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Mr John Pierce
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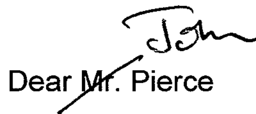

Dear Mr. Pierce

Energy Users Rule Change Committee (EURCC) Rule Change Proposal

Please find attached a submission from NSW Treasury on the EURCC rule change proposal currently before the AEMC (ERC0134 and ERC0135). An associated paper from TCorp is also attached. It provides a suggested approach for setting the cost of debt, relevant to both the EURCC and AER proposals.

This submission addresses only those elements of the proposed rule change focusing on the operations and funding of the state owned electricity businesses. The NSW Government supports prices being as low as possible, consistent with National Electricity Objectives.

The Government will continue to monitor the rule change process and, if appropriate, may present an additional submission. We appreciate the need to strike the right balance between supporting the investment necessary for maintenance of network reliability on one hand and preventing overinvestment, leading to unnecessary price increases on the other hand.

The NSW Government recognises the pressure that rising electricity prices have placed on households and businesses. The Government has already announced a number of measures to reduce the upward pressure on prices, including:

- Investigating reforms to the distribution businesses to save costs;
- Reviewing the reliability standards imposed on network businesses;
- Determining a fair price for small-scale generated solar energy; and
- Increasing harmonisation between NSW and Victoria's energy efficiency schemes.

The NSW Government supports reducing upward pressure on electricity prices. Further, the Government considers that the EURCC's proposed rule changes would not be consistent with the National Electricity Objective and would not be in the long term interests of the people of NSW.

In particular:

- Tax payments are a cost borne by every business. Tax is not a return on equity because it is paid to the States rather than the Commonwealth; and
- Debt margins incurred by the businesses are a cost paid to their debt provider in recognition of the risk and costs of default.

Improving allocative efficiency has been a reform focus for Commonwealth and State Governments for more than two decades. The Competition Principles Agreement, which obliges State Governments to impose tax equivalent payments and debt guarantee fees on their commercial businesses, is an agreed policy response designed to minimise distortions and equalise investment incentives across Government and Private sectors, for the benefit of all Australians. The EURCC's proposal runs contrary to these reforms.

Finally, the return on equity quoted by the EURCC in support of their arguments of excessive returns to Government is not accurate as it applies to both network and retail business operations. The actual return on equity for the network businesses for 2010 was 5.5% when the non-regulated returns from the retail businesses are removed.

Please do not hesitate to contact Treasury if we can be of any further assistance to your deliberations.

Yours sincerely

Philip Gaetjens
Secretary

The Treasury

23 December 2011

Submission to AEMC on Economic Regulation of Network Service Providers Rule Change Request

Office of Financial Management

1 Introduction

This submission responds to the Australian Energy Market Commission's (AEMC) Consultation Paper "Consolidated Rule Request – National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2011".

The rule change request from the Energy Users of Australia Rule Change Committee proposes discriminatory treatment for Government owned Network Service Providers (NSP's). NSW Treasury does not support the rule change proposal.

The EURCC's request seeks to replace the forward looking benchmark methodology for the calculation of the cost of debt component of the rate of return allowance with a debt cost based on an index of historic debt costs. For Government owned NSP's, the request goes further and seeks to replace the benchmark cost with an index of the historic cost of debt of the Government owner of the NSP and not the NSP businesses themselves.

NSW Treasury considers that the rule change proposal would result in:

- a fundamental breach of the Competition Principles Agreement (CPA);
- inappropriate discrimination between network businesses based on ownership;
- taxpayers not receiving appropriate compensation for the risk of lending to the NSPs; and
- a reduction in allocative efficiency as a result of the distortion in resource allocation.

NSW Treasury is also concerned that the Rule change proposal does not accurately present the relevant facts used to justify the proposal. In considering this issue, NSW Treasury considers that that the Commission should use actual network business data, as provided in this submission.

The EURCC claims are not correct as:

- They have attributed all profits from the combined businesses to the network businesses and assumed no profit from the retail businesses. When this error is corrected, returns fall from 16.5% to 5.5%;
- They include the Government Guarantee Fee (GGF) as part of the returns. These fees are not profit but compensation to the Government for risk—a fee for service; and
- They include Tax Equivalent Regime (TER) payments as part of the returns. These are not profit, but equivalent to tax payments by the private sector. State Governments are required by the CPA and the current Intergovernmental Agreement on Federal Financial Arrangements to collect tax equivalents for all government owned businesses to ensure competitive neutrality and efficient resource allocation.

