Proposal to change the National Electricity Rules in respect of the calculation of the Return on Debt

Proposal by Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths

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GLOSSARY OF TERMS

AER	Australian Energy Regulator
AEMC	Australian Energy Markets Commission
GFC	Global Financial Crisis
IPART	Independent Pricing and Regulatory Tribunal
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules (also referred to as "the Rules")
NSP	Network Service Provider (a monopoly electricity distributor or transmitter)
WACC	Weighted Average Cost of Capital

EXECUTIVE SUMMARY

This document is a proposal to the Australian Energy Markets Commission (AEMC) to change the National Electricity Rules (the Rules) in respect of the calculation of the regulated return on debt.

This proposal represents the views of the seven sponsoring companies who constitute the Rule Change Committee: Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths. These companies are members of the Energy Users Association of Australia.

The member companies of the Committee include four of Australia's 20 largest listed companies and together the member companies cover a broad cross-section of the Australian economy including manufacturing, resources, property and retail.

The members of the Committee have become concerned about electricity price increases. Rising network charges resulting from higher capital expenditure and higher regulated rates of returns have been the main factors. The Committee examined this and concluded that failures in the design and conduct of regulation have played a significant part in this outcome. It has delivered excessive over-investment and windfall gains for the owners of the regulated network service providers (NSPs). Addressing these failures will help to ensure a sustainable and reliable industry that charges for its services fairly.

More than 160 rule change proposals have been submitted to the AEMC. This proposal is the first from energy users. The purpose of this proposal is to address what the Committee considers to be one of the main failures of the Rules: the methodology for the calculation of the regulated return on debt. The return on debt forms the largest part of the return on assets, which in turn is the largest part of the regulated income that monopoly NSPs recover from their customers.

The Committee considers that the existing methodology and its implementation is flawed. There is compelling evidence that privately owned electricity NSPs – who constitute around 25% of the industry (by assets) have a cost of debt that is around 250 basis points lower than the return on debt that they have been allowed to charge users. For the remaining 75% of the industry - government-owned NSPs whose debt is provided by jurisdictional governments – this gap rises to around 350 basis points.

If the allowed return on debt was based on the actual cost of debt, NSP income in 2011 would be around $1.2bn or 12% lower than it is now. This translates into average retail electricity price decreases of around 7%. This $1.2bn gap is excess profits for the government and private owners of the NSPs, at energy users' expense.

The Committee considered different solutions to the specification of the regulated return on debt to address this flaw. The Committee's guiding principle is that the return on debt, whether for government or privately owned network service providers, should reflect the actual cost of debt. Regulated network service providers should, in principle, not profit on the debt they raise. This principle is well accepted in the regulation of NSPs in America, Britain and elsewhere.

In the application of this approach, the Committee recommends that for privately owned network service providers, the return on debt should be based on an index that reflects fair value estimates of the yield to maturity on investment grade corporate debt issued in Australia. Such an index will provide an incentive on these NSPs to minimise their debt costs. Preferably the index would be based on debt issued by Australian NSPs, but illiquidity in this market suggests an index based on a broader bond market is preferable. The Committee recognises that this approach will benefit NSPs, but nonetheless recommends it in view of the incentives it provides NSPs to control their debt costs.

For government-owned NSPs, the Committee considers that it would be inconsistent to allow these NSPs to charge users for a cost of debt as if they were privately owned when they obviously are not. Such an approach – which currently applies – contravenes the Competition Principles Agreement. It is also unsupported by economic theory.

The Committee considered whether the cost of debt to government-owned NSPs should include a notional fee to compensate jurisdictional governments (and hence tax payers) for the use of the governments' AAA credit ratings by their NSPs. Such an arrangement exists, for example, in the fee that the Commonwealth Government charges to banks for the credit guarantees that it has provided to them since the Global Financial Crisis.

However, on balance, the Committee concluded that such a fee could not be justified. This is because jurisdictional governments are already deriving extraordinary returns from their ownership of NSPs. For example, based on data provided by the New South Wales Auditor General, the New South Wales Government achieved a return on its investment in its NSPs of more than 29% in 2010. This is around three times higher than what the AER considers to be a reasonable return on investment. A large part of this higher return is

explained by the governments' ability to collect the profits as well as tax on profits delivered by its NSPs, and its practice of adding a margin on to the cost of debt that it provides to its NSPs.

The Committee suggests that the delivery of the National Electricity Objective (NEO) requires that the AEMC evaluates rule changes holistically. As such, taking account of the extraordinary returns that jurisdictional governments are achieving from their NSPs, the Committee suggests that delivery of the NEO requires that government owned NSPs should only charge users for the actual cost of the debt raised by their jurisdictional government owners. The Committee also notes that such actual cost approach will have no detrimental effect on incentives, since the jurisdictional government treasuries - not the NSPs - arrange and manage NSP debt.

The application of the Committee's approach in 2011, would deliver a return on debt for privately owned NSPs of 7.6%, and for government owned NSPs of around 5.6%. If, hypothetically, this approach was applied to all NSPs in 2011, regulated revenues would be $1.1bn or around 11% lower. This would result in average retail electricity prices being around 6.3% lower than they are now. However, the Committee is not proposing to re-open existing regulatory decisions, but rather that its proposed approach would apply to decisions by the AER which are made after the revised Rules take effect.

The Committee notes that the AER has agreed that changes need to be made to the return on debt and it has recommended that such changes should be resolved through reviews that the AER will periodically conduct. However the evidence is that the return on debt outcomes that have been delivered so far in both electricity and gas do not reflect a lack of regulatory discretion. Accordingly, to be assured of appropriate outcomes in this area the Committee considers that the methodology for the return on debt should be specified in the Rules. This is an urgent issue and clear resolution rather than deferral to indeterminate future regulatory reviews is preferable.

Finally, the Committee's proposals challenge the entrenched policy that discriminates in favour of government owned NSPs. A review adjudicated against the delivery of the NEO, should decide this challenge. A review by the AER – which would be accountable to the Rules not the NEO - could not contemplate this issue.

1 Introduction

This document is a proposal to change the National Electricity Rules ("the Rules"). The proponent of this proposal is the Rule Change Committee ("the Committee"). The Committee has made this proposal on behalf of its members who include Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths. These companies are members of the Energy Users Association of Australia.

The proposal in this document relates specifically to the rules for the calculation of the Return on Debt which is the largest element in the calculation of the Weighted Average Cost of Capital (WACC). The WACC sets the Return on Assets which is the largest single element of regulated revenues. The Return on Debt therefore has great significance to the Committee and also to NSPs.

The Committee contends that the rules in this area fail to deliver the National Electricity Objective (NEO) as stated in the National Electricity Law (NEL). This is because the Return on Debt determined by the Australian Energy Regulator pursuant to the Rules, has been significantly higher than the actual cost of debt. This has resulted in excessive profits to network service provider (NSP) shareholders, higher prices for electricity users and perverse incentives for inefficient over-investment.

The proposal is set out as follows:

- Section 2 provides a statement of the problem. This provides evidence to support our views;
- Section 3 proposes solutions and explains why the Committee suggests these solutions;
- Section 4 describes the specific changes to the Rules that the Committee is seeking in order to implement its proposal;
- Finally, Section 5 provides a cost/benefit analysis and an explanation of why the Committee considers that its proposals better deliver the NEO.

2 Statement of the problem

This section presents evidence that there is a problem with the way that the Rules require the Australian Energy Regulator (AER) to establish the regulated return on debt. It begins with a description of the relevant clauses in the Rules, followed by our interpretation of those clauses. It then provides evidence of the outcomes that have been delivered pursuant to those clauses. The final sub-section identifies the specific flaws in the Rules that have led to those outcomes.

2.1 Requirements in the Rules

This sub-section describes the various requirements in the Rules affecting the calculation of the Return on Debt. The presentation of these requirements starts at the highest level statement of objective established in the National Electricity Law ("the Law") and progressively works down to the detailed requirements described in certain clauses of the Rules.

The National Electricity Objective (NEO) established in the Law is the guiding objective of the Rules.

The NEO is *"efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to (1) price, quality, safety, reliability, and security of supply of electricity; and (2) the reliability, safety and security of the national electricity system."*

The Rules are subservient to the NEO. Changes to the Rules, such as we are proposing, are justifiable if they promote the achievement of the NEO. The Rules contain various clauses that specify how the AER is to determine the Return on Debt. The Return on Debt forms part of the calculation of the Weighted Average Cost of Capital (WACC) that is used to determine the Return on Assets.

The relevant clauses are set out in Chapter 6 (for distribution network service providers) and they are approximately mirrored in Chapter 6A (for transmission network service providers). The main difference in Chapter 6 is that the AER is authorised to revise various parameters that affect the return on debt during each price/revenue control decision. Under Chapter 6A this is not allowed (the values are to determined in separate review of the cost of capital that the AER undertakes periodically). There are also differences in

clause numbering. In the rest of this section, for the sake of brevity, the relevant clauses in Chapter 6 are referred to, but the same analysis and conclusions apply to the relevant clauses of Chapter 6A.

Clause 6.5.2 requires that the Rate of Return must be based on the post-tax WACC. It specifies the calculation of the WACC, and as part of this, the Return on Debt. The Return on Debt is defined as the Risk Free Rate plus the Debt Risk Premium.

A general requirement on the Rate of Return is set out in Clause 6.5.2 (b):

"*The rate of return for a Distribution Network Service Provider for a regulatory control period is the cost of capital as measured by the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk*"

The Rate of Return is the sum of the Return on Equity and the Return on Debt (each weighted respectively by the relative proportion of equity and debt to the sum of equity and debt).

In Clause 6.5.4 (a) the AER is required to review various parameters that affect the calculation of the Rate of Return by 1 March 2009 and in five yearly intervals from that date. The parameters included in this review that affect the Return on Debt include the nominal risk free rate, the maturity period and bond rates.

Clauses 6.5.4 (e)(1), 6.5.4 (e)(2) and 6.5.4 (e)(3) provides specific guidance on the issues that the AER is required to have regard to in undertaking a review of these parameters:

- the need for the rate of return to be a "*forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in providing standard control services*";

- the need for the return on debt to "*reflect the current cost of borrowings for comparable debt*"; and

- "*the need for the credit rating levels or the values attributable to, or the methods of calculating, the parameters (referred to in paragraph (d) that vary according to the efficiency of the Distribution Network Service Provider to be based on a benchmark efficient Distribution Network Service Provider*".

Clause 6.5.4 (g) allows the AER to vary a method, value or credit rating level from that set in an AER Rate of Return review if there is persuasive evidence to do this.

Clause 6.5.2 (e) provides specific instruction on how the AER is required to determine the Debt Risk Premium. It requires that:

"The debt risk premium for a regulatory control period is the premium determined for that regulatory control period by the AER as the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate and a credit rating from a recognised credit rating agency."

Finally, Clause 6.5.2 (b) provides specific instruction on how the AER is required to determine the Risk Free Rate. It requires that:

"The nominal risk free rate for a regulatory control period is (unless some different provision is made by a relevant statement of regulatory intent) the rate determined for that regulatory control period by the AER on a moving average basis from the annualised yield on Commonwealth Government bonds with a maturity of 10 years using:

(1) the indicative mid rates published by the Reserve Bank of Australia; and

(2) a period of time which is either:

(i) a period (the agreed period) proposed by the relevant Distribution Network Service Provider, and agreed by the AER (such agreement is not to be unreasonably withheld); or

(ii) a period specified by the AER, and notified to the provider within a reasonable time prior to the commencement of that period, if the period proposed by the provider is not agreed by the AER under subparagraph (i),and, for the purposes of subparagraph (i);

(iii) the start date and end date for the agreed period may be kept confidential, but only until the expiration of the agreed period; and

(iv) the AER must notify the Distribution Network Service Provider whether or not it agrees with the proposed period within 30 business days of the date of submission of the building block proposal.

