Submission

on

AER Draft Decision

for

New Gas Access Arrangement for Amadeus Gas Pipeline

June 2011

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EXECUTIVE SUMMARY

The Northern Territory Major Energy Users (NTMEU) is very disturbed at the lack of fairness and regulatory rigour in this access arrangement review.

On the one hand, the approach taken by NT Gas exhibits all the signs of regulatory gaming at its worse:

- Submission of commercial-in-confidence material to avoid public/stakeholder review
- Inflation of its already ambit capex and opex claims (made in the initial application) in the revised application, with limited opportunity for detailed scrutiny by the AER, as well as by the NTMEU and other stakeholders
- Disregard for the AER's draft decision on the elements that do not comply with the relevant provisions of the Gas Rules.

On the other hand, the AER's regulatory failings demonstrate how unbalanced this review is:

- The issue of PWC's claim of a capital contribution for the metering facility at Katherine has not been properly verified by the AER
- Accepting that NT Gas can make large windfall gains (adding 10% to its revenue) by manipulating its investment schedule in assessment of historical capex

- Failure to use historical capex as the benchmark for assessing future capex, which shows a massive increase, notwithstanding clear question about NT Gas's forecasting approach and its ability to efficiently manage capital implementation

- Failure to assess the manipulation of opex costs by use of a base year that is artificially inflated and thereby using this as the basis for assessing step changes, resulting in an overstatement of future opex

- Supporting NT Gas in non-disclosure of information about important aspects claimed to be commercial-in-confidence. Such aspects include the costs of the underlying step change increases which support a large increase in allowed opex.

- The AER draft decision to exclude any allowance for insurance even though the AER must be aware that such cost is an essential part of operating such a facility. The fact that historical opex clearly shows that insurance was a significant element of opex was ignored.

- Failure to recognise NT Government policy of moving to a more competitive electricity market and hence the potential for additional gas users (other than PWC) to emerge

- Continued making errors in determining WACC elements, especially the debt risk premium.

This review stands out because of the factors outlined above and detailed in this submission. The AER must exhibit a more rigorous approach in these regulatory reviews. The NTMEU is seriously disturbed by the lack of fairness, objectivity and regulatory rigour shown in this review to date.

1. Introduction

1.1 About NTMEU and its involvement

The Northern Territory Major Energy Users (NTMEU) welcomes the opportunity to provide comments on the draft decision made by the AER in respect of the NT Gas application for a new access arrangement as well as the revised arrangement. The NTMEU is affiliated with the Major Energy Users Inc and its regional affiliates in SA, NSW and Victoria and represents large energy users in the Northern Territory.

Whilst the NTMEU notes that the Amadeus Gas Pipeline (AGP) still remains essentially fully contracted to the NT government owned power provider Power and Water Corporation (PWC) the NTMEU highlights that the NT government is seeking to increase competition to PWC and to encourage new downstream investments in the Territory. The implication of the government thrust is that there is likely to be greater usage of the AGP in the coming years than by just PWC. Such new uses will include power generation as well as gas supplies for industrial purposes.

As the AGP now has a greater amount of unused capacity (especially for flows southwards from Ban Ban Springs) it is incumbent on the AER to ensure that tariffs it sets provide a realistic cost for gas transportation. This is the reason for the NTMEU involvement in the AGP revenue reset process.

1.2 A consumer overview of the NT gas market and AGP lifecycle

The AGP was built with a view that about now it would be no longer used as the gas in the Amadeus Basin would be exhausted. This meant that the AGP would have had to recover its capital cost by this time; ie that it would have to be fully depreciated and the investors would have recovered their original investment. The NTMEU is concerned

that the AER has, in its draft decision, not fully appreciated this fact, and seems to be exhibiting disconcerting ignorance about commercial realities. That the AGP has a new lease of life as a result of new gas finds and that its useful life can now be fully utilized is a windfall benefit to the owners of the pipeline.