While this submission focuses on the discriminatory treatment proposed for Government owned NSPs, systematic changes to the setting of the debt benchmark need to be carefully considered. The EURCC uses as its yardstick a comparison between a forward looking benchmark and the historical cost of debt to the NSPs at one point in time. We believe more considered analysis is needed. Comments from NSW Treasury Corporation on these issues are attached.

2 Claims relating to Government NSPs

For Government owned NSPs, the EURCC rule change proposal seeks to replace the benchmark cost with an index of the historic cost of debt of the Government *owner* of the NSP—not the NSP itself.

The EURCC bases this unprecedented "looking through" the ownership structure of the legally separate and distinct NSPs on a number of assertions:

- The NSW Government is *"deriving extraordinary returns from their ownership of NSPs"*, returns which are *"three times higher than what the AER considers to be a reasonable return on investment"*[1]
- Government owned NSPs *"have access to low cost government debt"*[2]
- Access to *"low cost government debt"* incentivises *"inefficient overspending"*[3]
- That the debt guarantee fee charged by Governments is inconsistent with the Competition Policy Agreement and competitive neutrality policies[4]
- That Government owned NSP's *"are unable to respond to regulatory incentives to minimise their debt costs"*

2.1 Is the NSW Government deriving extraordinary returns?

The EURCC claims that the NSW Government is *"deriving extraordinary returns form their ownership of NSPs"* with returns on equity of 29% that are *"three times higher than what the AER considers to be a reasonable return on investment"*.

They calculate the 29% return by adding Tax Equivalent (TER) Payments and the Government Guarantee Fee (GGF) to the Profit after Tax for the 2010 financial year.[5] However, as discussed in the next sub section, there is a material error in the Profit after Tax (return on equity) which they claim is 16.5%. The correct figure is 5.5%.

The EURCC acknowledge that the Profit after Tax of 16.5% includes both network and retail profits but attribute all of the profit to the network business. They incorrectly make this assumption on the basis that there is no information available that separates the financial accounts of retail and network operations.

Material error—the removal of retail returns

However, profit after tax for the separate retail and network activities for 2010 are now available in the 2011 Annual Reports of the NSPs and are shown in Table 2.1:

Table 2.1: Segment Net Profit after Tax - 2010

Distributor	Total $M	Retail $M	Network $M
Ausgrid	$345.0	$294.8	$50.2
Essential Energy	$162.3	$108.2	$54.2
Endeavour Energy	$179.0	$65.5	$113.4
Total	$686.3	$468.5	$217.8

[1] EURCC rule change request, page 6, paragraph 6

[2] EURCC rule change request, page 33, paragraph 5

[3] EURCC rule change request, page 22, paragraph 5

[4] EURCC rule change request, page 6, paragraph 4

[5] Note that the actual addition of these components is 28.3%.

Table 2.1 shows that once the returns from retail operations are removed, returns from the network businesses drop from 16.5% to 5.5%[6].

The Government Guarantee Fee is not a return on investment

The Government Guarantee Fee (GGF) is a fee for service. It is compensation to the Government (and taxpayers) for the real risk that the Government accepts in borrowing using its AAA rating and on lending to entities that have lower credit ratings. Companies with lower than AAA credit ratings have an increased risk of failure—which is why debt premiums vary with credit ratings. Table 2.2 shows the credit rating agency Moody's default probabilities of failure.

Table 2.2: Moody's - Default Probabilities of Failure

Default Rates	A2	A3	Baa1	Baa2	Baa3	A1	Ba1	Ba2	Ba3	B1	B2	B3
Years												
1	0.03%	0.03%	0.14%	0.14%	0.29%	0.02%	0.68%	0.73%	1.79%	2.45%	3.83%	7.67%
2	0.09%	0.15%	0.36%	0.43%	0.82%	0.15%	1.86%	2.07%	4.95%	6.80%	9.12%	15.14%
3	0.24%	0.32%	0.62%	0.80%	1.46%	0.37%	3.36%	3.76%	8.87%	11.36%	14.39%	22.34%
4	0.45%	0.46%	0.87%	1.37%	2.13%	0.54%	4.86%	5.61%	12.93%	15.36%	19.20%	28.74%
5	0.64%	0.71%	1.09%	1.85%	2.93%	0.69%	6.28%	7.23%	16.21%	19.51%	23.23%	34.26%
6	0.89%	1.00%	1.29%	2.32%	3.74%	0.79%	7.79%	8.43%	19.23%	23.58%	27.01%	39.64%
7	1.23%	1.20%	1.55%	2.76%	4.46%	0.87%	8.89%	9.66%	22.02%	27.85%	30.51%	44.08%
8	1.62%	1.43%	1.73%	3.18%	5.19%	0.94%	9.65%	11.01%	24.76%	31.31%	33.50%	48.02%
9	1.96%	1.66%	1.86%	3.67%	5.86%	1.00%	10.35%	12.33%	27.19%	34.19%	36.61%	50.95%
10	2.21%	1.80%	2.09%	4.29%	6.52%	1.08%	11.12%	13.37%	29.60%	36.72%	39.11%	53.68%