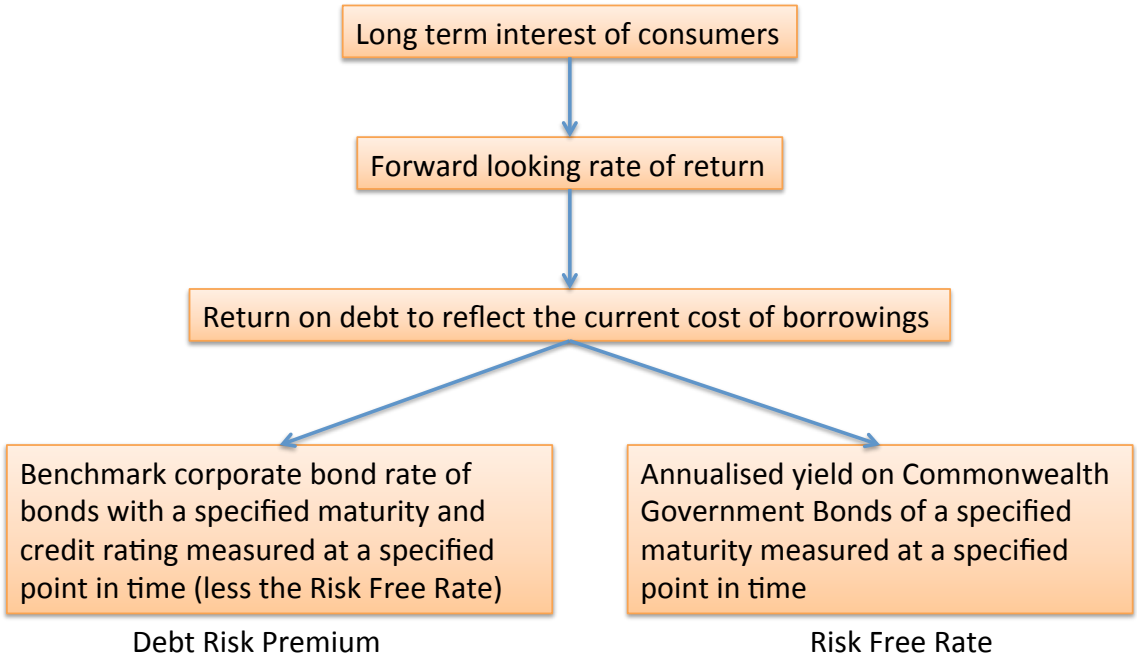
2.2 Our interpretation of the requirements in the Rules

Figure 1 below presents a graphical depiction of the requirements in the Rules affecting the calculation of the Return on Debt. This illustration shows that the long term interest of consumers (the NEO) is translated in the Rules as a requirement that the Rate of Return (which encompasses the Return on Equity and the Return on Debt) is "forward looking". This is then described as a requirement that the Return on Debt reflects the "*current cost of*

borrowing". This is then translated into specific requirements for the calculation of the Debt Risk Premium and the Risk Free Rate, the sum of which is the allowed Return on Debt.

It is important to note that the Rules do not discriminate between the WACC of government-owned NSPs and privately owned NSPs. As such, it assumes that government-owned NSPs are privately[1] owned.

Figure 1. Illustration of the requirements in the Law and the Rules that define the Return on Debt



[1] In this document, "privately owned" refer to ownership by private shareholders, rather than by government. Private ownership as referred to in this document encompasses publicly-listed companies, which might more accurately be described as "publicly owned". Some network service providers such as Electranet, SP Ausnet and Jemena have government shareholders in addition to private shareholders, however the government shareholding is diluted and not a controlling interest. By contrast for the other network service providers commonly known to be government-owned, state governments are the sole shareholders.

2.3 Outcomes

This sub-section provides evidence that suggests that the Return on Debt that the AER has set, in accordance with the Rules, is significantly greater than the cost of debt raised by regulated electricity network service providers (NSPs). It starts by providing general context to the bond market in Australia and the role of privately owned NSPs in that market. It then examines the loans that fund government owned NSPs. This provides information that allows excess profitability to be quantified, and the impact of this on electricity prices and incentives for inefficient over-investment.

The market for bonds issued by privately owned NSPs in Australia

Australian Bureau of Statistics data show that as of the end of the first quarter 2011 the total size of bonds outstanding on the market in Australia were worth $1,458bn.[2] Of this, corporate bonds issued by Australian companies made up $140bn or just under 10%. Of this, Bloomberg data indicates that Australian Utilities currently make up around $14bn of corporate bond issuances, which is around 10% of total outstanding corporate bond debt.[3] Since 1998 Australian Utilities (as defined by Bloomberg) have issued 69 bonds with an average size of $204m, average term of 12 years and average coupon of 6%. The majority (65%) of Australian utilities' bonds are due to mature in the next four years.

Bonds issued by regulated electricity network service providers since 1998 (and which are still outstanding) is shown in Table 1.

[2] CEPA (2011)

[3] CEPA (2011)

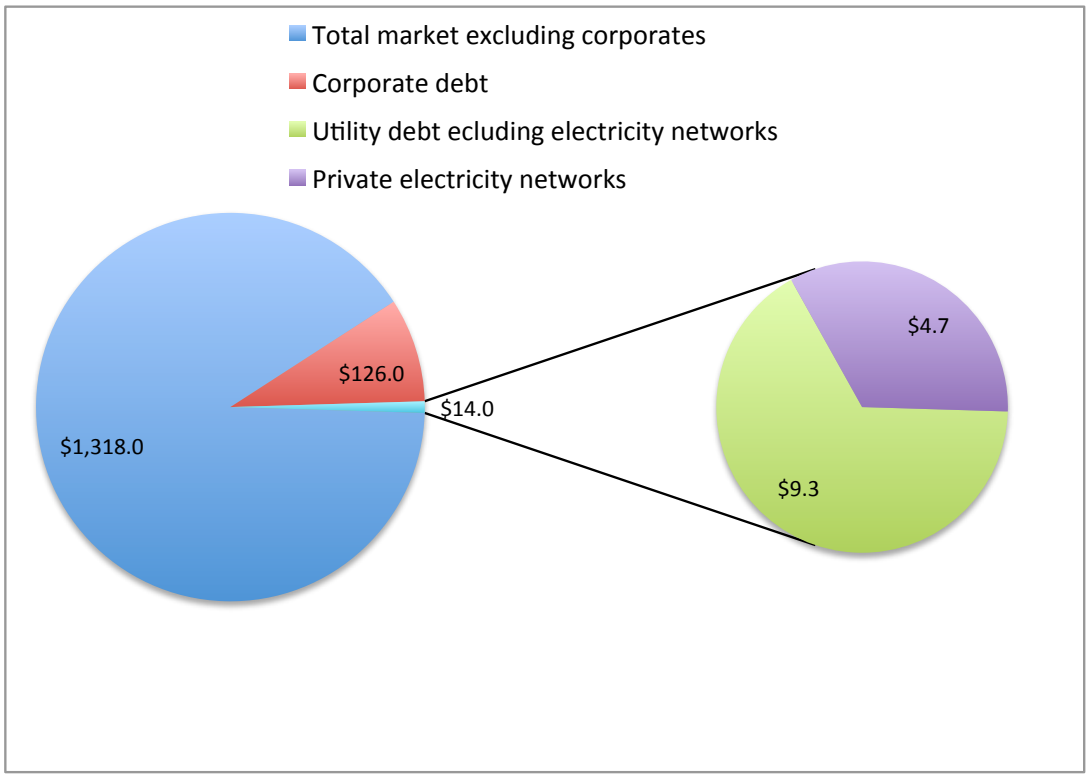
Table 1. Australian network utility bond issues since 1998[4]

Issuer	Issue date	Maturity	Amount raised (million)	Currency	Coupon (%)
Jemena Ltd	14/04/98	15/04/18	USD150	USD	6.9
Jemena Ltd	14/04/98	15/04/18	USD150	USD	6.9
Electranet[a]	20/11/00	20/08/15	AUD200	AUD	5.2
Citipower	28/02/03	28/02/13	AUD300	AUD	5.5
Jemena Ltd	25/09/03	25/09/15	USD150	USD	5.3
Jemena Ltd	25/09/03	25/09/15	USD150	USD	5.3
United Energy	19/11/03	15/04/16	USD200	USD	5.5
United Energy	19/11/03	15/05/16	USD200	USD	5.5
Spi Elect & Gas	10/12/03	15/11/13	USD300	USD	6.2
Spi Elect & Gas	03/11/04	03/11/11	AUD200	AUD	6.5
Spi Elect & Gas	04/11/04	04/11/14	USD300	USD	5
Spi Aust Fin Ltd	30/11/04	30/11/11	AUD85	AUD	5.4
Spi Aust Fin Ltd	30/11/04	30/11/11	AUD150	AUD	6.3
Etsa Utilities	15/07/05	15/07/15	AUD300	AUD	5.4
United Energy	31/10/05	23/10/14	AUD500	AUD	5.2
Powercor	15/11/05	15/11/15	AUD200	AUD	5.3
Spi Elect & Gas	14/09/06	14/09/16	USD275	USD	5.8
Citipower	12/01/07	15/07/17	AUD300	AUD	0
Citipower	12/01/07	15/07/17	AUD275	AUD	5.1
Etsa Utilities	30/04/07	15/10/19	AUD300	AUD	5.3
Powercor	15/08/07	15/08/21	AUD300	AUD	5.2
Powercor	15/08/07	15/01/22	AUD630	AUD	5.3
Spi Elect & Gas	26/06/08	26/06/18	GBP250	GBP	7.1
Spi Elect & Gas	08/03/10	08/09/15	CHF475	CHF	2.4
Spi Elect & Gas	16/03/10	16/03/20	HKD700	HKD	4.1
Spi Elect & Gas	25/03/10	25/09/17	AUD300	AUD	7.5
Spi Australia As	09/08/10	09/08/16	CHF175	CHF	2.3
Spi Australia As	12/08/10	12/08/15	AUD500	AUD	7
Spi Australia As	11/02/11	11/02/21	GBP250	GBP	5.1
Etsa Utilities	29/03/11	29/09/16	AUD250	AUD	6.8
Spi Elect & Gas	01/04/11	01/04/21	AUD250	AUD	7.5

[4] CEPA (2011)

The value of the debt issued in Australia by electricity NSPs and which is still outstanding - $4.7bn - is around 30% of the Australian Utilities market, around 3% of the Australian corporate bond market and just 0.3% of the value of the total bonds outstanding in the Australian bond market.

Figure 2. Australian network electricity bonds in the Australian bond market ($billion)



Publicly traded bonds issued in Australia (and elsewhere) by Australian electricity network service providers (or their parent companies) since the start of 2010 are shown in Table 2.[5] The first three bonds listed in this table were issued in other countries, but their nominal coupon is after AUD currency swaps have been taken into account based on information provided in the companies' press releases or information provided by them to the Australian Stock Exchange.

[5] Singapore Power International (SPI) is the dominant shareholder in the ASX-listed network service provider SP Ausnet, and also owns Jemena, an unlisted electricity and gas distributor. ETSA is the South Australian distributor which is partly owned by the listed investment trust, Spark Infrastructure, but whose dominant owner is CKI, a Hong Kong investment group.

Table 2. Traded bonds issued by Australian electricity network service providers since January 2010[6]

Issuer	Date ASX notified	Term (yrs)	Amount (AUD $m)	Swap rate at date of issue	Spread over swap rate (basis points)	Approx. nominal rate (%)	AER Allowed rate (%)	Difference between AER allowed rate and nominal rate (basis points)
SPI (Elec & Gas)	5-Feb-10	5.5	$520	5.03	152	6.55	8.81	226
SPI (Elec & Gas)	5-Mar-10	10	$700	5.47	170	7.17	8.81	164
SPI (Elec & Gas)	18-Mar-10	7.5	$300	5.51	160	7.11	8.81	170
SPI (Elec & Gas)	29-Mar-11	10	$250	5.46	167	7.13	8.81	168
ETSA	22-Mar-11	5.5	$250	5.19	135	6.54	8.98	244
					Avg.	6.92	8.83	191

The last column in the table shows the difference between the allowed return on debt in the AER's decision and the approximate cost of debt of the various bonds at the time of issue. The first three bonds were issued shortly before the AER's Draft Decision for Victorian distributors, while the yields on the last two bonds were made after the AER's Final Decision for Victorian distributors. The average difference for these bonds - 191 basis points - suggests that the AER has allowed a cost of debt substantially above the actual cost of recent issues (for which data is publicly available). It is also likely to be significantly above the embedded cost of debt, based on the information presented in Table 1.

[6] ASX announcements, Reserve Bank of Australia, CME analysis. The column on the date of issue is based on the date of the ASX announcements. These dates differ slightly from the registered date of bonds, which is shown in the data in Table 1. It should be noted that the spread over the swap rate shown in this table is consistently around 50 basis points *lower* than the level that the AER has estimated in Table 7.5 (on page 80) of its rule change proposal to the AEMC. Our analysis is consistent with the analysis by Credit Suisse (referenced in Table 5) in which the spread is calculated with reference to the risk free rate at the date that bonds were issued. Our analysis is also consistent with the debt issuer's own announcements to the Australian Stock Exchange. On the other hand, the AER's analysis does not appear to be consistent with the issuer's announcements to the ASX, but instead appears to be around 50 basis points higher than their announcements. It is not clear why the AER's analysis produces such a significantly different result from our and Credit Suisse's analysis and the companies' announcements. It might be that the AER has chosen, as its risk free rate in the calculation of the debt risk premium, the level that it set in its regulatory decisions rather than the risk free rate that applied when the bonds were issued, as is standard practice in the specification of debt margins.

In addition to the issuance of bonds, privately owned regulated electricity network service providers also raise large amounts of capital through bank loans. The terms of these loans are typically confidential.

Government-owned network service providers

Table 3 below summarises the cost of debt of government-owned network service providers, based on information provided in their publicly available financial reports for the financial years ending 30 June 2010. The appendix provides further detail on these loans.

Table 3. Cost of debt of government owned NSPs

NSP	Interest rate paid in 2009/10
Ergon	6.3%
Energex	5.8%
Powerlink	5.65%
Essential Energy	7.4%
Endeavour Energy	6.2%
Ausgrid	4.7% - 5.9%
TransGrid	6.2%
Aurora	6.0%
Transend	6.89%

The cost of debt shown in Table 3 ranges from 5.8% for Energex, an electricity distributor in Queensland, to 7.4% for Essential Energy, an electricity distributor in New South Wales. All of the electricity distributors' financial statements refer to loan guarantee or competitive neutrality fees. This is not typically the case for the electricity transmission network service providers. However since the transmission network service providers are paying a comparable cost for their government-provided debt as the distributors, presumably loan guarantee/competitive neutrality fees also apply to them.

