SA Power Networks (**collectively, the Businesses**) welcome the opportunity to respond to the AER's Draft Rate of Return Guideline (**Draft Guideline**).

The rate of return guidelines have a critical role to play in the regulatory framework for energy network businesses. The guidelines provide an important opportunity for the AER to:

- carefully consider its approach to the rate of return, and provide a clear indication to stakeholders as to the approach it will take; and
- provide a reasonable level of certainty around its future approach to the rate of return.

The importance of establishing a robust rate of return framework cannot be overstated. A tremendous amount of infrastructure investment is likely to be required in the near future, both in Australia and internationally, all of which will be competing for capital. It is therefore critical that the rate of return guidelines provide an appropriate foundation to allow energy networks to compete fairly for this limited pool of capital.

The Businesses are concerned that the Draft Guideline does not provide stakeholders with sufficient certainty around the AER's likely future approach to setting the rate of return. This is particularly apparent in the AER's proposed approach to determining the return on equity, where it is far from clear how the "foundation model" approach will apply in practice. The Businesses urge the AER to set out a complete non-binding worked example of the final cost of equity approach, to enable stakeholders to understand its practical operation.

Moreover in a number of areas, the Draft Guideline does not reflect the most up-to-date and robust empirical evidence and relies on methods that have known deficiencies.

The key concerns of the Businesses in relation to the Draft Guideline are as follows:

1. In relation to the return on equity, the Draft Guideline in unclear and does not provide sufficient information to allow investors to estimate the return on equity that is likely to be allowed under current market conditions.
2. The AER's proposed 'foundation model' approach to estimating the return on equity creates a material risk that this approach will not meet the rule requirements.
3. The proposed use of the Sharpe-Lintner CAPM as the 'foundation model' does not give appropriate recognition to the fundamental weaknesses of this model relative to other sources of information which the AER has sought to place limited or no weight on. The AER's proposed approach to the return on equity places insufficient weight on market evidence. Further, we are very concerned that the AER approach will not give sufficient or appropriate weight to the Black CAPM and the Dividend Growth model and no weight to the Fama French model.
4. The 7-year term for cost of debt does not reflect the efficient financing practices of network service providers. A reduction in the assumed term of debt to 7 years will increase refinancing risk that is not being compensated elsewhere.
5. The available evidence does not support more than a BBB rating for a benchmark efficient network service provider. A BBB rating reflects the change in the risk profile of network service providers in recent years.

6. The AER's basis for estimating theta and therefore gamma is inconsistent with the rules in that the rules do not provide sufficient latitude for the 'new conceptual approach'. Market based evidence continues to support theta of 0.35 and gamma of 0.25.

7. RAB multiples do not provide a valid cross-check and support to the AER's proposed methodology.

The Businesses have read the Energy Networks Association (**ENA**) submission in response to the Draft Guideline, and fully endorse that submission. The ENA submission presents extensive evidence on each of the above points which should be carefully considered by the AER in formulating its final guideline.

The purpose of this submission is to make some additional points in relation to these matters, based on the Businesses' own experience. The remainder of this submission addresses each of the above points in turn.

1 Providing for transparency and certainty around determination of the rate of return

The AER states that the aim of its guideline is:[1]

> *…to provide sufficient detail to allow a service provider or other stakeholders to understand our approach and how we will exercise our discretion consistent with the rate of return objective.*

The Businesses agree that this is an important objective. The guideline should be seen by the AER as an opportunity to provide stakeholders with some certainty around how it will approach determination of the rate of return.

Consistent with this objective, the guideline should contain sufficient information to allow investors to estimate the rate of return that is likely to be allowed in any given reset process. The guideline should be capable of being readily applied to estimate an indicative rate of return at any point in time.

However in its current form, the Draft Guideline does not contain sufficient information to allow for a reasonable estimate to be made of the likely return on equity.

The Businesses are concerned that the proposed "foundation model" approach lacks transparency, and therefore if this approach is persisted with in the final guideline, it will be difficult for stakeholders to understand how the rate of return will be determined in any given reset process. The foundation model approach assigns some weight to some evidence by allowing that evidence to change the values that would otherwise have been adopted for beta and MRP and then assigns weight between the SL CAPM and all other evidence via the selection of the widths of the ranges for beta and MRP. This mechanism for weighting the various pieces of evidence to distil a final allowed return on equity is highly complex and not at all transparent.