It is wrong to classify the GGF as some type of "profit" as the EURCC does—it is appropriate compensation for the acceptance of real risk. It is no different to banks and financial institutions charging debt risk premiums based on credit ratings of the borrower.

Further, the GGF calculation methodology is market based—that is, it is informed by the observed difference in the capital markets between AAA rated debt and debt with the same rating as the NSP's standalone rating—usually BBB.

Payment of the GGF by NSPs is a legislative requirement under Section 22D of the NSW Public Authorities Financial Accommodations Act. Thus the payments are part of the efficient costs that an NSP must be given the opportunity to recover.[7] It is not clear that the AEMC could make rules that did not allow an NSP the opportunity to recover unavoidable costs such as the GGF.

If State Governments did not charge a market based fee—and they must under the CPA as we show in Section 2.4—or were prevented from recovering the fee by the mechanisms such as the proposed rule change, their credit ratings would come under threat. Rating agencies would be quick to see that Governments were taking uncompensated risks.

Tax Equivalent Payments are not a return on investment

Tax equivalents aren't profit as asserted by the EURCC. State Governments are required by the CPA as detailed in Section 2.4 and the current Intergovernmental Agreement on Federal Financial Arrangements to collect tax equivalents for all government owned businesses. The Tax Equivalent Regime (TER) applied by the State is no different to the company tax regime applied by the Commonwealth—both are legitimate and unavoidable costs of doing business—it's only that the beneficiary changes.

[6] Pro rated from the Audit Office's 16.5%, adjusted for net assets attributable to discontinued operations as reported in the NSP's 2011 annual reports.

[7] Section 7A (2) of the NEL

TER payments by NSPs are a legislative requirement under Section 20T of the NSW State Owned Corporation Act. Thus they are part of the efficient costs that an NSP must be given the opportunity to recover.[8] It is not clear that the AEMC could make rules that did not allow an NSP the opportunity to recover unavoidable costs such as TER payments.

Summary of claims of excess return

None of the so called *"extraordinary"* returns for the NSW Government stand up to analysis and scrutiny. They are either appropriate compensation for actual risk, normal benefits of ownership or are illusionary. The Government's equity returns are below the AER allowance and the GGF and TER cannot be considered as part of the returns to Government.

2.2 Access to Low Cost Government Debt?

The EURCC incorrectly asserts that Government owned NSPs *"have access to low cost government debt"*—that is that Governments can borrow at lower rates than the private sector.

To the contrary, Governments—on a risk adjusted basis—have the same cost of borrowing as the private sector because they must raise debt in the same capital markets as private sector borrowers. Entities (public or private) with higher credit ratings will borrow at a lower cost of funds than those entities with lower credit ratings.

It is true that State Governments in Australia tend to have higher credit ratings than many private sector borrowers. However, on a risk adjusted basis State Governments don't have access to cheaper debt—any AAA rated private or public entity can borrow at similar margins to the NSW Government.

NSPs only have access to "low cost" debt because of taxpayer guarantees. The debt of Government NSPs is raised by the Government and guaranteed explicitly. In return for this access they pay a fee—the Government Guarantee Fee (GGF)—a fee for service as discussed previously.

Governments have finite borrowing capacity

In common with private sector companies, State Governments do not have unlimited capacity to borrow.

The NSW Government has a clear policy to maintain its AAA credit rating. The key ratings review trigger for Standard and Poor's is the ratio of net financial liabilities to operating revenue over the medium term, which they have identified as needing to stay below 120-130% to avoid triggering a rating review. This is discussed in Chapter One of the NSW Government's Budget Paper Two (BP2) for 2011-12. The ratio is shown in Chart 1.7 in BP2.