The underlying cost of debt of all the NSPs (i.e. the cost of debt raised by their respective treasuries) is not disclosed in the annual reports of the network service providers.

Government guarantee fees / competitive neutrality fees are a significant source of income to the jurisdictional governments that still own assets. In aggregate $439m was raised through this fee in New South Wales in the year ending June 2010. It is also projected to

grow more quickly than all other sources of revenue in the forward estimates of the NSW Government budget.[7]

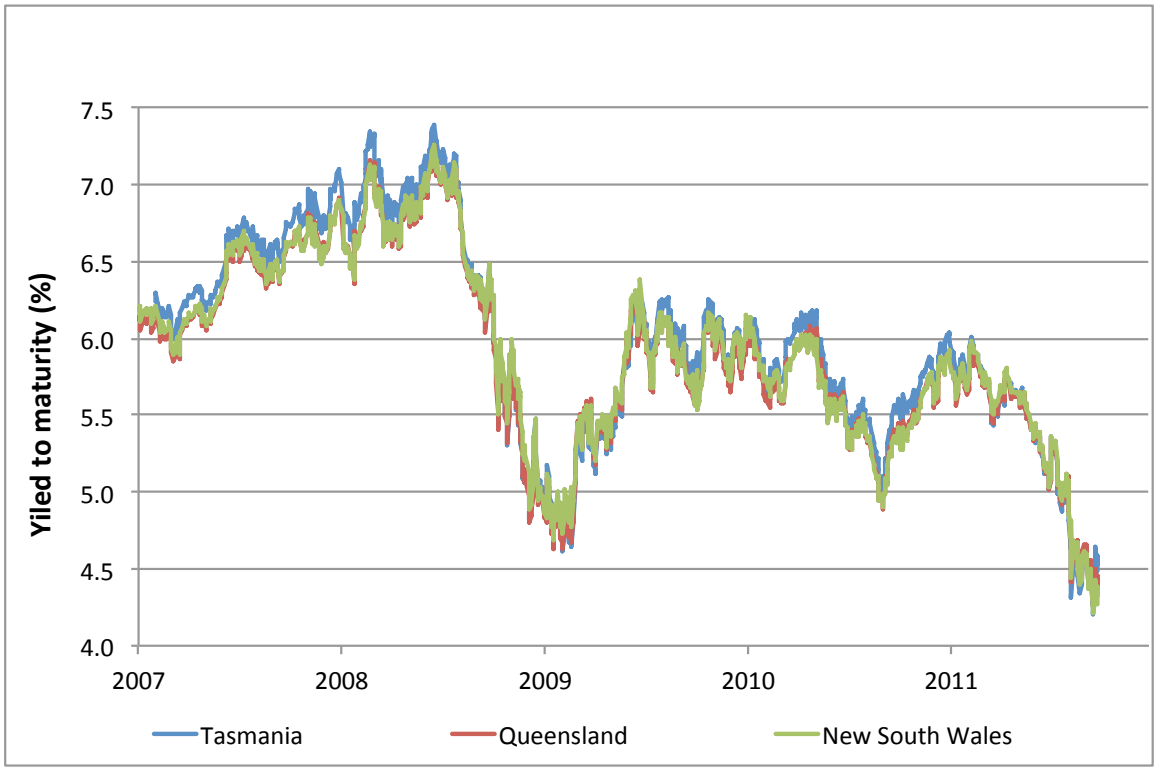
Bonds issued in NSW are typically rated AAA by Standard and Poors, while those issued by the Queensland Government are rated AA+ or AAA by Standard and Poors. Tasmania Government bonds are typically rated AA+. Figure 3 shows the yield to maturity for bonds with 3-7 years remaining to maturity issued by the governments of Tasmania, New South Wales and Queensland. An analysis of the underlying data shows that New South Wales and Queensland bonds have almost identical yield to maturity, while the Tasmania bonds have a slightly higher (typically around 6 basis points) yield.

The underlying cost of debt to government-owned NSPs is debatable. It could be based on the most recent information on yields (currently around 4.5%). Alternatively it could reflect averages calculated over various periods. Since state government treasuries hold the bonds – not the NSPs – the concept of "embedded debt" for these government–owned NSPs is not relevant, in the way that it is for privately owned NSPs. As such, there is no compelling argument as to whether the most recent information on bond rates is more accurate or representative of the underlying cost, or whether 1, 2, 5, or 10 year averages are preferable.

For the purposes of the analysis in this section, we have used the average yield to maturity on bonds with three to seven years to maturity, from the start of 2010 to the present, as the estimate of the underlying cost of debt to government-owned NSPs. This delivers a cost of debt of 5.49% for NSPs in New South Wales and Queensland, and 5.55% for NSPs in Tasmania.

[7] New South Wales Budget Statement 2010/2011, page 5-10

Figure 3. Yield to maturity of state governments bonds with 3-7 years remaining[8]



Regardless of the method by which the cost of debt is to be specified it is clear that there is a substantial gap between the approximate cost of debt to jurisdictional government-owned distributors and the AER's determination of an allowed Return on Debt of around 9%.

2.3.1 Excessive profits to NSPs and higher prices to electricity users

An allowed Return on Debt that is substantially above the actual cost of debt translates into revenues that are substantially higher than they otherwise would be. This is because under the regulatory calculation of the WACC, debt is assumed to make up 60% of the capital base of the regulated network service providers. As a result, 60% of any difference between the Return on Debt and the cost of debt will flow through in higher regulated revenues.

The resulting higher revenues translate into commensurately higher pre-tax profits. The impacts on the profits of jurisdictional government owned network service providers is

[8] CEPA (2011)

particularly significant because these governments receive the profits as well as the tax on those profits, from the NSPs that they own.

For example, for the year ending June 2010, the New South Wales electricity NSPs reported an actual average return on equity of 16.5%[9]. In its regulatory decision, the AER had calculated that its decision would deliver an annual return on equity of 10.29%[10] over the regulatory period starting on 1 July 2009 and ending on 30 June 2014. It should also be noted that both of these figures state the return on equity *after* the deduction of income tax. However, as noted, the Government of NSW ultimately receives the taxes that the NSW distributors pay. As such the actual return on equity (16.5%) should be grossed-up for the income tax paid (the income tax paid is effectively a return on equity). This means that the NSW Government achieved an actual return on equity of 23% in 2009/2010 on their regulated distribution network service providers. This is before accounting for margins on the debt that the Government provided to its NSPs. Profits will rise further during the regulatory period as the regulatory asset base expands.

The comparable average actual return on equity for these NSPs for the year ending June 2009 was 12.5%. We suggest the main reason for the substantial increase in the actual return on equity is the increase in the allowed Return on Debt determined by the AER (as varied by the Australian Competition Tribunal) of just under 9% compared to the Return on Debt determined by the Independent Pricing and Regulatory Tribunal (IPART) for the year to July 2009 (which was 6.9-7.1%)[11].

Table 4 below quantifies the excessive profits that will accrue to the government and private shareholders of network service providers in Queensland, Victoria, South Australia and New South Wales resulting from the allowed Return on Debt being substantially higher than the actual cost of debt. In this table, the actual cost of debt for private network service providers is based on the most recent data on the cost of debt shown in Table 2 and also takes account of historic embedded debt that typically has a lower yield to maturity.

The data in Table 1 suggests that historic lending rates have been even lower than this, and so the quantification of the excessive profits for privately owned NSPs in Table 4

[9] NSW Auditor General's Report to Parliament 2010, Volume Four page 19

[10] AER Final Decision, NSW Distributors page 237

[11] Ipart 2004. NSW Electricity Distribution Prices 2004/05 to 2008/09 Final Report.

below is likely to be a conservative estimate. For the government-owned NSPs, the estimated cost of debt of 5.6% is based on the estimated actual cost of debt discussed in the preceding paragraphs.

Table 4. Quantification of excessive profits from the return on debt in 2011

	2011 Regulatory Asset Base ($million)	Approx. Actual cost of debt (%)	Approx. allowed Return on debt (%)	Difference in allowed and actual cost of debt (%)	Difference in allowed revenue / pre-tax profits ($million)	
Private distribution	$11,440	6.5%	9%	2.5%	$172	
Government distribution	$37,028	5.6%	9%	3.4%	$755	
Private transmisson	$4,083	6.5%	9%	2.5%	$61	
Government transmission	$11,169	5.6%	9%	3.4%	$228	
					$1,216	**TOTAL**

Table 4 shows that the substantial difference between the allowed and actual cost of debt results in significantly higher allowed revenues / pre-tax profits, particularly for the government-owned NSPs in 2011. This impact will increase significantly as the regulated asset base expands.

The impact for government-owned NSPs is larger than it is for privately owned network service providers because government-owned NSPs have larger regulated asset bases; and the gap between the Return on Debt determined by the AER, and the actual cost of debt is larger for government-owned NSPs.

Table 4 shows that if the allowed return of debt was brought down to the approximate actual cost of debt (for all the NSPs) regulated revenues (and pre-tax profits) in 2010/11 would reduce by around $1.2bn. This is a measure of the excessive profit attributable to the difference between the allowed return on debt and the actual cost of debt. This is equivalent to a reduction in regulated revenues (and hence network prices) in 2011 of around 12%. Assuming network costs are around 55% of the total cost of sales for the

typical electricity user, a reduction in network costs of 12% results in a reduction in the total cost of sales for the typical end user of around 7%

The regulated asset base of all NSPs regulated by the AER is expected to expand significantly over the next four years. The effect of higher rates of return on regulated revenues is proportional to the size of the asset base. Our calculation, based on the same assumptions as those described above, but taking account of the larger regulated asset base and hence higher debt and hence higher return on debt, is that by 2014 regulated revenues (and hence pre-tax profits) could reduce by around $1.6bn in that year if the cost of debt used in the revenue determination were reflective of the actual cost of debt. This is equivalent to a decrease in electricity prices for end users of around 8% on average in 2014.

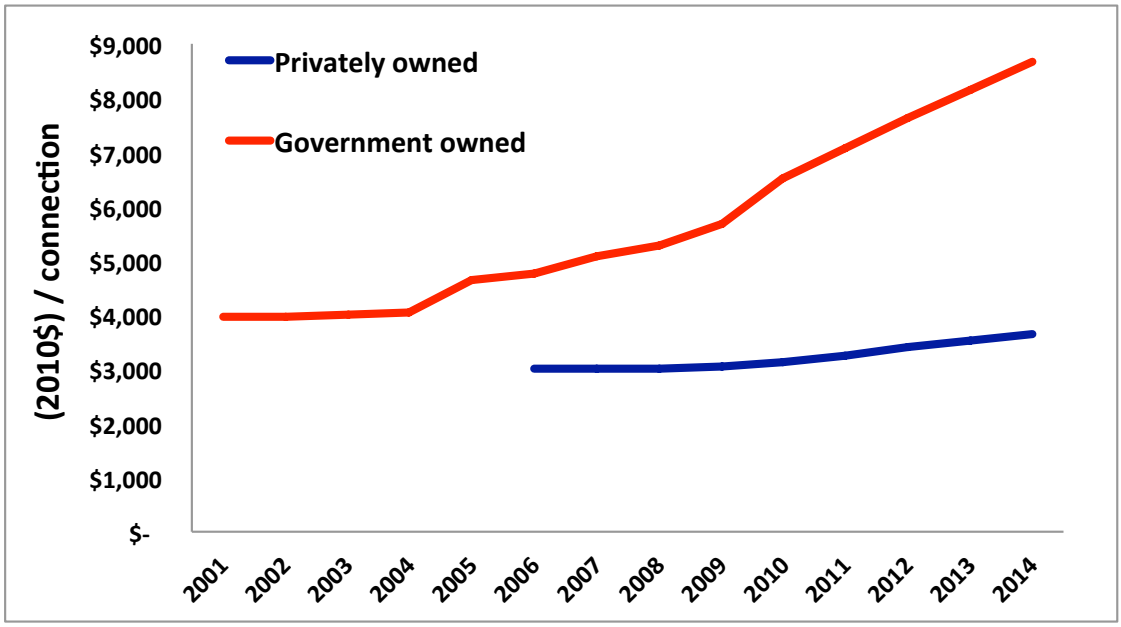
2.3.2 Incentives for inefficient over-investment

The regulatory formulation established in the Rules creates incentives for network service providers to reduce expenditure below the allowances established by the AER in its determination of regulated prices / revenues. These incentives allow NSPs to improve their rates of return above the minimum established in the revenue/price control decision if they are able to reduce costs below the allowances that the AER had determined.

However, the incentive to minimise costs is undermined where there is a gap between the regulated cost of capital (a driver of revenue) and the actual cost of debt (a component of cost), creating a cost of capital related excessive profit that is proportional to the size of the asset base. This creates an incentive for the network business to over-invest to increase future potential for cost of capital related excessive profits.