But what would have occurred prior to the new lease of life is that AGP would have been managed to have little useful life once the Amadeus Basin was exhausted. In the early years, capex and, to a lesser extent, opex would have been minimized to maximise the return to the owners. It would only be in the last decade that the owners would have increased capex and opex in order to provide a well functioning asset able to benefit from the new sources of gas.

The NTMEU is concerned that AGP has not been well cared for, and the current claims from NT Gas reflect an attempt to have consumers pay again for work that should have been carried out earlier (and included in the regulated and negotiated tariffs of the time) but was avoided. This means that this delayed work will be paid for again by consumers if the AER allows this deferred work to be included in the next period capex and opex allowances. A review of the AER draft decision does not indicate that it has fully accepted this reality.

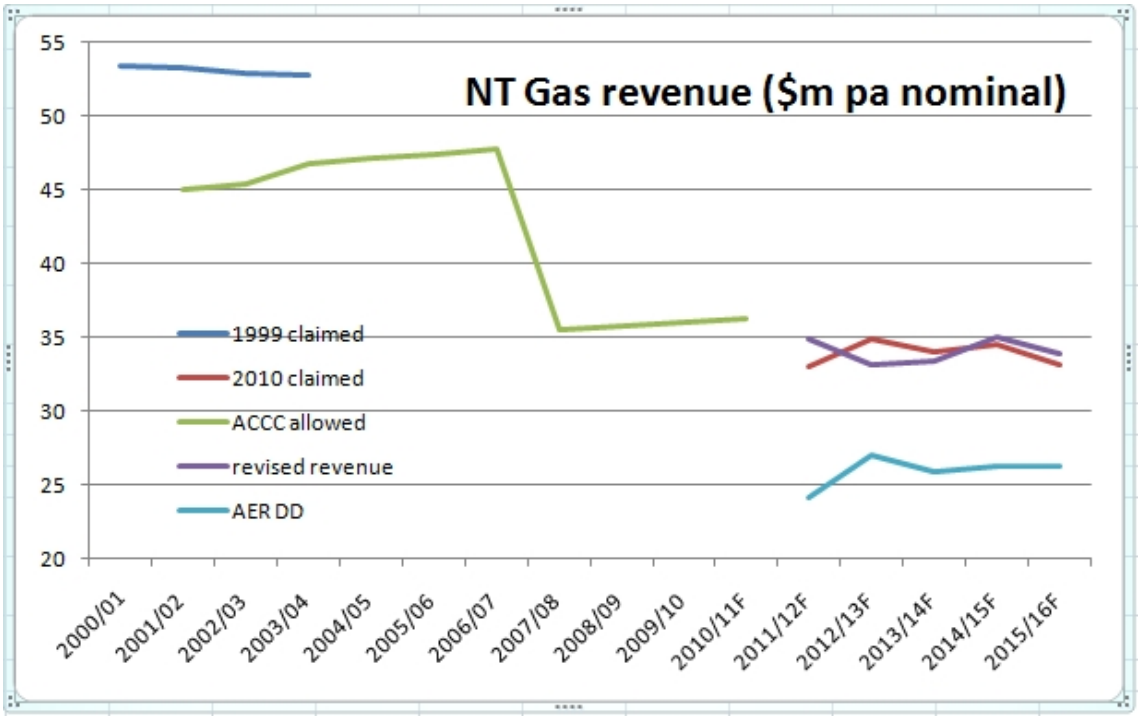
The AER must revisit this aspect in more detail.

1.3 An overview of the draft decision

As is becoming the norm in relation to energy infrastructure applications for a regulatory reset, the applicants are seeking significant increases in capex, opex and the WACC, well above the efficient levels. Unfortunately, the AER has not been up to the mark in that it is accepting the ambit claims made by NT Gas in its initial and revised applications and the NTMEU discusses these is each of the following sections.

Overall, NT Gas has sought to maintain its current revenue despite much of its assets having been properly depreciated as a result of the expectation the pipeline life would not exceed the life of the Amadeus Basin gas reserves.