Government Debt has an opportunity cost

The Government must make resource allocation decisions. The cost, therefore, of additional debt for the electricity sector is the foregone opportunity to invest taxpayers' funds elsewhere. Opportunity cost is the appropriate comparator—not the average cost of debt.

Thus the marginal cost of debt to the Government is not the *"average yield to maturity on bonds with between three and seven year to mature"* as asserted by the EURCC, but the cost of the forgone opportunity to invest taxpayer's funds in other sectors of potentially greater social or economic benefit.

If the Government was to provide debt at AAA rates to their NSPs this would amount to a taxpayer funded subsidy. The Government could choose to invest those funds in schools and hospitals or other investments which can have a higher social and economic benefit.

[8] Section 7A (2) of the NEL

2.3 Inefficient Overspending?

The EURCC assert that having access to *"low cost government"* debt incentivises *"inefficient overspending"*. They also state that by *"....revaluing NSP assets state governments create additional equity on NSP balance sheets. This creates room to increase borrowings by NSPs (from state government treasuries)"*.[9]

This inefficient overspending and propensity for treasuries to borrow more is allegedly motivated by the wide gap between the cost of debt—as estimated by the EURCC—and the AER allowed return.[10]

Who has the incentive?

The NSPs are separate corporate entities with independent Boards and are accountable to provide commercial returns to their owners.

It is assumed that the EURCC incorrectly believe that the prospect of increased profit and borrowing capacity motivates State treasuries to influence NSPs into neglecting their accountability for commercial returns and indulge in "inefficient overspending".

Government incentives are to reduce not increase NSP debt

The incentive of State governments is to reduce—not increase NSP borrowings. This is because the ratio of net financial liability to operating revenue—the rating review trigger ratio is more sensitive to increases in capital stock than any other factor. Consider the impact of an additional $1.0 billion of inefficient overspending on network assets by an NSP. Financial liabilities would rise by $1.0 billion, but operating revenue would only increase in the order of $120 million.[11] It is difficult to see that state treasuries and governments would be incentivised by the "profit" allegedly arising from the debt margin to allow their NSPs to "inefficiently overspend" when such actions move the state closer to credit rating review trigger points.

Understanding the credit rating review trigger ratio also demonstrates that revaluation of NSP assets cannot "*...create room to increase borrowings by NSPs (from state government treasuries)"* as claimed by the EURCC. The ratings review trigger is on the basis of the ability to service debt—so revaluations do not increase borrowing capacity. There is no *"pecuniary benefit"* as stated by the EURCC.[12]

In the private sector, revaluations of corporate asset bases aren't considered profits. In normal circumstances such gains are not distributed as dividends and no tax is paid on unrealised revaluation gains. Also in the private sector, asset revaluations do not increase borrowing capacity. Credit rating agencies have little interest in revaluations of asset, just ability to service debt.

2.4 Inconsistent with the CPA and competitive neutrality policies?

The EURCC asserts that allowing Government owned NSPs to charge users for debt as if they are privately owned is inconsistent with the Competition Policy Agreement (CPA) and competitive neutrality policies.

They support this assertion with a quotation from the Commonwealth Competitive Neutrality Statement—that does not apply to State Government owned businesses. However, given the importance of the issue to the justification for their proposal, we have analysed the substance of their claim against the Competition Policy Agreement and the NSW Competitive Neutrality Statement (NCNS).

[9] EURCC rule change request, page 34, paragraph 4

[10] EURCC rule change request, page 22, paragraph 4

[11] Assuming a regulated return of 9% and 3% depreciation

[12] EURCC rule change request, Table 6

Does the CPA support the EURCC proposal?

The extracts from the CPA (Attachment One) show that the CPA:

- Has as a primary objective the efficient allocation of resources
- The clause concerning price oversight of Government businesses also has a principal objective of efficient resource allocation
- The Competitive Neutrality Principles require all jurisdictions to:
  - impose full Commonwealth, State and Territory taxes or tax equivalent systems;
  - impose debt guarantee fees directed towards offsetting the competitive advantages provided by government guarantees; and
  - ensure that prices charged by government business take into account the objective of efficient resource allocation.

The CPA and the Competitive Neutrality Principles apply to all Government businesses that undertake significant business activities.

Does the NCNS support the EURCC Proposal?

The extracts in Attachment One show that there is no mention of the need for competition for the statement to apply. That qualification is only contained in the general pricing guidelines. This is because the general pricing guidelines only apply in relation to complaints from the private sector. If a private sector entity has a competitive neutrality complaint, then the complaints body (IPART) would use the pricing guidelines to assess the merits or otherwise of the complaint.