Due to the lack of transparency in the proposed foundation model approach, it will be difficult for stakeholders to project, with any certainty, how the return on equity component of the overall rate of return will be determined.

[1] Explanatory Statement, p 19.

In short, adopting the foundation model approach to the return on equity would appear to be fundamentally inconsistent with the AER's stated aim of providing greater transparency to stakeholders around how the rate of return will be determined.

2 The foundation model approach – consistency with the Rules

The Businesses are concerned that the proposed foundation model approach is not consistent with the new framework in the Rules for determining the rate of return.

The intention of the new rate of return framework is that there is scope for the regulator to take into account a wide range of models and evidence, and not be bound to a single model such as the SL-CAPM. The AEMC stated in its final rule determination:[2]

> *To determine the rate of return, the regulator is also required to have regard use 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 analysis to estimate the rate of return.*

Clearly under the new framework there is scope for the AER to exercise judgment in determining which models and evidence will be relied in any particular case. However in exercising this judgment in any particular case the AER must have regard to all relevant methods, models, data and other evidence. The AEMC makes this clear in their final rule determination, where it is stated that:[3]

> *The common framework to be implemented requires the regulator to make an estimate of the rate of return that is consistent with an overall objective. The objective is focused on the rate of return required by a benchmark efficient service provider, with similar risk characteristics as the service provider subject to the decision. Under this approach the regulator has the flexibility to adopt the approach it considers appropriate to estimate the rate of return,* ***provided it considers relevant estimation methods, financial models, market data and other information****. This is so that the best estimate of the rate of return can be obtained that reflects efficient financing costs of the service provider at the time of the regulatory determination.* [emphasis added]

It would be inconsistent with this stated intent for the guidelines to in any way restrict the set of relevant models that may be taken into account in making determinations, or for the guidelines to give any model a privileged position. This would mean that if the guidelines are being followed in making each determination, the AER would not be properly considering all relevant estimation methods, financial models, market data and other information.

However, this is precisely what the Draft Guideline does through the foundation model approach to the return on equity. The foundation model approach gives primacy to one particular model (the SL-CAPM), entirely excludes another model from consideration (Fama French) and provides a secondary role for others.

---

[2] AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 29 November 2012, p 67

[3] AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 29 November 2012, p iii.

The Businesses are therefore concerned that the AER's proposed approach to determining the return on equity is not consistent with the requirements of the new Rules framework.

3 The foundation model approach – relative weighting of models

The Businesses also consider that the proposed weighting of the various methods and models under the AER's foundation model approach does not reflect their relative strengths.

The AER has elected to use the SL-CAPM as its foundational model, with more limited weight to be given to other sources of information such as market evidence, the Black CAPM, and the dividend discount model. This proposed weighting does not reflect the fundamental weaknesses of SL-CAPM relative to other sources of information.

For example, the SL-CAPM should not be assumed to be superior to the Black CAPM. The difference between the SL-CAPM and the Black CAPM is that the Black CAPM is a more general version of the model, in which the expected return is the sum of the return on an asset with zero systematic risk (which is called the zero beta asset) plus a premium for bearing systematic risk. The Black CAPM was derived under less restrictive assumptions than the SL-CAPM so is relatively more likely to capture the way assets are priced in reality. The reliance on less restrictive assumptions in fact makes the Black CAPM more theoretically robust. Additionally, the empirical performance of the Black CAPM is superior to that of the SL CAPM when applying regression-based estimates of equity beta.

Similarly, it should not be assumed that the Fama French model (which the AER intends to give no weight) is inferior or lacking a proper theoretical basis. The Fama French model incorporates two additional risk factors that not accounted for in the SL-CAPM – i.e. the size factor and the book-to-market factor. This model is a product of decades of research into developing and empirically testing theories that explain why the size and book-to-market factors are able to explain stock returns.

The Businesses acknowledge that the SL-CAPM may have the advantage of being a relatively simple model to apply. However, simplicity should not be such an important consideration that the simplest model is elevated to the status of "foundation model".