The following chart shows the historic revenues allowed, previous and current forecasts of revenue and the AER draft decision on allowed revenue



Source: NT Gas applics, NT Gas revised applic, ACCC FD, AER DD

What this chart shows is that NT Gas aims to retain the same revenue that it enjoyed from the ACCC decision made in 2000, subject of course to the arrangement it has with PWC. Despite the AER draft decision highlighting that there were many aspects of the NT Gas application that did not comply with the Gas Rules, the revised application from NT Gas has been restructured to maintain the same revenue.

Effectively the NT Gas revised application has ignored those parts of the AER assessment that it did not like and retained these from its initial application.

Even worse, the NT Gas revised application highlights one massive variation – that its case for a large increase in capex from its initial application. This was despite the AER showing it was prepared to essentially accept the initial claim for capex.. The AER was aware of this increase when it prepared its draft decision but declined to address this 50% increase claimed by NT Gas on the basis that stakeholders had not had the opportunity to review the increases. This aspect is discussed in more depth in section 2.

In its assessment of opex, the AER raised well founded concerns with NT Gas claim for increased overheads. In its revised application, NT Gas has ignored the AER concerns and maintains that it requires a large step increase in overhead recovery despite such overheads never being required for the past decade. This issue is discussed in more depth in section 3

In section 5, we discuss the various elements of the development of the weighted average cost of capital. Again the revised application from NT Gas disregards the AER draft decision in many aspects.

Equally, the NTMEU is concerned that the AER intends to grant a debt risk premium well in excess of the costs incurred by NT Gas parent for the debt it has secured in the market. The NTMEU points out that the AER is in error in using a debt risk premium well in excess of the premium that NT Gas has actually secured some of its debt for. The NTMEU points out that the average cost of debt secured by NT Gas's parent is well below the cost of the debt secured in the bond market. The NTMEU points out that other consumer representatives have complained that the approach used by the AER to assess the debt risk premium are patently incorrect and the approach needs to be changed to reflect reality.

2. The Asset Base, past capex and future capex

There were a number of concerns the NTMEU had with regard to the NT Gas application. It would appear that the AER has addressed a number of these concerns (but not all) in its draft decision. However, the NTMEU has a number of residual concerns that need to be addressed.

2.1 Capital Contributions

In its submission PWC advised that it had provided NT Gas with a capital contribution in relation to the augmentation of the Katherine meter station. In its application, NT Gas has excluded this capital contribution from its conforming capex and has included the full amount of the capex into its roll forward model.

The AER has implied that it agrees with NT Gas that the PWC capital contribution was not in fact a capital contribution but additional revenue, and therefore NT Gas is correct in including the full amount of the capex into the asset base.

The NTMEU is quite concerned and puzzled at this approach. If additional funds were provided by a customer over and above its contractual requirements, then such additional funding cannot be assumed to be normal revenue and is, prima facie, a provision for a specific purpose. PWC advises that the specific purpose was to contribute to the capital cost for enhancing the metering facility at Katherine. If the AER has not been convinced by PWC, then it should detail its reasons why it is not convinced of the arguments provided by PWC. The AER should not simply rely on assertions by NT Gas alone.

To allow capital contributions to be rolled into the asset base (contrary to sound regulatory practice), allows the asset owner to get a return on funds it has not provided –

this is totally unacceptable and contrary to the Gas Rules and the Gas Law. In previous decisions, the AER and earlier the ACCC and state regulators have been very adamant that capital contributions should not be included in the asset base.

It would appear from the wording of the draft decision that the AER has made no attempt to get additional information from PWC as to whether any of the added revenue provided by PWC to NT Gas constituted a capital contribution, and has relied exclusively on NT Gas to provide it with additional information. The AER has an obligation to investigate this issue much more deeply than it has and to not so lightly dismiss the contention of PWC that it did indeed provide a capital contribution.

As the value of the Katherine meter augmentation is so large (stated by NT Gas to be initially $7.5m but now revised down to $1.1m) the AER should have, and still should, specifically request PWC to provide it with more information before making a final decision.

2.2 Forecast of 2010/11 actual capex

In its initial application (prepared during the first half of 2010/11 and submitted in December 2010) NT Gas advised that it would be investing some $19.2m in capital during 2010/11. That is, half way through the year, NT Gas was of the view that it would expend this amount.