In other words the NSW competitive neutrality statement does not limit application only to those entities where there are actual or potential competitors.

2.5 Government NSPs and debt management incentives

The EURCC consider that as Government NSPs are unable to respond to regulatory incentives to minimise their debt costs, there would be no loss of efficiency incentives in basing their debt costs on the actual cost of debt of their owners.

This is not the case for Government owned NSPs in NSW. While debt is provided through TCorp, the NSPs themselves determine the underlying debt portfolio, including:

- Term to maturity;
- Proportion of fixed and floating rate bonds; and
- Proportion of CPI linked instruments.

Thus in NSW, Government owned NSPs can respond to regulatory incentives in a similar way to private sector NSPs.

3 Impact on Proposed Rule Change

In contrast to the EURCC claim that their rule change request would be likely to contribute to the attainment of the National Electricity Objective, it has the potential to cause substantial economic harm to both private and publically owned NSPs, their customers and to State Governments and taxpayers.

As the rule change request discriminates between private and publicly owned NSPs, the adverse effects are different.

3.1 Impact on Private NSPs

For privately owned NSPs, the rule change request would be a major shift in the balance inherent in the current energy regulatory framework between incentives and regulation to

ensure that appropriate levels of investment to maintain reliability and service standards is forthcoming. A move from a forward looking benchmark cost of debt approach to one that is more aligned to historical cost at a point in time would possibly eliminate the current incentives for capital investment and risk under investment in electricity networks.

Such an outcome may not be immediately obvious as there will be a long lag between the implementation of such a change and the resulting impact on network reliability and quality of service. In addition, once the results of the lack of investment become clear it will take many years to correct. This will occur both because of the amount of physical technical work that will be needed but more importantly the time for investors to develop confidence that their investments will be appropriately rewarded.

3.2 Impact on Public NSPs

A subsidy from taxpayers to NSPs

The effect of the rule change on Government owned NSPs would be a subsidy from taxpayers to NSPs. This is because taxpayers would not be compensated for the risks they are underwriting by providing debt at AAA rates to lower rated entities.

Like all subsidies it would be inefficient and would distort resource allocation. Paradoxically, the EURCC consider their rule change would actually reduce resource allocation distortions.

It could lead to over investment

The rule change request could result in over investment by Government NSPs.

This is because the subsidy would give Government owned NSPs an artificially low cost of capital. The EURCC considers that as NSPs are monopolies there wouldn't be a resource allocation distortion. But having an artificially lower cost of capital means that for NSPs:

- Network solutions may now be more economic than non-network solutions such as demand management or embedded generation;
- Solutions involving investment (capital expenditure) may now appear to be lower cost than solutions involving operating expenditure, labour or non-asset solutions; and
- Traditional insourced capital investment may appear artificially cheaper than alternative private sector or outsourced solutions such as alliance partnerships or build-own-transfer.

This could lead to over investment in networks. The EURCC argue that NSP boards could overcome these problems by setting hurdle rates above the Weighted Average Cost of Capital (WACC) allowed by the regulator. This would be demonstrably non-commercial as any project that returns its WACC should be pursued to increase profitability. It would also be inconsistent with the statutory objectives of the SOCs which is *"... to be a successful business and, to this end to operate at least as efficiently as any comparable businesses and to maximise the net worth of the State's investment in it".*[13]

At the margin, NSPs are in competition with:

- Providers of demand management services and embedded generation;
- Gas networks for some domestic, commercial and industrial applications such as water and process heating; and
- Other electricity networks for major energy intensive or price sensitive users.

Significant disadvantage and resource allocation distortions might arise from this NSP subsidy. In particular, proponents of demand management services and embedded generation currently claim that NSPs and the regulatory framework are biased against these non-network solutions—this proposal would add a real element to that perception.

[13] Energy Services Corporation Act

Attachment One – Extracts from the Competition Policy Agreement and NSW Competitive Neutrality Statement

The Competition Policy Agreement

In the **Interpretation** it states:

(3) Without limiting the matters that may be taken into account, where this Agreement calls:
(a) for the benefits of a particular policy or course of action to be balanced against the costs of the policy or course of action; or
(b) for the merits or appropriateness of a particular policy or course of action to be determined; or
(c) for an assessment of the most effective means of achieving a policy objective; the following matters shall, where relevant, be taken into account:
....
(j) the efficient allocation of resources.