As discussed in Section 2.3.1, the gap between the allowed return on debt and the actual cost of debt is wider for government-owned NSPs than it is for privately owned NSPs. Evidence for the hypothesis that excessive allowed return on debt incentivises inefficient over-spending can be found by comparing the regulated asset base per customer served for government and privately owned electricity distribution network service providers. This is shown in Figure 4 that contrasts the average value of the regulated asset base per connection for government-owned and privately owned distributors. The figure shows a widening gap particularly following the AER's price and revenue control decisions in 2009/2010.

Figure 4. Regulated asset base per connection[12]



It is not suggested that the gap between the allowed return on debt and the actual cost of debt is the only factor that has driven such a significant disparity, but it is reasonable to believe that it has been a significant factor.

[12] Mountain (2011), page 28.

2.4 Why these outcomes

The previous sub-section has provided evidence that the return on debt arrangements established in the current Rules has contributed to excessive returns to the network owners and excessive growth in the regulated asset base. This sub-section outlines the specific flaws in the Rules that explain these outcomes. It categorises these flaws as errors of commission (the wrong benchmark has been specified) and errors of omission (failure to have regard to actual debt costs).

2.4.1 The wrong benchmark has been specified

The NER requires the AER to have regard to a benchmark based on debt term and credit ratings that the AER determines. The AER determined that the benchmark should reflect 10 year BBB+ rated debt issued by Australian corporates. But there are no corporate bonds issued in Australia that meet this requirement of tenure and credit risk at the time that the AER has made its price/revenue control decisions. As a result, the AER has had no option than to develop estimates based on short-term bonds and bonds with different credit ratings. Even so, there has still been a very limited number of possible bonds on which to establish a benchmark. For example, in its most recent price control decision for the Victorian electricity distributors, the AER's benchmark was established after having regard to just 5 bonds (all with maturity of less than 4.5 years).

The benchmark tool used by the AER – the Bloomberg Fair Value curve but using just a small handful of relevant bonds – can not be accepted uncritically. Jurisdictional regulators (for example the Independent Pricing and Regulatory Tribunal (IPART) in New South Wales and the Economic Regulation Authority (ERAWA) of Western Australia) have rejected. NSPs have also questioned it.

For example, in the recent distribution price control review in Victoria, the Victorian distributors' advisor - PricewaterhouseCoopers - recommended that the AER consider other factors in assessing the debt risk premium including adjusted floating rate bond data and term sheets of bank debt transactions[13]. The distributors themselves – in the context of the regulation for the Advanced Metering Infrastructure roll-out – rejected the use of the

[13] Australian Energy Regulator, June 2010. *Victorian electricity distribution network service providers: Draft Decision distribution determination 2011-2015,* page 508.

benchmark specified in the Rules and argued instead for a benchmark based on a single recently issued bond.[14]

The AER noted that it has "*had to place increasing reliance on data service providers, namely Bloomberg and CBA Spectrum, whose fair yield estimates have themselves been the subject of scrutiny in an environment where corroborating information is scarce*"[15], and that "*this sample of bonds is the best possible in the current circumstances, where there are no BBB+ bonds with a maturity close to ten years*".[16]

Both IPART and the ERAWA, following recent reviews, have rejected the use of Bloomberg Fair Value Curves in order to establish the regulated return on debt.

A further issue in establishing the benchmark is the requirement in the NER to establish both the risk free rate and the debt risk premium based on information obtained during a short period (15 to 20 working days) near to the start of the regulatory control period. The constituent elements of the Return on Debt (the Risk Free Rate and the Debt Risk Premium) have varied significantly over short periods. This is illustrated in Figure 5 in respect of two Commonwealth Government Securities.

[14] See Victorian electricity distributors, June 2009. *Debt risk premium for use in the Initial AMI WACC period, a paper produced jointly by the Victorian electricity distributors.*
[15] Australian Energy Regulator, June 2010, *Victorian electricity distribution network service providers: Draft Decision distribution determination 2011-2015*, page 512.
[16] Australian Energy Regulator, June 2010, *Victorian electricity distribution network service providers: Draft Decision distribution determination 2011-2015*, page 515.

Figure 5. Yield to maturity on selected Commonwealth Government Securities[17]

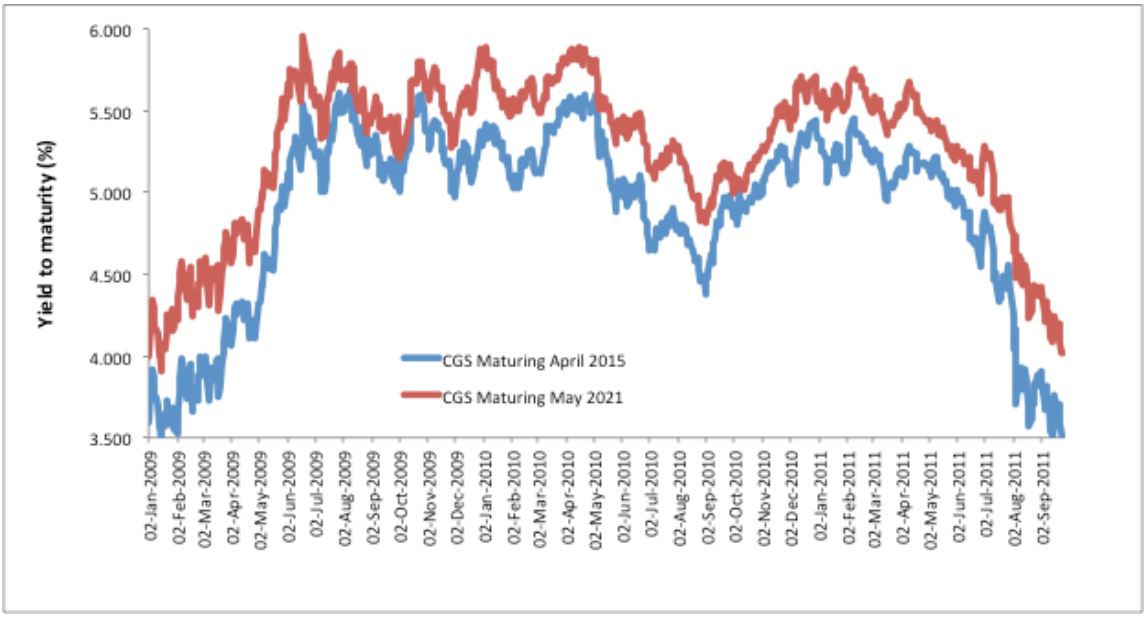
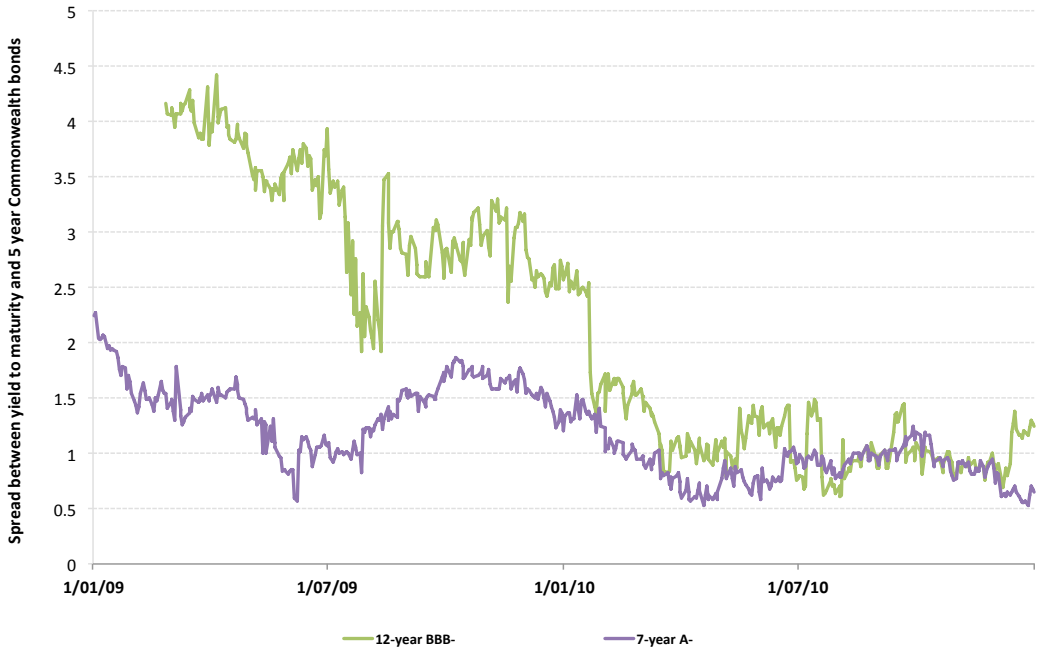


Figure 6 shows the very considerable volatility in the spreads on a 12 year BBB- bond issued Envestra maturing in late 2015 and a 7 year A- bond issued by SPI Electricity and Gas maturing towards the end of 2011.

Figure 6. Debt risk premium of bonds issued by Envestra (12 year BBB-) and SPI Electricity and Gas (7 year A-)[18]



[17] RBA, CME analysis

[18] Source: Data provided by CEPA from Bloomberg.

Other regulators have concluded that it is inappropriate to establish the return on debt over short periods. In Britain, Ofgem uses 10 year trailing yields to establish the return on debt. In its most recent price control decision for British distributors, Ofgem noted that:

"*the spot cost of debt has both risen, and fallen, sharply within a relatively short time period … (but that) we continue to believe that long-term averages represent the most appropriate basis for setting the cost of debt. We do not think that there is any compelling evidence that the recent turmoil in the financial markets has made this any less appropriate or that there has been a fundamental shift in the cost of debt following the financial crisis*".[19]

Ofgem further noted that "*In setting a WACC for the industry, we think that the use of long-term averages is the most reasonable way of reflecting an efficient long term cost of debt given the long lived nature of the assets the debt is financing. Furthermore, long-term averages offer investors a greater degree of predictability of allowed returns beyond the five years of a price control*". [20]

2.4.2 Insufficient weight has been placed on actual debt costs

As noted earlier in Section 9, the Rules require that the return on debt reflects "t*he current cost of borrowings for comparable debt*". Prima facie this suggests that the AER should have regard to the actual debt costs of the network service providers in setting the return on debt.

The specific requirements of Clause 6.5.2 (b) "*The rate of return for a Distribution Network Service Provider for a regulatory control period is the cost of capital as measured by the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk*" could be seen to provide specific instruction of how the "*current cost of borrowings for comparable debt*" is to be established. With this reading of the Rules, the AER is arguably effectively precluded from having regard to the actual cost of debt.

The evidence on the actual cost of debt of network utilities as shown in Table 1, Table 2 and Table 3 is clearly well below the circa 9% return on debt that has been allowed in AER decisions.

[19] Ofgem, December 2009. *Electricity Distribution Price Control Review – Allowed Revenues and Financial Issues*, Ref 147/09, page 9.
[20] ibid.

Furthermore, there is compelling evidence that even during the peak of the Global Financial Crisis, regulated NSPs were able to raise finance at competitive rates in bonds issued in Australia and other countries and also from banks in Australia. This is shown in Table 5 which contains details of the bonds issued and bank debt raised by NSPs during the period from June 2008 to February 2010. The weighted average margin on this debt - 181 basis points - compares to the Debt Risk Premium (circa 385 basis points) that the AER allowed NSPs in Queensland, South Australia, Victoria and New South Wales.

Table 5. Debt issued by private NSPs during the Global Financial Crisis[21]

Date of issue	Parent	Asset	Amount ($million)	Term to maturity at issue (years)	Margin above bank bill swap rate (basis points)
10/06/2008	DUET	Corporate senior debt	685	3&5	185
13/06/2008	SP Ausnet	Sterling bond issue	535	10	195
16/06/2008	Spark Infrastructure	Syndicated bank debt	200	3	105
10/11/2008	Spark Infrastructure	Bank Debt (Australia)	100	2/3	102.5
9/12/2008	United Energy Distribution	Project Finance	150	5	220
7/05/2009	SP Ausnet	Bank Debt (Australia)	275	3	250
4/06/2009	SP Ausnet	Bank debt (Australia)	50	3	250
5/02/2010	SP Ausnet	Swiss Franc bonds	520	5.5	152

If weight had been placed on actual debt costs, an allowed return on debt of 385 basis points on top of the risk free rate would have been clearly unsustainable.

[21] Source: Credit Suisse Research Note, "SP Ausnet" 8 February 2010

3 Solutions

This section describes our recommended approach to the calculation of the Return on Debt. It begins with an examination of whether energy users served by government and private NSPs should be paying the same Return on Debt in their regulated charges. It then presents a summary of CEPA's advice on the preferred approach to the determination of the Return on Debt. Finally it sets out the Committee's proposals taking account of this advice.

3.1 Government owned NSPs

Section 2.3 described the cost of debt to government-owned NSPs in Queensland, Tasmania and New South Wales. It showed that the underlying cost of debt to the monopoly NSPs in these states is around 5% but that various charges are added on top of this so that the actual rate of interest paid by these NSPs, based on their published accounts, is typically around 6% and as high as 7.4%.

In Section 2.3, the excessive profit related to debt margins for government-owned NSPs was calculated as the difference between the return on debt allowed by the AER and the estimated 5.6% cost of debt paid by state government treasuries for debt that they issue.