Subsequent to a request from the AER to provide substantiation of the actual expenditure, timings and details of the costings, NT Gas then revised its view and now considers that it will only expend some $5.9m in the 2010/11 year, a reduction of 70%!

This change in view raises two important questions – NT Gas's ability to accurately forecast its capex requirements and the financial effect of the changes to consumers.

NT Gas attributes the impact of this gross under-run on capex for 2010/11 on an unseasonally wet "Wet Season" caused by a strong La Nina effect preventing much of the work planned from proceeding. Both NTMEU and PWC had raised concerns that the planned expenditure was a massive change from historic capex programs and therefore raised fears of NT Gas ability to execute the large amount of work planned.

These fears have now been realised and this raises a real doubt about NT Gas ability to both competently estimate the costs of the work and then to execute the planned work in the most efficient manner.

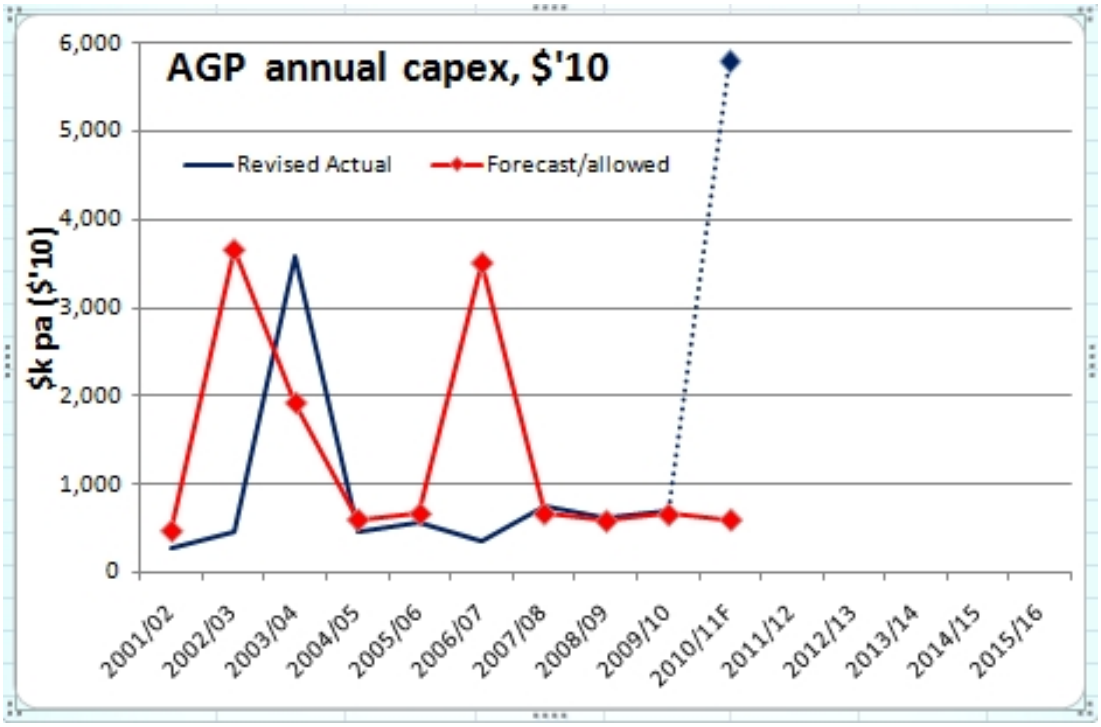
The AER therefore has to assess whether NT Gas has the ability to accurately forecast the cost of such large capital works and then to ensure the costs are efficient. The AER must not allow incorrect forecasts of capex as there is no ability under the rules to allow the AER to recover on behalf of consumers, the benefits of any under-run in capex. This aspect is more fully developed in section 2.4 below.