In the **Prices Oversight of Government Business Enterprises it** states:

(4) An independent source of price oversight advice should have the following characteristics:
(a) it should be independent from the Government business enterprise whose prices are being assessed;
(b) its prime objective should be one of efficient resource allocation but with regard to any explicitly identified and defined community service obligations imposed on a business enterprise by the Government or legislature of the jurisdiction that owns the enterprise;

In the **Competitive Neutrality Policy and Principles** it states:

3.(1) The objective of 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. These principles only apply to the business activities of publicly owned entities, not to the non-business, non-profit activities of these entities.

.....
4.(b) the Parties will impose on the Government business enterprise:
(i) full Commonwealth, State and Territory taxes or tax equivalent systems;
(ii) debt guarantee fees directed towards offsetting the competitive advantages provided by government guarantees; and

....
5.(b) ensure that the prices charged for goods and services will take account, where appropriate, of the items listed in paragraph 4(b), and reflect full cost attribution for these activities.

...
(8) Each Party will publish a policy statement on competitive neutrality by June 1996. The policy statement will include an implementation timetable and a complaints mechanism.

The NSW Competitive Neutrality Statement

In **Application of Competitive Neutrality** in NSW it states:

In New South Wales, the competitive neutrality requirements indicated in Clause 3 of the CPA have been applied to all Government businesses that undertake significant business activities, irrespective of ABS classification.[14]

[14] Page 5, paragraph 1

In **General Pricing Guidelines** it states:

> *The Pricing Guidelines apply where goods or services are sold into markets in competition, or potentially in competition, with private sector or other Government suppliers (unless the delivery of a good or service is for a social program purpose)*[15]

[15] Page 14, paragraph 1

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22 December 2011

Mr. John Pierce
Chair
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

John,

Dear Mr Pierce

Prudent Risk Management for Regulated Utilities

TCorp and the Regulated Utilities

TCorp is responsible for providing debt funding to nine regulated utilities that are subject to either the Australian Energy Regulator or NSW IPART. Our role in providing debt finance to NSW makes us the largest provider of debt finance to the Australian regulated utility sector. The nine utilities are:

- Sydney Water (IPART)
- Sydney Desalination Plant (IPART)
- Sydney Catchment (IPART)
- Hunter Water (IPART)
- State Water (IPART)
- TransGrid (AER)
- Ausgrid (AER)
- Endeavour Energy (AER)
- Essential Energy (AER).

TCorp's central objective is to provide debt in a prudent and efficient way, having regard to the needs of each specific business as well as NSW's overall funding profile. Debt outcomes in the regulated utility sector influence the maintenance of NSW's AAA credit rating. In TCorp's opinion, regulatory pricing rules must be consistent with prudent debt management objectives.

Implications of Regulatory Rate Observation on a Prudent Funding Strategy

In recent years the regulated asset base of many NSW regulated utilities has increased as new capital spending projects have been implemented. In the four years since 30 June 2007, the aggregate debt of the nine regulated utilities has increased from $12.1bn to $23.7bn.

The analysis of the funding maturity of this new debt at the time of drawdown by the utility indicates that the average term of this debt is 9.8 years, and the longest maturity date was 2039. This debt life was achieved using a combination of fixed rate and capital indexed loans with long maturity dates.

Just as consumers pay for water dam construction to standards that can withstand seismic shocks, consumers also pay for debt profiles that are able to withstand financial shocks. Dam or business failure events are intolerable for consumers, so dams and debt portfolios are engineered to withstand such risks. TCorp's strategy is to fund debt in a prudent and cost efficient way by securing debt finance to an average of 10 years. The long debt life is an important part of maintaining NSW's AAA credit rating, as well as being consistent with the longer term economic life of regulated utility assets.

The risk of not prudently managing refinancing risk has been very apparent over recent years, for both sovereign and private sector borrowers. Limiting the amount of debt that needs to be refinanced over the short term minimises the risk of lenders withdrawing their support. When funding very long economic life assets it is important that the term of borrowings is also long term. Given the constraints of the Australian debt capital markets accessing the required volume of long term funding is not always possible. This risk is then managed by spreading borrowings and limiting the amount that needs to be refinanced at one point in time or over the short term (for example, in any given 12-month period).

Regulated utility capital providers are required to make very long term investment decisions to commit their capital (debt and equity) to finance network assets which typically have an economic life of 20 to 50 years. The financing of the assets necessitates a very long term commitment from bank lenders or capital market investors.