For the reasons set out in the previous section, the Businesses consider that no one model should be identified as the primary or foundation model. The discussion in this section is an illustration of why the SL-CAPM can certainly not be given this role, given the relative weaknesses of this model compared to the alternatives.

The Businesses consider that a better approach to determining the return on equity would be the "multi-model approach" as advocated by the ENA. This approach would not involve designating any particular model as the preferred model in all circumstances. Rather, the "multi-model approach" would allow for a balanced consideration of the evidence from all models, and a transparent process for determining the return on equity based on that evidence.

Further details on the multi-model approach, and the reasons why the foundation model approach should not be adopted, are set out in the ENA submission.

4 Assumed term of debt

The proposed shortening of the assumed term of debt, from 10 to 7 years, does not reflect the efficient financing practices of network service providers.

The ENA has previously provided the AER with extensive analysis of business' actual financing practices. This included separate analyses by PwC and CEG which indicated that the average term of debt for similar businesses is at least 10 years.

While the AER has criticised these analyses, both PwC and CEG have responded fully to the AER's criticisms in further reports for the ENA. In the case of PwC, this has involved a careful reconciliation of the data sources used in its analysis, which demonstrates that the AER's stated concerns were in fact immaterial.

In its Draft Guideline, the AER relies on analysis of business' actual financing practices conducted in 2009, which it says shows an average effective term of debt of 7.37 years. However, for the reasons set out in the ENA submission, the AER's reliance on this 2009 analysis is flawed, and is fundamentally inconsistent with the adoption of a trailing average cost of debt and the implementation of this in the Draft Guidelines.

In the case of the Businesses, an assumed term of debt of 7 years simply does not reflect actual practice. The average original term to maturity of debt currently held by the Businesses is 9.3 years.

Therefore, the Businesses do not support the proposed shortening of the assumed term of debt, from 10 to 7 years.

5 Assumed credit rating

The position in the Draft Guideline in relation to the assumed credit rating does not reflect the evidence presented in the AER's explanatory statement. The evidence presented in the explanatory statement supports a benchmark credit rating no higher than BBB.

Table 7.2 of the explanatory statement shows a clear downward trend in median credit ratings for Australian regulated energy networks. The AER's analysis (as presented in Table 7.2) shows that as the time period becomes more recent, the median credit rating is gradually downgraded, from "BBB+" (over the period 2002-2012) to "BBB+, Negative Watch" (over the period 2002-2013), and finally to "BBB" (June 2013).

The AER's analysis clearly indicates a change in the risk profile of network service providers in recent years. While in previous years the risk profile of businesses may have supported a BBB+ credit rating, the recent change in risk profile means that only a credit rating of BBB can be supported.

This is consistent with the analysis of Kanangra Ratings, submitted by the ENA. Kanangra's cashflow analyses based on recent decisions for energy network businesses are consistent with a marginal Standard and Poor's rating of between BBB- to BBB.

However the Draft Guideline, in setting an assumed credit rating of BBB+, does not reflect the evidence submitted by the ENA, nor does it reflect the evidence set out in the AER's own explanatory statement.

The Businesses consider that the available evidence supports a benchmark credit rating no higher than BBB.

6 Implementation of the trailing average approach

Under the simple average approach it will be impossible for a distribution business to effectively hedge its cost of debt when its RAB is growing. As an example, if in the first year of the next regulatory period, the total benchmark debt is $700m, under a 7-year trailing average a business would refinance $100m of its debt. If the RAB grows at 5% pa, then seven years later the total benchmark debt would be $985m. Seven years later, the trailing average will apply the first year return on debt to $141m of debt (1/7th of $985m). Therefore $41m of the $141m of benchmark debt will be mismatched under a simple average approach. The Businesses therefore request that the AER allow the businesses to propose how the trailing average is weighted rather than specifying a simple average in the Guideline.