A lower estimate of the excessive profit to state governments would have been produced if the cost of debt used in this calculation, is as it is stated to be in the government-owned NSPs' financial accounts. Similarly, if the cost of debt to government-owned NSPs was assumed to be equal to a benchmark cost of debt of privately owned corporations, the calculation of the excessive profits to state governments from debt margins would have been even lower.

As explained in Section 2.1 the Rules require the AER to assume that government owned NSPs are privately owned when setting the return on debt to be used in the calculation of the return on assets. If the Rules were changed so that the return on debt for government-owned NSPs was to be based on the cost of debt raised by state government treasuries this would result in a very much lower return on debt than the government owned NSPs are currently receiving, as shown in Section 2.3.

This sub-section considers whether energy users served by government-owned NSPs should continue to receive a return on debt that as if they were privately owned. It

considers the merits of various arguments for and against this and then concludes with the Committee's view on this very important issue.

Competitive Neutrality

The main argument that state governments and their NSPs have used to justify that the return on debt should be equivalent to that awarded to privately owned distributors is that this is necessary to ensure "competitive neutrality". For example, the Queensland Government states that this is in-line with the Queensland Government's commitments under the Competition Principles Agreement (Mountain (2011) page 78).

In New South Wales, the Government Guarantee Fee is designed to ensure competitive neutrality between Government businesses and their private sector counterparts (NSW Treasury 2010).

The issue of competitive neutrality needs to be understood in the context of the Competition Principles Agreement that was executed at the Council of Australian Governments' meeting in April 1995. Part of this agreement was an undertaking by the Commonwealth and all State and Territory governments to ensure "*competitive neutrality between government and private business activities*". The agreement states the objective of the competitive neutrality policy is:

"*the elimination of resource allocation distortions arising out of the public ownership of entities engaged in significant business activities: Government businesses should not enjoy any net competitive advantage simply as a result of their public sector ownership.*"

In the application of this policy by the Commonwealth Government, a business activity to which the competitive neutrality principle applies needs to satisfy a number of criteria including that:

"*there must be an actual or potential competitor (either in the private or public sector) i.e. users are not restricted by law or policy from choosing alternative sources of supply*" (Competitive Neutrality Statement (1996), page 7).

However, the state governments of New South Wales, Queensland and Tasmania, unlike the Commonwealth Government, have applied the competitive neutrality principle also to their monopoly NSPs, and through this justified their "Competitive Neutrality Fee" and "Government Guarantee Fee".

The Committee considers that the payment of competitive neutrality fees by regulated monopoly NSPs to their jurisdictional government owners is inconsistent with the Competition Principles Agreement. NSPs are monopolies and as such their captive customers are unable to avail themselves of the services of a competitor. There is no reason to imagine that government owned NSPs are privately owned on the basis of that they can not crowd-out non-existent competitors. In other words, in the language of the Competition Principles Agreement, there is no "*resource allocation distortion problem*" to which the application of competitive neutrality principles is a necessary or theoretically valid solution.

Furthermore, it is important to be clear that as regulated monopolies, the various investments made by monopoly NSPs are all awarded the same minimum rate of return. Unlike investments made by firms in contestable markets, for regulated NSPs there is no meaningful risk that the cost of the investment plus a minimum regulated return will not be recovered from an NSP's captive customers.

The generally accepted theory in financial economics is that the expected return on an investment should reflect the systemic (non-diversifiable) risks associated with the investment, rather than the cost of capital of the investor. As such, expected returns should be independent of ownership. The application of this principle in contestable markets is not disputed and the Competition Principles Agreement and its injunction not to discriminate between government and privately owned firms rests on this theoretical foundation.

But the same argument can not apply to monopolies, whose investments and revenues are regulated and hence are not exposed to the commercial risks that exist in contestable markets. For regulated monopolies, the regulated return on debt should be established with reference to the cost of that debt. This is well-accepted practice in the economic regulation of monopolies in the United States of America and Britain, although in the former actual debt costs are used, while in the latter a benchmark based on actual debt costs is used. It is also evidenced in the application of the Competition Principles Agreement by the Commonwealth Government, only to government-owned businesses in which there is "*an actual or potential competitor*".

The logical conclusion from this is that there is no basis in theory or the application of the Competition Principles Agreement that the return on debt of government-owned NSPs should be based on the cost of debt for privately owned NSPs.

Compensation for diversification

The state government treasuries provide an aggregated borrowing service. The wide range of activities that they fund diversifies risk and means that the treasury is able to pay a lower rate of interest than if each business raised debt on its own account. It might be argued that the government-owned NSPs should be required to pay for this diversity benefit in the form of fees or higher rates of interest than the treasury rates.

We do not think this is appropriate. NSPs contribute to the diversity as much as they share in the benefits of it. The diversity is not created by the treasury, but by the individual business activities for whom the treasury provides a central purse. Electricity consumers should be compensating NSPs for diversifiable risks.

Capital market discipline

It has been argued that the allowed return on debt for government owned businesses – whether monopolies or competing businesses – should reflect the cost of debt of privately owned businesses, in order to provide capital market disciplines on the capital expenditure of government owned NSPs. The underlying concern is that if the managers of these businesses perceive a cost of low capital, they will be encouraged to inefficiently over-spend.

While it is reasonable to suppose in general that a higher cost of capital acts as a discipline on spending, when considering the application of this argument to NSPs it is necessary first to understand the price / revenue control regime administered by the AER.

This regime sets a return on debt as part of the calculation of the Weighted Average Cost of Capital (WACC), and hence the return on assets. The WACC set by the AER is a factor that determines regulated revenues, but it does not establish the cost of debt of the NSPs. There is no reason that the cost of capital that the shareholder and boards of the government-owned NSPs set, should be the same as the WACC determined by the AER. Indeed, it is argued in this application and elsewhere (see Mountain (2011) and Garnaut (2011)) that it is precisely because the regulator-determined WACC is so much higher than the underlying cost of debt that there has been inefficient over-investment particularly by government-owned network service providers.

The relevant issue in applying capital market pressures in regulated utilities is the hurdle rate established by the boards of the NSPs, not the WACC determined by the AER. It is a

job for the boards, not the regulator, to provide the governance and discipline to the NSPs that they oversee. The suggestion that it is the regulator's job to provide this capital market discipline through unsustainably high return on debt, is to argue that electricity users should be taxed because the Boards of the NSPs are unwilling to provide the disciplines that are they obliged to provide. This is clearly wrong. Accordingly the Committee considers that the argument that government-owned NSPs should receive a higher return on debt in order to apply capital market pressures, has no merit.

Compensation for access to the government's credit rating

State governments, like the Commonwealth Government, typically have AAA or AA+ credit ratings. This high credit rating reflects a range of factors not least confidence amongst lenders that these governments will be able to raise taxes to service and redeem their loans. As such the risk of default is low, and lenders are prepared to reflect this in lower lending rates.

Government-owned NSPs - all of whose debt is provided by their governments - benefit from this through access to cheaper debt than privately owned NSPs. It might be suggested that electricity users served by monopoly NSPs should be required to provide compensation to the state governments for this benefit.

This is an arguable point. Typically, state governments do not charge the various business entities that it owns a premium above the cost of government debt. What is different about the provision of electricity network services that means that electricity users should pay a premium for access to state government debt, while other government businesses don't? The usual response to this is that NSPs are "corporatized" entities (i.e. they exist as corporations established under legislation or the Companies Law with their own Board of Directors). We suggest that there is no particular merit in charging some government-owned businesses a premium for their use of government debt simply because the business entity providing the service has been corporatised.

Notwithstanding this, the Committee accepts that energy users served by government-owned NSPs would derive a benefit from NSPs' access to low cost government debt, if the prices they were charged reflected this lower cost of debt. The Committee accepts that, in principle and leaving other issues to one side, not all of the benefit of access to government balance sheets should go to energy users. In principles it would be reasonable for governments to charge energy users some premium (a fee) on the underlying cost of government-issued debt as a way to share in the benefit. This is somewhat akin to the fee

charged by the Australian Government to Australian banks - since the Global Financial Crisis - for Australian Government credit guarantees.

The relevant issue, in our assessment, is to determine what level such a fee should be. To answer this question it is necessary to have regard to how much benefit state governments already derive from their ownership of NSPs .

State governments derive four pecuniary benefits from their ownership of NSPs, three of which are realised in cash:

1. the rights to the profits the NSPs deliver;
2. the income tax equivalents on those profits; and
3. profits on the debt raised through state government treasuries at a premium to its underlying cost.

A fourth significant (but unrealised) pecuniary benefit is that by revaluing NSP assets, state governments create additional equity on NSP balance sheets. This creates room to increase borrowing by the NSPs (from state government treasuries). Table 6 below quantifies the pecuniary benefits that the New South Wales Government derived from its NSPs and retailers in 2010[22].

[22] It should be noted that these figures cover both the distributors and retailers which were integrated (and did not publish separate financial accounts) at the time that these accounts were produced (the retailers have since been sold). Segmented financial accounts for the distributors and retailers are not produced and hence it is not possible to know for certain how much of the profit, income tax and profit on debt relates to the distribution business compared to the retail business. However, it is likely that at least 95% of fixed assets are likely to be related to the distribution business and at least 90% of the profit is likely to derive from the distribution activity rather than the retail activity. The return on investment in retail is likely to be significantly lower than in distribution.

Table 6. Pecuniary benefits that the NSW Government derived from NSPs (transmission and distribution) and retailer ownership in 2010

Benefit	$(million) (2010)
Dividends[23]	$575m
Income tax equivalents[24]	$319m
Profit on debt[25]	$277m
TOTAL REALISED BENEFIT	$1 171m
Asset revaluation	$2 327m
TOTAL REALISED AND UNREALISED BENEFIT	$3 498m

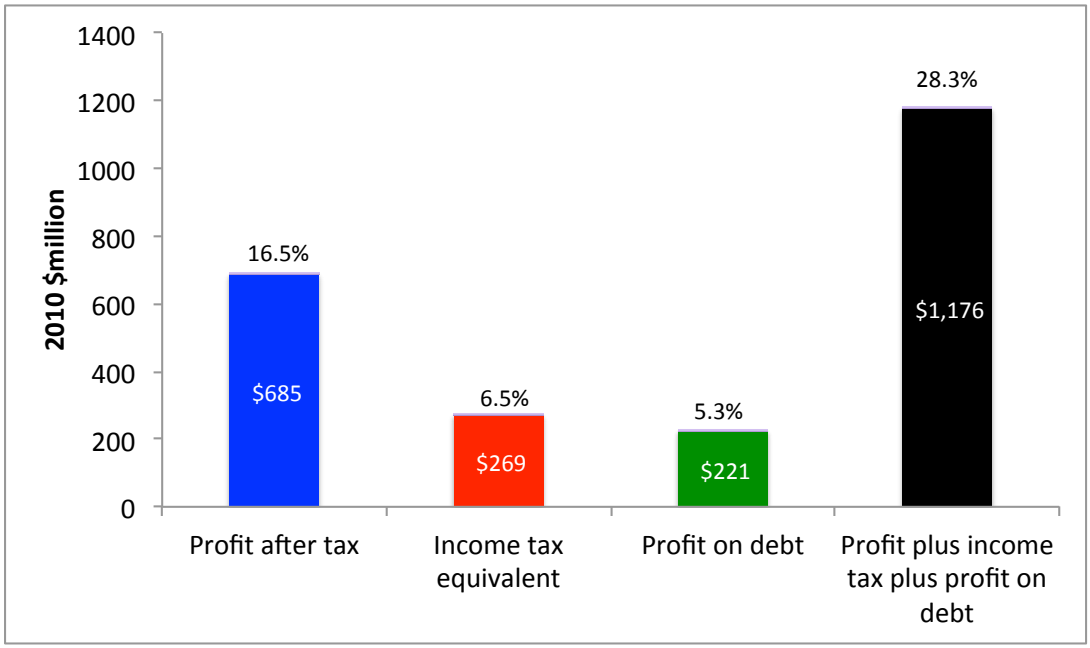
Table 6 shows that the NSW Government achieved realised (cash) gains on its ownership of its NSPs and retailers of $1,171m in 2010, of which around 3/4 was from dividends and income tax on the profits that funded those dividends. A little less than a quarter was $277m profit on the margin on debt that the government borrowed at around 5.5% and then lent to its NSPs at 7.4%[26].

As described in Section 2.3, the [accounting] rate of return on the NSW Government's investment in its NSPs was 23% in 2010. This is before accounting for the profit on the debt provided to the NSPs. These additional "profits" manifest as higher costs to the NSP businesses, and hence do not appear as attributable profits, but they do increase the regulated revenue of the businesses and hence the costs to consumers.

To obtain a valid estimate of the pecuniary benefits that the NSW Government is deriving from its ownership of NSPs it is necessary to add the debt margin profit to the profits and the income tax equivalent on NSPs' attributable profits. This is shown in Figure 7 for the NSW Government's investment in its distributors and retailers. The figures shows that the stated return on equity of 16.5% rises to 23% once income tax equivalents are accounted for, and then 28.3% once the profit on debt is accounted for.