Notwithstanding the need to secure long term finance, under the current regulatory framework the return to the capital providers is re-set to market rates, generally each five years. Rates are reset using an observation period that spans only a few weeks to represent the benchmark cost of the entire debt portfolio.

From a debt risk management perspective a regulated utility owner needs to manage two key risks:

a. Funding or refinancing risk: the need to lock in long term debt finance to remove the risk that the debt provider withdraws funding support at any time over the term of the investment. This risk has been highlighted over the period of the Global Financial Crisis, for both government and corporate borrowers, where debt financiers have withdrawn their funding support, leading to an inability to access longer term funding and as a consequence, the company is forced into to a default or requires a significant equity injection;

b. Interest rate reset risk or re-pricing risk: within the debt portfolio, the need to have its interest rate re-price in line with the regulatory determination period, generally every five years. For example, fixing interest rates for a 10 year period introduces mismatch risk where the regulatory determination resets the WACC after five years.

In TCorp's view, regulators should provide the appropriate incentives and compensation for a prudently financed model utility benchmark. Some proposals being submitted to regulators ignore important implications and risks that would significantly impact the way that utilities are financed. For example, the proposal to shift to 5-year debt cost parameters assumes that TCorp can always refinance $24bn in regulated utility debts to 20-day periods every five years. The CAPM model assumes the refinancing would be possible, but financial market realities make the assumption imprudent. Likewise, the assumption that regulatory debt costs should match the utility's actual debt costs removes any incentives to manage debt costs efficiently. In

TCorp's view, the unintended consequences of these approaches would have detrimental impacts on utilities and consumers alike.

Implications of the Regulatory WACC Observation Period

Re-setting the interest rate of the debt portfolio each five years introduces a range of risks:

a. Sourcing of a matching physical funding instrument is not possible (i.e. a long-term five-year-resettable amortising real-rate bond is not an actively traded market instrument). The alternative is to use a mix of floating, fixed and CPI linked funding, sourced directly or by using derivatives, which seeks to broadly match interest rate re-set with the regulatory re-set;

b. The volume of interest rate reset risk that needs to be executed to match the rate implied within a regulatory determination is generally very large (for example, if all NSW transmission and distribution businesses re-sets at one time) and is beyond the liquidity constraints of the market particularly if execution is required to match a determination which is set off a very short reference period;

c. Given the volatility in interest rates, uncertainty around the timing of final determination and actual execution can potentially add a significant level of extra cost.

Currently, IPART and most other Australian regulators use a 20-day averaging period close to the decision day to observe the regulatory cost of debt. Short averaging periods make for less certain outcomes. That is, the volatility outcomes from 20-day averaging periods is significantly higher than would be the case using longer averaging periods. (IPART Discussion Paper – Averaging the WACC parameters for the cost of capital, November 2009.)

There is a deeply-held view that the 20-day moving average is the best predictor of future debt interest costs. Using data since 1997, TCorp is able to show that long-term averages provide a better predictor of future debt costs. The analysis shows that the long-term average of the Commonwealth bond rate has an average absolute error of 42 basis points for debt costs 1-2 years forward. The 20-day average of the Commonwealth bond rate has an average absolute error of 52 basis points. Counter-intuitively, the longer averaging period provides a better forward-looking estimate of future debt costs than the "prevailing conditions" estimate that currently applies.

Using a short averaging period methodology to establish a cost of debt for each year of the period adds significant (and uncompensated) repricing risks for utilities and consumers. If utility owners seek to hedge the repricing of debt in markets, limited market liquidity would potentially cause WACC parameters to rise significantly. Overall WACC costs would rise, as would utility prices being paid by consumers.

IPART and Ofgem have outlined proposals on changing how the cost of debt is determined. Different methods have been canvassed; a major shift is the proposal to use regular market observations on a continuing basis over the regulatory reset period to establish the risk free rate and debt risk premium. This would result in the debt rate moving more in line market movements, with the allowed cost reflecting a moving average of the risk free rate and debt risk premium over time.