The Businesses also note, that their debt maturity profile will not allow 1/7th of debt to be refinanced each year. Therefore, the Businesses are likely to continue to issue floating rate debt and hedge the interest rate. In order to ensure that their interest rate risk is appropriately managed, the Businesses will effectively hedge interest rate risk by adopting a hedging strategy using a 7-year trailing average approach. There will have to be a significant increase in the number of interest rate swaps transacted so as to be able to match the 1/7th hedging profile across the debt facilities. The increase in hedging transactions will also lead to incremental back-office costs in attending to payment processing and accounting, including hedge effectiveness calculations. The Businesses will be proposing additional debt raising allowances to compensate for these efficient incremental costs.

7 Timing of the averaging period

The draft Guideline indicates that the AER will be determining the cost of debt in the averaging period which will be at least six months prior to the start of the regulatory year to which it applies. Investors require a premium (or commitment fee) to be paid for by committing to the provision of funds between date of pricing and provision of funds, unless the time period is very short (one week to no longer than two months depending on the particular market).

Similarly, there are additional costs in undertaking forward start interest rate swaps compared to undertaking forward start swaps on an immediate start basis. Accordingly, an allowance should be included in the determination of the cost of debt for the fact that a distribution business will incur additional costs in funding and hedging its interest rate risk in advance of the start of the regulatory year.

For example if an interest rate swap for a tenor of 7 years was transacted on a forward start basis the following additional costs would be incurred on the business:

Swap Tenor	Spot Rate	Swap rate 6 months forward	Swap rate 9 months forward	Swap rate 12 months forward	Swap rate 18 months forward
7yrs	4.13%	4.33%	4.43%	4.54	4.73%
Additional cost		+0.20%	+0.30%	+0.41%	+0.60%

This cost can be reduced by allowing the averaging period to be closer to the start of the year to which it applies. The Businesses urge the AER to reconsider the allowed timing of the averaging period.

8 Imputation credits

The Businesses are concerned that the AER's "new conceptual framework" for establishing gamma is both conceptually flawed and potentially inconsistent with the requirements of the Rules.

The AER proposes a new approach to determining theta (the value of distributed imputation credits) which is primarily based on cash flow analysis, and also analysis of equity ownership. The AER refers to this new approach throughout its explanatory statement as the "cash flow interpretation of the value of imputation credits" or the "equity ownership approach".

However, the AER's "equity ownership" approach does not provide any relevant empirical evidence as to the value of imputation credits. The value of imputation credits is fundamentally a market-based concept, and can only be properly measured by market-based studies.

Much of the evidence referred to by the AER in its explanatory statement relates to the rate of redemption (or potential rate of redemption) of imputation credits. This evidence at best indicates what a reasonable upper bound for theta might be. However it cannot be used to derive a point estimate of theta.

The best available evidence in relation to the value of imputation credits comes from market-based studies. The AER therefore cannot simply dismiss the evidence provided by these studies. Just because different studies have produced different values does provide a basis for summarily dismissing this form of evidence or giving it limited weight – these difference are likely to reflect a range of factors, including differences in time periods used and developments in methodology.

The AER's new conceptual framework, which places greatest weight on evidence of credit redemption rates and very little (if any) weight on market-based studies of value, is inconsistent with the requirements of the Rules. The new Rules confirm that theta must be estimated as the *value* of imputation credits, rather than via a cash flow tracking analysis of the average utilization or redemption of the credits. This is the proper economic basis for theta and the basis on which theta has always been estimated, and so no new framework is required or appropriate.

The Businesses consider that the value for theta should continue to be based on market-based studies of the value of imputation credits, consistent with the requirements of the Rules and recent practice.

The ENA submission provides evidence that the best estimate of value of imputation credits (theta) is 0.35, which implies a value for gamma of 0.25. This reflects the most recent and robust market evidence. This value is consistent with the position of the Tribunal in *Re Energex*,[4] and is the value that has been adopted by the AER in recent determinations.

[4] Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9.

9 RAB multiples as a cross check

The Businesses do not support the use of RAB multiples as a valid cross-check and support to the AER's proposed methodology. This is because rate of return is only one of many factors that affect RAB multiples. It would therefore be incorrect to conclude that a RAB multiple above 1.0 indicates that recent AER rate of return determinations are not below the efficient financing costs of a benchmark efficient entity. Using such RAB multiples is only likely to mislead the rate of return determination process.