[23] Source: New South Wales Auditor General's Report to Parliament 2010 Volume Four, page 24.
[24] Source: New South Wales Auditor General's Report to Parliament 2010 Volume Four, page 24.
[25] This is calculated as the outstanding debt of $14.55bn multiplied by the difference between the average interest rate paid by NSW NSPs in 2010 (7.4% based on data in New South Wales Auditor General's Report to Parliament 2010 Volume Four, page 21) and the effective cost of borrowing in 2010 (estimated to be around 5.5% based on earlier analysis in Section 2).
[26] Source: New South Wales Auditor General's Report to Parliament 2010 Volume Four, page 21.

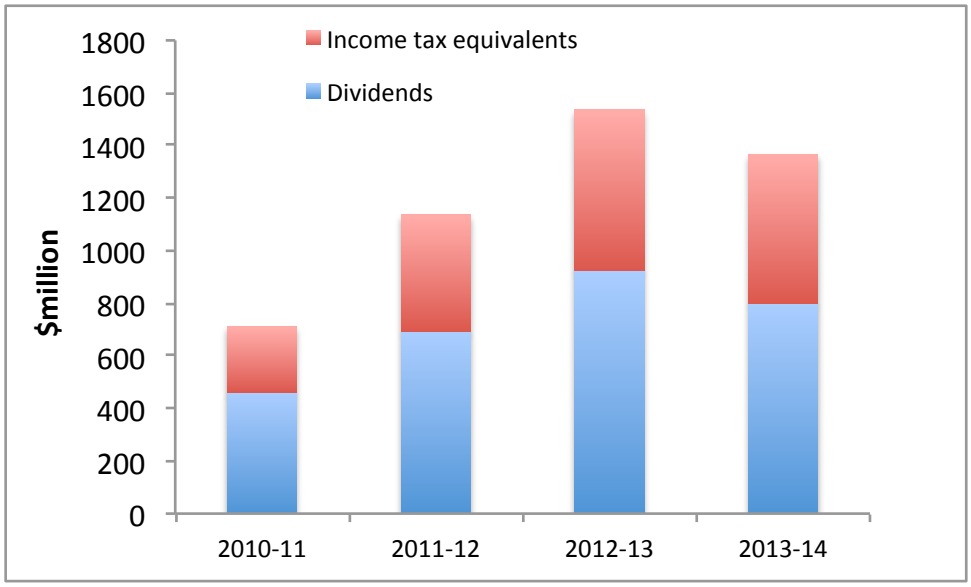
Figure 7. Pecuniary benefits to the NSW government from its distributors and retailers in 2010



By comparison, the Australian Energy Regulator's expectation (in its 2009/10 price control decision) was that the NSW distributors would earn a return on equity of 10.29% in 2010. In other words, the NSW distributors are delivering a rate of return on investment that is almost three times higher than the Australian Energy Regulator had anticipated.

Finally, it should be noted that the NSW Government has projected that profits and dividends (and income tax equivalents on profits) from its NSPs are likely to increase significantly over the course of the current regulatory period, in response to a rapidly expanding regulatory asset base, as shown in Figure 8 below.

Figure 8. NSW Government projection of dividends and income tax equivalents from electricity distribution and transmission[27]



Clearly the NSW Government is deriving very significantly higher returns from their NSPs than the AER has said is a reasonable return on investment.

While this section has not presented the same analysis in relation to the Queensland and Tasmanian governments (the absence of publicly available data precludes this) we suggest that such analysis would deliver conclusions that are consistent with the NSW analysis. This is because the same factors (profits on debt margins and retention of income taxes) will deliver high returns to the Tasmanian and Queensland governments in respect of their investment in their NSPs as they have done in NSW.

With this context, the question is whether, through the profitability of its NSPs and the state governments' collection of income tax equivalents, state governments are already being sufficiently rewarded for the benefit they provide of access to state government debt funding. The Committee suggests, based on the evidence, that this is almost certainly the case and that fees on government-provided debt are not therefore justifiable.

Summary and Conclusion

The Committee's argument is as follows:

[27] Source: New South Wales Treasury, 2010. "*Budget statement 2010-11*". Table 5.9, page 5-17.

1. The Committee recognises state governments' right to compensation from its NSPs in order to ensure that users share in the benefit these NSPs (and their customers) derive from access to inexpensive debt through state government treasuries.

2. But, the regulatory regime is already providing investment returns to governments that own NSPs that are far in excess of what the AER has anticipated in its price control determinations, or that can be considered to be reasonable.

3. The Committee suggests that the promotion of the long-term interest of consumers requires that the AEMC has regard to the outcomes being delivered by the regulatory regime as a whole in deciding the appropriate treatment of the return on debt.

Accordingly the Committee proposes that the return on debt for government-owned NSPs should reflect the cost of debt in state government bonds, rather than the cost of debt of privately owned corporations. Section 4 describes proposed rule changes to implement this.

3.2 CEPA's advice on the determination of the return on debt

Cambridge Economic Policy Associates (CEPA) has been retained by the Committee to advise on the determination of the return on debt. CEPA's report has been attached to this report. This sub-section is a précis of their advice to the Committee.

CEPA started by agreeing with our analysis of the existence of a problem. They then defined the evaluation criteria to be used in assessing possible solutions. These are summarised in Table 7 below.

Table 7. CEPA evaluation criteria

- **Incentives** – the extent to which the option provides incentives for efficient investment.
- **Cost recovery** – the option needs to ensure that the risk premium gives the utilities a reasonable opportunity to recover efficient costs and so be financeable. It also needs to take account of the risk of both under and over investment.
- **Consumer interest** – the option should support long-term consumer interests. We take this to mean that prices should be sustainable, i.e. at efficient levels so that services are provided in the long-term without windfall gains for companies. Further, price predictability is often an important concern, especially when the charge is a significant element of the final price.
- **Consistency** – the extent to which the option differs from existing precedent. This reflects the fact that regulatory risk is likely to be minimised when a track record exists.
- **Practical** - Can the option be implemented in practice? This relates both to the establishment of the approach, i.e. are changes to the NER needed, and to the ongoing implementation, i.e. data requirements etc.

CEPA then described the defining features of a taxonomy of return on debt options. These included:

- scope of comparators (what credit ratings should be used for comparator bonds);
- maturity of debt (how long should the bonds have to mature in order to be defined as a comparator);
- averaging period (over what period of time should the return on debt be determined);
- forward-looking versus backward-looking (should the return on debt be based on historic costs or future costs); and
- actual versus notional (should the return on debt be based on actual costs or an index/benchmark).

On the basis of this taxonomy, CEPA then developed seven options for evaluation as shown in Table 8.

Table 8. CEPA proposed options for evaluation

Options	Scope	Maturity	Forward / Backward	Actual / Notional
Current AER	Aus BBB+	10 Year	Forward	Notional
Option 1A (broader credit ratings)	Extended range	10 Year	Forward	Notional
Option 1B (including Australian corporate debt issued in other countries)	Extended range incl. International	10 Year	Forward	Notional
Option 2A(using 5 year instead of 10 year debt)	Aus BBB+	5 Year	Forward	Notional
Option 2B (using 5 year debt but adding a term premium)	Aus BBB+	5 Year + Term Premium	Forward	Notional
Option 3 (forward looking but using historic data)	Aus BBB+	10 Year	Forward & Backward	Notional
Option 4 (using actual costs)	-	-	-	Actual
Option 5 (5 year, no term premium, forward looking but using historic data):	Extended range	5 Year	Forward & Backward	Notional

A summary of CEPA's main conclusions from their evaluation of these options is as follows:

- **Option 1A (broader credit ratings):** Extending the scope of bonds to be included in the comparator set is desirable but not sufficient;
- **Option 1B (including Australian corporate debt issued in other countries):** Not desirable because complex and may have adverse consequences.
- **Option 2A (using 5 year instead of 10 year debt):** Using 5 year debt instead of 10 year debt in the development of comparators is desirable but not sufficient.
- **Option 2B (using 5 year debt but adding a term premium):** Not desirable since regulated companies do not finance themselves using 10 year debt so this option will lead to an outcome where the allowed Return on Debt and actual cost of debt will deviate.
- **Option 3 (forward looking but using historic data):** This is desirable since it reduces excessive profits and losses and reduces financing risk.

- **Option 4 (using actual costs):** Has positive benefit in that it eliminates windfall gains and losses, but not desirable for privately owned NSPs as it reduces incentives. Desirable for government-owned NSPs since they have no control over debt costs.
- **Option 5 (5 year, no term premium, forward looking but using historic data):** Captures the benefits of options 1A, 2A and 3, hence the preferred approach for privately-owned NSPs.

3.3 The Committee's proposals

Government owned NSPs

Section 3.1 concluded with the Committee's view that while there may be a case for energy users sharing part of the benefit of access to state governments' AA+/AAA credit rating, the clear evidence is that government-owned NSPs are already producing returns on investment far above the AER's determination of reasonable returns. This is largely due to the fact that government-owned NSPs also receive income taxes on the profits that the NSPs produce, and this is not accounted for in the regulatory determination of the return on assets. As such, the Committee concluded that there could be no reasonable argument that users should be expected to pay more than the actual cost of debt to the state governments, for the debt capital that the governments provide to the NSPs. To do so, would be clearly contrary to the NEO.

CEPA recommended Option 4 in respect of NSPs whose debt is provided by state governments (government owned NSPs). The Committee accepts CEPA's recommendation and notes that NSPs have no control over the debt on their balance sheets since it is arranged and managed by the state government treasuries. As such, the government-owned NSPs are unable to respond to regulatory incentives to minimise their debt costs. Therefore there is no loss to efficiency incentives, if the return on debt for government-owned NSPs is based on the actual cost of debt raised by their respective state government treasuries.

The calculation of the appropriate return on debt for government-owned NSPs is therefore a straight-forward matter of determining an appropriate estimate of the actual cost of debt raised by state government treasuries and ensuring that this is reflected in the calculation of the allowed return on debt for NSPs for each year of the regulatory control period.

CEPA has proposed that this estimate of the actual cost of debt for an NSP be established as the average yield to maturity in the previous calendar year of all bonds issued by the relevant government (that owns that NSP) that have between three and seven years to maturity at the end of that calendar year. Box 1 illustrates how this would work, assuming our proposals had been implemented for all government owned network service providers.

Box 1. Illustration of the application of our approach to government owned NSPs

For the 2010 calendar year, the average yield to maturity on bonds with between three and seven years to mature issued by the jurisdictional governments in Tasmania, New South Wales and Queensland was 5.72% in Tasmania and 5.6% in New South Wales and Queensland. This would be the Return on Debt to apply in the calculation of the WACC for the NSPs in these states for the year beginning 1 July 2011. The Return on Debt for the year beginning 1 July 2012, would be revised based on the average yield to maturity of bonds with between three and seven years to mature issued by the jurisdictional governments in Tasmania, New South Wales and Queensland for the 2011 calendar year. This process would be repeated for all subsequent years in the regulatory control period.

Privately owned NSPs

Section 2.3 showed that privately owned NSPs have been able to raise debt at substantially lower cost that they have been allowed under the AER's price controls. Section 2.4 attributed the reasons for this to a failure in the design of the benchmark and also that insufficient weight has been placed on actual debt costs. To recap the main points:

- The benchmark requires the AER to use 10 year bonds with a credit rating of BBB+. But in practice NSPs seldomly, if ever, issue 10 year bonds in the Australian debt market. Invariably their Australian bonds (and bank loans) are of 5 year's duration and often shorter. Besides this, there are no BBB+ bonds issued by any Australian corporate in the Australian bond market with 10 years to maturity, at this time;
- The Rules require the AER to observe the risk free rate and the debt risk premium over short intervals of time. But these rates vary considerably over short periods and hence the return on debt they deliver is very sensitive to the chosen time intervals;
- The Rules have no regard to the cost of embedded debt and hence the regulated return on debt can give rise to windfall gains or losses (so far it has given rise to windfall gains).

CEPA's recommended approach, Option 5, deals with these problems:

- CEPA recommends 5 year rather than 10 year debt to be used in the benchmark, thus properly reflecting actual NSP practice;
- CEPA recommends that all broad BBB and A rated corporate debt be included in the index, thus ensuring a more liquid market of bonds to establish a benchmark. It should be noted that this approach is nonetheless favourable to the NSPs since NSP debt is more often than not rated "A" than broad BBB. Furthermore as CEPA noted, a significant US historical yield database presented by Duffee (1998) showed that both the average spread and the standard deviation of the spread of yields is lower for utility bonds compared to industrial bonds of an equal credit rating. This is corroborated by the evidence presented in Table 5 which showed the Australian NSPs continued to issue debts at narrow spreads even during the peak of the GFC.
- CEPA recommends that the return on debt should be based on a five year rolling mechanism that is mechanistically updated each year of the price control review. This addresses the problem of volatile estimates of debt costs when sampled over a short period of time, and it also addresses the problem of windfall gains and losses that arise when there are differences between the embedded and future costs of debt.

For these reasons, the Committee accepts and endorses the solutions recommended by CEPA.

Box 2 below illustrates the application of this approach for privately owned NSPs assuming our proposals had been implemented for all of these network service providers.