Broadly speaking, there have been three alternative frameworks that regulators have considered:

a. A short-period observation for the cost of debt at each 5-year interval. The short averaging period makes for volatile outcomes. The 5-year resets create risk management issues for the debt portfolio manager. But the approach has the appeal that it reflects "prevailing conditions in the market for funds".

b. Rate observation updated at annual intervals within the regulatory period (the so-called "indexed" approach). This hybrid approach has appeal to regulators because it updates the cost of debt within the regulatory period, so prices are able to readjust to changes between years. But year-to year price movements will become more volatile, and debt portfolio hedging becomes implausibly difficult.

c. Ten year averaging period. The Ofgem approach takes the ten year average of ten year debt, for both the risk free rate and the debt risk premium, updated annually. That is, each year within the regulatory period, the ten-year debt cost is updated to the new ten year average, providing a *more* accurate estimate of future debt costs than the 20-day averaging approach. The ten-year averaging period also most closely reflects the actual debt costs of a model utility benchmark with prudently managed debt. Further, it is hedgeable.

In TCorp's opinion, the averaging period used for establishing the cost of debt should be consistent with a prudent debt management approach and stable prices. Prudent debt management will provide a smooth funding profile to at least a 10 year horizon. The averaging period for establishing the regulated cost of debt should therefore match the 10 year prudent financing period. The proposal would deliver both secure funding and more stable regulatory prices. Without a 10 year prudent financing period, the vulnerability to financial shock and risk of default rises significantly.

TCorp has a preference for the third (Ofgem) framework. The Ofgem framework accurately estimates the debt cost of a model utility benchmark with a prudently managed financing profile. In TCorp's view, the Ofgem framework would be expected to significantly defuse tensions around regulatory determinations:

- The specific choice of averaging periods. Central to the 2009 Tribunal appeal was the AER's choice of averaging periods. The current approach of a 20-day averaging period makes cost of debt outcomes extremely arbitrary.
- Financeability. Long averaging periods are consistent with how a prudent model utility benchmark raises debt finance.
- Synchronised debt reviews. Stable WACC parameters would allow debt reviews of different network businesses' regulatory periods to be de-synchronised.

In July 2010, Ofgem made the following recommendation (RPI-X@20) in regards to the cost of debt:

We are [...] proposing that, in future price controls, the cost of debt embedded in the allowed return is based on a long-term trailing average of forward interest rates, and that the revenues allowed under the price control are adjusted each year for changes in this trailing average. This annual adjustment for changes in the cost of debt would be entirely mechanistic, with the rules determined at the price control review. This would represent a type of uncertainty mechanism. Estimating the cost of debt on this basis should provide comfort that new debt, financed at efficient rates – even at levels higher than the allowed return - will be fully funded in the future.

Furthermore, customers would benefit from this approach as there would clearly be no need for headroom to be included in any future determinations.

In TCorp's opinion, a mechanism that updates debt cost parameters within the regulatory period would closely reflect the model utility's benchmark funding costs, allowing prices to gradually adjust to any changes in market conditions. However, annual updates would mark a shift from the current framework that establishes a constant rate for each year of the regulatory period and the impact of such a shift would need to be considered further.

Implications of the Regulatory WACC Reference Benchmark

For observations of the risk free rate (RFR), the choice between the 5 year RFR and a 10 year RFR has significant implications. In the period since 1997, the volatility of the 5 year RFR was 10% higher than the volatility of the 10 year RFR. Shifting to a 5 year RFR might introduce an unwelcome rise in price volatility. The 10 year RFR provides greater certainty and "financeability" than the 5 year RFR.

Debt Risk Premium Benchmark

TCorp agrees with Professor Davis that the cost of debt funding of a regulated utility business should reflect the long term cost of funds (or the credit spread) as the funds are required to be committed for a term well beyond the next 5 year regulatory period.

It is a fundamental principle of finance that, at any point in time, the effective cost of finance for a given term is the same, regardless of the combination of instruments used to achieve the financing (i.e. fixed or floating debt, swaps etc), or the shape of the yield curve. The credit funding spread is related to the risk of debt default – the longer the term of the debt, the higher the chance of default and therefore the higher the credit margin. TCorp's 10 year debt management strategy is consistent with 10 year rate observation for both the risk free rate and the debt risk premium. A 5 year rate observation is inconsistent with prudent debt management objectives and the actual cost of accessing term funding to finance network assets.

Australian privately-owned regulated utilities are able to source 10 year debt finance, but not in Australia. IPART began to examine the cost of USD-sourced debt finance, swapped back into Australian dollars. The most logical application of this enhanced dataset would be to observe the cost of 10 year debt from an appropriately large sample of companies with a similar benchmark credit rating. That is, using simple financial arithmetic for USD-sourced funding by Australian companies, regulators might easily be able to estimate the 10-year debt risk premium.

Yours sincerely
New South Wales Treasury Corporation

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