Box 2. Illustration of the application of our approach to privately owned NSPs

For the five years to 31 December 2010, the average yield to maturity for broad BBB and A rated corporate bonds issued in Australia was 7.58% based on Bloomberg's Fair Value Method. In the case of the Victorian distributors (whose regulatory year starts on 1 January) this would be the Return on Debt to apply for the year beginning 1 January 2012. For the Victorian and South Australian transmission network service providers and South Australian distribution network service provider whose regulatory year runs from 1 July, this Return on Debt would apply from 1 July 2011. The Return on Debt calculation would be revised for the next year of the regulatory control period using the average yield to maturity for broad BBB and A rated corporate bonds issued in Australia for the five years to 31 December 2011. This process would be repeated for all subsequent years in the regulatory control period.

3.4 Implications of the proposal for prices and NSP profits

The hypothetical application of this approach in 2011 would deliver a return on debt of 5.49% for government owned NSPs in New South Wales and Queensland, 5.55% for NSPs in Tasmania and 7.58% for privately owned NSPs in South Australia and Victoria. Table 9 below quantifies the estimated change in revenue that would be recovered from energy users as a result of the application of this proposal if, hypothetically, it was applied to all NSPs regulated by the AER, in 2011.[28] For the avoidance of doubt, the Committee proposes that the application of the approach it proposes would only come into effect from the start of their next regulatory control period.

Table 9. Estimated change in regulated revenues resulting from the hypothetical application of the Committee's proposals in 2011

	2011 Regulatory Asset Base ($million)	Committee proposed Return on Debt (%)	AER determined Return on Debt (%)	Difference in Committee and AER Return on Debt (%)	Difference in allowed revenue / pre-tax profits ($million)	
Private distribution	$11,440	7.6%	9%	1.4%	$97	
Government distribution	$37,028	5.5%	9%	3.5%	$778	
Private transmisson	$4,083	7.6%	9%	1.4%	$35	
Government transmission	$11,169	5.5%	9%	3.5%	$235	
					$1,144	**TOTAL**

The implementation of this approach would result in a reduction in regulated revenues to NSPs of 11.5% and a reduction in average retail electricity prices of around 6.3%.

The impact of this proposal on NSP profits, in the absence of other adjustments by NSPs, is likely to be significant although impossible to quantify with certainty. Similarly, the impact of this proposal on the efficiency of capital expenditure, particularly by government-owned NSPs is likely to be significant although, again, impossible to quantify with certainty.

[28] It should be noted that the AER has not yet established a price control for Aurora, the Tasmanian electricity distributor. For the purposes of this calculation it has been assumed that the allowed return on debt for Aurora would be the same as was established by the AER for NSPs in Queensland and New South Wales.

3.5 The Committee's proposal compared to the AER's

On 29 September 2011, the AER submitted its rule change proposal to the AEMC and published its proposal on its website. The Committee considered the AER's proposals in relation to the determination of the WACC.

The main changes that the AER has proposed in relation to the WACC are that the methodology and parameters for the calculation of the return on debt should be included in the WACC review that the AER will conduct periodically (at least every five years).[29] .

The AER's proposed changes are not consistent with the Committee's proposals:

- The AER's proposal to establish the methodology for the debt risk premium during its periodic reviews is inconsistent with the Committee's proposal that the methodology for the calculation of the return on debt (and also of relevant parameters such as debt term and credit ratings) should be specified in the Rules, rather than subject to AER review.
- The AER's proposal to periodically review the term and credit rating of the benchmark bonds is inconsistent with the Committee's proposals that these parameters should be fixed in the Rules rather than set by the AER through its reviews.

The Committee has not proposed changes to the treatment of the return on equity in the NER. Essentially therefore, the AER and the Committee have taken different approaches to the resolution of problems with the calculation of the Return on Debt:

- The AER's proposes that the Rules be changed so that it (the AER) can then deal with the content of the issue during its periodic WACC reviews.
- The Committee has focused on the content of the issue and proposed solutions that it considers best meet the NEO. The Committee has proposed that these solutions

[29] The determination of some of the parameters that affect the cost of debt debt in periodic WACC reviews conducted by the AER applies to transmission network service providers but not to distribution network service providers where some WACC parameters may be reviewed in each price/revenue control decision if there is "persuasive evidence" to diverge from the values specified in the AER's WACC reviews

should be implemented through changes to the Rules, rather than being left to periodic WACC reviews by the AER.

It is therefore evident that with respect to the proposals for changes to the Rules relating to the determination of the Return on Debt, the AEMC will have to decide between competing proposals from the AER and the Committee.

We agree with the AER that the return on debt methodology is flawed, for the reasons set out in Section 2 of this document. But it does not follow that the best solution to flawed clauses in the Rules is that the AER reviews them. Other solutions would be to fix the flawed clauses, such as we have described in this proposal. The AER has not explained why it has not considered other alternatives and why it considers that its approach is superior to the alternatives. In the rest of this section, we explain our view that the AER's proposals for the treatment of the return on debt is not the approach that is likely to best meet the NEO.

Firstly the AER's historic performance on WACC issues suggest that an AER review would not necessarily deliver an appropriate methodology or parameters for the Return on Debt. The AER currently has discretion under the Rules to review both the debt term and the credit rating used in the calculation of the return on debt. It reviewed both of these parameters in its June 2009 Statement of Regulatory Intent and decided then that 10 year, BBB+ rated bonds were to be used. It used this in its price control review of the Victorian distributors in 2010. Unfortunately for consumers this resulted in the determination of a return on debt for Victorian distributors of around 9%, substantially above the approximate 6.5% actual cost of debt as we have shown in Section 2.

In its Rule change application, the AER has now recognised that 10 year, BBB+ bonds will deliver an inappropriate return on debt. We commend the AER for now advocating a solution to the problem. However, the AER had authority in the Victorian price control review to choose alternative credit ratings and different debt terms in setting the cost of debt benchmark[30]. This authority derives from the discretion the AER has, under the existing Rules, to vary these parameters from the values it had arrived at in its WACC review if there is "persuasive evidence" to do so. There was persuasive evidence at the

[30] Mountain, B. R. August 2010. "*Analysis of the Australian Energy Regulator's assessment of the Debt Risk Premium in its Draft Decision on price controls for the period 2010/11 to 2015/16 for the Victorian electricity distributors*". A report for the Energy Users Association of Australia.

time of the Victorian price control decision, as the AER now recognises. The Rules did not need to be changed in order for the AER to exercise such authority.

In the Victorian price control decision the AER could legitimately have chosen a mix of A and broad BBB rated debt with maturities of 5 years (as we have recommended in Section 3.3). This would have resulted in a return on debt much closer to the distributors' actual cost of debt instead of the 9% that the AER had determined. This would have substantially reduced the excessive profits to Victorian distributors that Victorian electricity users are funding as a result of the AER's selection of inappropriate debt benchmark parameters.

Further evidence to support the view that the problem is not inadequate regulatory discretion can be seen in the AER's decisions on the return on debt for the gas distributor price control decisions it has made for Envestra, ActewAGL and Jemena. Under the National Gas Rules, the AER has discretion to decide the return on debt for gas distributors as it sees fit. In these decisions it decided on a return on debt at least as high (and in one case higher) than it decided for electricity NSPs.

In summary, on the basis of past performance the Committee is not convinced that the AER, through its periodic WACC reviews, will develop a better solution than the one we have proposed.

Second, we disagree with the AER's proposals on the principles to be specified in the Rules on the calculation of the Return on Debt. In particular, the AER has proposed that several clauses currently in the Rules that affect the calculation of the return on debt should remain. These include the requirement that the rate of return should be a forward looking rate of return commensurate with prevailing conditions in the market for funds, and the need for the return on debt to reflect the current cost of borrowings for comparable debt. For the reasons set out in Section 3, we do not consider that a return on debt established in accordance with these principles will satisfy the NEO. The Committee suggests the principles for the calculation of the return on debt should be reviewed by the AEMC. The AER's proposals do not cater for this.

Third, the AER has proposed that the return on debt should continue to discriminate in favour of government owned NSPs by assuming - obviously falsely - that they are privately owned. This fails to recognise their lower cost of debt and the returns that governments are achieving through income tax equivalents on distributor profits. For the reasons set out in Section 3 we think that this is inconsistent with the NEO. The Committee considers it very important that this policy issue is debated openly with the active

participation of all stakeholders – including state governments – through a process that is directly accountable to the NEO. A Rule change application heard by the AEMC will facilitate such a debate. A review conducted by the AER and which is answerable to the Rules, rather than the NEO, will not be able to debate and resolve this important policy issue.

Fourth, the Committee is not convinced by the argument that regulatory discretion is valuable or preferable in the specification of the return on debt. Unlike most other elements of the WACC, the cost of debt is observable with reasonable certainty. As noted in Section 3.2 and in further detail in CEPA's report, in other countries the regulatory approach to the determination of the return on debt has been stable over long periods of time. These characteristics make it amenable to clear specification in terms of both methodology and parameters. The important issue is to ensure that the methodology is well designed and that the values that the application of that methodology delivers, properly accounts for the evolution in debt markets and NSP lending practices. The Committee suggests that this should be the focus of consideration by the AER. There is no compelling reason, on the basis of regulatory discretion, for consideration of the Committee's arguments to be deferred to an AER review. On the contrary, as discussed in the previous points there is good reason not to do this.

Finally, with the AER's approach, consumers will need to scrutinise each WACC review that the AER undertakes for the calculation of the return on debt as well as return on equity. Opportunities to reduce the scope of on-going, repeated consultation by setting the determination of the return on debt in the rules (as we propose), will reduce the need for repeated consultation and hence help to reduce advocacy burdens on consumers. It will also diminish opportunities for lobbying from well-resourced NSPs who can recover the costs of their lobbying through regulated charges.

4 Specification of proposed Rule changes

This section describes the Committee's proposed changes to Chapter 6 of the Rules, to implement its proposals for the allowed Return on Debt for distribution network service providers. The black text is the part of the existing clause that the Committee is proposing to amend, and the red text is the Committee's proposed amendment.

This section has not described the adjustments that would need to be made to Chapter 6A (for transmission network service providers). The Committee proposes that the changes to be made to Chapter 6A should ensure that exactly the same arrangements for the Return on Debt applies to transmission network service providers as applies to distribution network service providers.

Existing Clause 6.5.2 (b)

The rate of return for a *Distribution Network Service Provider* for a *regulatory control period* is the cost of capital as measured by the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the *distribution* business of the provider and must be calculated as a nominal post-tax *weighted average cost of capital* (*WACC*) in accordance with the following formula:

$$WACC = k_e \frac{E}{V} + k_d \frac{D}{V}$$

where:

k_e is the return on equity (determined using the Capital Asset Pricing Model) and is calculated as:

$r_f + \beta_e \times MRP$ where:
r_f is the nominal risk free rate for the *regulatory control period* determined in accordance with paragraph (c); β_e is the equity beta; and MRP is the market risk premium;
k_d is the return on debt and is calculated as:
r_f + DRP where:

DRP is the debt risk premium for the *regulatory control period* determined in accordance with paragraph (e);
E/V is the value of equity as a proportion of the value of equity and debt, which is 1 – D/V; and D/V is the value of debt as a proportion of the value of equity and debt.

Proposed revised Clause 6.5.2 (b)

6.5.2 (b) The rate of return for a *Distribution Network Service Provider* for each year (i) of a *regulatory control period* is a nominal post-tax *weighted average cost of capital* (*WACC*) to be established in accordance with the following formula:

$WACC_{(i)} = k\,E/V + k_{d(i)}\,D/V$

where:

k_e is the return on equity (determined using the Capital Asset Pricing Model) and is calculated as:

$r_f + \beta_e \times MRP$ where:

r_f is the nominal risk free rate for the *regulatory control period* determined in accordance with paragraph (c); β_e is the equity beta; MRP is the market risk premium;

$k_{d(i)}$ is the return on debt for year (i) and is calculated in accordance with 6.5.2 (e);

E/V is the value of equity as a proportion of the value of equity and debt, which is 1 – D/V; and D/V is the value of debt as a proportion of the value of equity and debt.

Existing Clause 6.5.2 (e)

The debt risk premium for a regulatory control period is the premium determined for that regulatory control period by the AER as the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to that used to derive the nominal risk free rate and a credit rating from a recognised credit rating agency.

Proposed revised clause 6.5.2 (e)

For each year (i) of the regulatory control period, the Return on Debt for a Distribution Network Service Provider is to be calculated in accordance with the following formula:

$kd_{(i)} = RoD(p)_{(i)} * PR(p)_{(i)} + RoD(g)_{(i)} * PR(g)_{(i)}$

Where:

$RoD(g)_{(i)}$ is the Return on Debt issued to or guaranteed by jurisdictional governments. It is to be calculated for each year (i) of the regulatory control period as the average yield to maturity for the most recently completed calendar year for all eligible bonds. Eligible bonds are those bonds issued by the government that provides the debt for that distribution network service provider, and that have between three and seven years to maturity at the end of that calendar year.

$RoD(p)_{(i)}$ is the Return on Debt issued to private lenders. It is to be calculated as the simple *average yield to maturity* of A and broad BBB fair market value estimates of corporate bonds issued in Australia over the five year period ending on December 31st of year (i-1).

$PR(p)_{(i)}$ for a distribution network service provider is the forecast fraction of debt issued to private lenders for year (i). It is to be calculated as $V(p)_{(i)} / (V(p)_{(i)} + V(g)_{(i)})$

$PR(g)_{(i)}$ for a distribution network service provider is the forecast fraction of debt issued to or guaranteed by governments for year (i). It is to be calculated as $V(g)_{(i)} / (V(p)_{(i)} + V(g)_{(i)})$

Where:

$V(p)_{(i)}$ is the forecast value of debt issued to private lenders for year (i);

$V(g)_{(i)}$ is the forecast value of debt issued to or guaranteed by governments for year (i).

6.5.3 (1) the cost of debt must be based on that of a benchmark efficient *Distribution Network Service Provider*;

[[Clause 6.5.3 (1) to be deleted.]]

Existing Clause 6.5.4

(c) The *AER* must, in consequence of a review, issue a statement (a *statement of regulatory intent*) adopting values, methods and credit rating levels for *Distribution Network Service Providers* or for specified classes of *Distribution Network Service Providers*.

(d) The following matters (and the method of their calculation) may form the subject of a review:

(4) the maturity period and bond rates referred to in clause 6.5.2(d);

(6) credit rating levels referred to in clause 6.5.2(e);

(e) In undertaking a review, the *AER* must have regard to:

(1) the need for the rate of return calculated for the purposes of clause 6.5.2(b) to be a forward looking rate of return that is commensurate with prevailing conditions in the market for funds and the risk involved in providing *standard control services*; and

(2) the need for the return on debt to reflect the current cost of borrowings for comparable debt; and

(3) the need for the credit rating levels or the values attributable to, or the methods of calculating, the parameters referred to in paragraph (d) that vary according to the efficiency of the *Distribution Network Service Provider* to be based on a benchmark efficient *Distribution Network Service Provider*; and where the credit rating levels or the values attributable to, or the method of calculating, parameters referred to in paragraph (d) cannot be determined with certainty:

(i) the need to achieve an outcome that is consistent with the *national electricity objective*; and

(ii) the need for persuasive evidence before adopting a credit rating level or a value for, or a method of calculating, that parameter that differs from the credit rating level, value or the method of calculation that has previously been adopted for it.

(4)

(f) A *statement of regulatory intent* adopting a revised value, method, or credit rating level applies only for the purposes of a *building block proposal* submitted to the *AER* after publication of the *statement of regulatory intent*.

(g) A distribution determination to which a *statement of regulatory intent* is applicable must be consistent with the statement unless there is persuasive evidence justifying a departure, in the particular case, from a value, method or credit rating level set in the statement.

(h) In deciding whether a departure from a value, method or credit rating level set in a *statement of regulatory intent* is justified in a distribution determination, the *AER* must consider:

(1) the criteria on which the value, method or credit rating level was set in the *statement of regulatory intent* (the **underlying criteria**); and

(2) whether, in the light of the underlying criteria, a material change in circumstances since the date of the statement, or any other relevant factor, now makes a value, method or credit rating level set in the statement inappropriate.

(i) If the *AER*, in making a distribution determination, in fact departs from a value, method or credit rating level set in a *statement of regulatory intent*, it must:

(1) state the substitute value, method or credit rating level in the determination; and

(2) demonstrate, in its reasons for the departure, that the departure is justified on the basis of the underlying criteria.

Proposed revised Clause 6.5.4

(c) The *AER* must, in consequence of a review, issue a statement (a *statement of regulatory intent*) adopting values and methods for *Distribution Network Service Providers* or for specified classes of *Distribution Network Service Providers*.
(d) [[clause (d)(4) and (d)(6) to be deleted]]
(e) [[clause (e)(1), (e)(2) and (e)(3) to be deleted]]
(4)(f) A *statement of regulatory intent* adopting a revised value or method applies only for the purposes of a *building block proposal* submitted to the *AER* after publication of the *statement of regulatory intent*.
(g) [[delete clause (g)]]
(h) [[delete clause (h)]]

Finally, we note that additional changes to the Rules will be needed to implement an annually varying cost of capital in place of the current arrangement where the cost of capital is fixed for the five year regulatory control period. Various solutions are possible including the use of true-up (correction) mechanism. This would entail the use of an estimate of the rate of return for the regulatory period, which is then corrected at the end of each year of the regulatory control period after the difference between the estimated and corrected rate of return for each year of the regulatory period is known. The most efficient way to design the regulatory algebra to accommodate the change we have proposed, will require further analysis. We have not yet undertaken such analysis but propose to consult with the AEMC to develop an appropriate solution.

5 Cost / benefit analysis and delivery of the NEO

The guidelines for submission of a rule change application requires the proponent to establish the costs and benefits of their proposal and also to explain how it better delivers the NEO. This section has been written to fulfil this requirement. It does not present new material, but rather re-orders analysis, argument and information already presented in the previous chapters of this proposal.

Section 2 of this application describes the problems with the Rules in relation to the calculation of the return on debt of errors of commission (the wrong benchmark has been specified) and errors of omission (insufficient weight is placed on actual debt costs). The section attributed this error specifically to the requirements set out in Clause 6.5.2(e) of the Rules.

The evidence presented in Table 1, 2 and 3 showed that for both government and privately owned NSPs, the actual cost of debt was consistently below the allowed return on debt, even during the Global Financial Crisis.

As a consequence of this, network service providers receive a significantly higher return on their debt than it is costing them. This, by definition, is contrary to the NEO which requires that electricity users only bear efficient costs, and by implication that the regulatory determination of the allowed return on debt should be efficient.

The excessive return on debt delivers excessive profits to the NSP's owners, at the expense of higher prices to consumers. Table 4 quantified this excessive profit as being around $1.2bn in 2011. These profits can be characterised as "windfalls", since they require the management of the NSP to incur no effort or risk to achieve them – they are delivered purely as a result of a flawed regulatory design. The excessive profit translates into average retail electricity prices that our analysis suggests would be around 7% lower in 2011 were it not for this error.

The excessive profit (and consequential impact on prices) is most marked for government-owned network service providers since the Rules in general and clause 6.5.2(e) in particular discriminates in favour of government-owned NSPs by assuming falsely, by definition, that government owned network service providers are privately owned and source their debt in capital markets in the same way as privately owned NSPs. They do not, their debt is arranged by their respective state government treasuries. The

management of NSPs owned by state governments have no role in issuing the debt that resides on their NSPs' balance sheets.

Section 2.3.2 and Figure 4 provided evidence to suggest that the excessive allowed return on debt has provided an incentive, particularly for government-owned NSPs, to inflate their regulated asset bases. The Committee does not suggest that flaws in the Rules in respect of the rate of return on debt is the only factor that has led to this. Indeed there are several other factors that may explain this outcome as set out in Mountain and Littlechild (2010) and Mountain (2011). Nonetheless the Committee submits that an excessive allowance on debt is likely to be a significant contributory factor in explaining the excessive over-investment, an outcome obviously contrary to the NEO.

The Committee has proposed solutions to this that are consistent for both government and privately owned NSPs, in their recognition of the actual cost of debt:

- In the case of privately owned NSPs, the Committee proposes that the return on debt for each year in a regulatory control period is to be established through a five year rolling average of the Fair Market Value yield of five year investment grade (broad BBB and A rated) corporate debt issued in Australia;
- In the case of government-owned NSPs, the Committee proposes that the return on debt for each year during a regulatory control period should be based on the average yield to maturity (for the previous calendar year) of all bonds issued by the respective state governments and which have between three and seven years to maturity.

These proposals reflect advice to the Committee, provided by CEPA. The detailed rationale to support these proposals is set out in CEPA's report and is summarised in Section 3.2 of this application.

Finally, the hypothetical application of this approach in 2011 would deliver a return on debt of 5.49% for government owned NSPs in New South Wales and Queensland, 5.55% for NSPs in Tasmania and 7.58% for privately owned NSPs in South Australia and Victoria. Table 9 showed that the hypothetical application of this approach in 2011 would reduce regulated revenues to all NSP by approximately $1.1bn, resulting in average retail price reductions of 6.3%.

The impact of this proposal on NSP profits, in the absence of other adjustments by NSPs, is likely to be significant although impossible to quantify with certainty.

Similarly, the impact of this proposal on the efficiency of capital expenditure, particularly by government-owned NSPs, is likely to be significant although, again, impossible to quantify with certainty.

The Committee submits, on the basis of the evidence provided, that this application for changes to the Rules will manifestly contribute to the better delivery of the NEO and the Committee therefore commends it to the AEMC for its consideration.

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Annex 1. Detailed description of debt issued to government-owned NSPs

Entity	Interest rate paid in 2009/10	Description of debt
Ergon	6.3%[31]	Almost all Ergon's debt is to the Queensland Treasury Corporation (QTC). The indicated interest rate includes a Competitive Neutrality Fee charged in 2010 of $12.38m plus an accrued Competitive Neutrality Fee of $2.57m. On the basis of total loans to QTC of $4130.5m, this equates to a fee stated as margin on the total debt of 0.36%. Other fees include an Administration fee and Capital Markets Fee. The Ergon Annual Report states that the Competitive Neutrality Fee is charged in order to ensure that Ergon does not obtain an economic benefit from funding at a lower cost through QTC than could be achieved by a private sector operator. These fees are not quantified. By implication: - • the 0.36% charge represents what QTC would calculate to be the difference between the cost of debt as if Ergon was treated as publicly funded, and the cost of debt as if it was privately funded • the cost of debt of 6.3% represents QTC's estimate of the rate that lenders would charge Ergon if it was privately owned.
Energex	**5.8%**[32]	Energex is also a government-owned distributor in Queensland. It was charged a Competitive Neutrality Fee of $12m. The same comments in relation to this fee described above in relation to Ergon, also apply to Energex. Based on Energex's debt to QTC, the CNF equates to a rate of 0.29% on that debt. Again, as for Ergon, the implications of this can be stated as follows: • the 0.29% charge represents what QTC calculates to be the difference between the cost of debt as if Energex was treated as publicly funded, and the cost of debt as if it was privately funded • the cost of debt of 5.78% represents QTC's estimate of the rate that lenders would charge Energex if it was privately owned.
Powerlink	5.65%[33]	Powerlink is a government-owned transmission network service provider in Queensland. Like Energex and Ergon. QTC manages Powerlink's debt on behalf of the Government of Queensland. A Competitive Neutrality Fee is not mentioned in Powerlink's annual report.
Essential	7.4%[34]	The Government of New South Wales charges Essential Energy a

[31] Page 52, annual financial statements for the year ended 30 June 2010.
[32] Based on data on page 37 of Energex's Financial Report.
[33] Based on data on page 31 of Powerlink's annual financial statements.

Entity	Interest rate paid in 2009/10	Description of debt
Energy		"Government Guarantee Fee". This fee is calculated in accordance with NSW Treasury Accounting Policy TPP04-2. That document says that the purpose of the *Government Guarantee Fee Policy for Government Businesses* is to ensure competitive neutrality between Government businesses and their private sector counterparts, with respect to the cost of debt. The guarantee fee rate is the difference between a market interest rate for a business of similar risk and the cost of debt obtained from TCorp, which borrows using the State's credit rating. A rate is calculated based on short term lending rates (three month) and long term lending rates (five year). The Annual Report does not disclose the level of the Government Guarantee Fee.
Endeavour Energy	6.2%[35]	Endeavour Energy is also a government owned corporation like Essential Energy and so is also liable for Government Guarantee Fees, as described above for Essential Energy.
Ausgrid	5.9% on fixed rate loans and 4.7% on floating rate loans	Ausgrid is also a government owned corporation like Essential Energy and so is also liable for Government Guarantee Fees, as described above for Essential Energy.
TransGrid	6.2%[36]	Transgrid is also a New South Wales Government owned corporation like Essential Energy and so is also liable for Government Guarantee Fees, as described above for Essential Energy. However, their Annual Report does not mention Government Guarantee Fees.
Aurora	6%[37]	Aurora is wholly owned by the Government of Tasmania and its debt is provided by the Tasmanian Treasury. Aurora's annual account show a loan guarantee fee of $6.8m and an interest payment of $54.15m on loans of $1.03bn. This suggests: • A cost of debt (before loan guarantee fee) of 5.3%; • A loan guarantee fee equivalent to a 0.7% margin on the total loans. The loan guarantee fee is not described in the annual accounts but presumably it is conceptually equivalent to the Competitive

[34] The annual report does not disclose the interest rate. This rate reflects the quotient of the stated interest cost of $243.6m and the interest bearing liabilities of $3.282bn. (on pages 87 and 101 respectively of the annual financial statements

[35] The Annual Report does not disclose the average interest rate. This rate reflects the weighted average rate for secured short term and long term debt.

[36] This is calculated as the quotient of finance costs of $139m (page 91 of the Financial Report) current borrowings of $320m and non-current borrowings of $1891m (page 90 of the Financial Report)

[37] Based on interest payments of $60.9m on loans of $1.03bn (based on data on Page 75 of the Annual Report)

Entity	Interest rate paid in 2009/10	Description of debt
		Neutrality Fee in Queensland or Government Guarantee Fee in New South Wales.
Transend	6.89%[38]	Transend is the monopoly transmission network service provider in Tasmania. It is a wholly-owned subsidiary of the Tasmanian Government. Transend's annual report does not mention a loan guarantee fee.

[38] Based on finance costs of $35.735m and loans of $518m