The Gas Law only allows the integration of efficient capex into the asset base, However, the Rules require the roll in of actual capex and as there is no provision for the AER to carry out an ex post assessment of the capex, it is probable then that inefficient capex can be allowed to be rolled into the asset base by default. As NT Gas has exhibited such a poor ability to forecast its capex utilisation, this raises real doubts about its ability to only incur efficient capex in the absence of regulatory rigour.

2.3 Historic capex

Other than the adjustment to the final year revised capex change from $19.2m to $5.9m to reflect likely actual capex, the AER has accepted the previous capex (including the PWC capital contribution) to be rolled into the NT Gas asset base.

Using these revised amounts, NT Gas has invested some $13.6m in the previous period of 10 years whereas the ACCC had approved $13.4m to be allowed. This seems to indicate that NT Gas invested what the ACCC expected. This expenditure profile is shown in the flowing chart



Source: NT Gas applics, NT Gas revised applic, ACCC FD, AER DD

On closer inspection, the NT Gas capex program was biased to invest later than was assumed by the ACCC and as a direct result, NT Gas accrued nearly $3m in additional windfall revenue (unintended by the ACCC decision) which, using the allowed WACC, delivered nearly 25% of the total value of the capex that was invested in the period. Despite this effective discounting of the amount of capex provided, the AER has accepted that consumers can pay full value for the capex incurred for the next 50-80 years.

This regulatory gaming by NT Gas was permitted because the ACCC took at face value the assertions of NT Gas that such investment was needed and at the times NT Gas asserted. That NT Gas was able to defer such large amounts of capex so readily at no risk to NT Gas reliability but to its considerable profit, is quite concerning and unacceptable to consumers who expect the regulator to ensure that a service provider provides the service at least cost.

That NT gas is permitted to make such large windfall profits (it effectively added nearly 10% to its revenue for no cost or risk) by manipulating its investment schedule is unreasonable and is not the intention of the Law or the Rules. It is clear that the regulatory approach taken by the ACCC was flawed if such outrageous profits on a regulated asset are permitted. It is therefore incumbent on the AER (on the basis of empirical evidence) to ensure that NT Gas is not permitted to inflate its capex as it did at the last reset, nor for the capex program to be structured in such a way that will allowed NT Gas to use deferment of capex to inflate its profitability in this way.

2.4 The major works for 2010/11 and 2011/12

The AER has basically accepted the contentions for capex inherent in the initial NT Gas application, which allowed for $19.2m in 2010/11 and $8.4m in 2011/12. The AER notes that NT Gas has provided revised data during the AER review of the initial application. This new data is now reflected in the revised application and shows a reduction in the 2010/11 capex (work in the current period) and transfers some $14m of this capex into the first year of the next period.

Instead of the major capex program for asset replacement occurring over just two years, the work is now spread over 3 years, and has increased in value from $27.7m to $41.7m, an increase of $14m or a 50% increase. It is concerning that in a matter of 3 months, because the AER requested better information to substantiate the claims made by NT

Gas, it has revised upwards its forecast costs for the work by this massive amount. This matter is addressed in more detail in section 2.5.

Capex for 2010/11 has been significantly reduced by some $14m (of which $6.4m is attributable to the Katherine meter upgrade which has not proceeded) yet this $14m plus an additional $12m has been rolled into the revised forecast capex. That a competent business (owned as it is by APA) can get its forecast capital so wrong by nearly 50% beggar's belief. Any business operating in a competitive environment that got its capital needs forecast so wrong, would be in serious trouble with its owners and bankers!

2.5 Future capex

The AER accepted the forecast capex provided in the application but that has been revised by NT Gas to nearly double over the period from its initial forecast. As the AER notes this massive change does not indicate that NT Gas has a proper understanding of its own needs and such inability to forecast accurately should not be a cost to users. Already the current capex has significantly under-run its forecasts and in doing so has provided NT Gas with an unearned windfall of $3m by rescheduling capex.

NT Gas had, in its initial application, forecast an over-run of capex. The revised application shows that capex for the current period is about balanced, even though NT Gas had accrued a $3m benefit by scheduling capex later than the ACCC had allowed for. The forecast capex over-run for the current period of $14m has been moved to the next period.

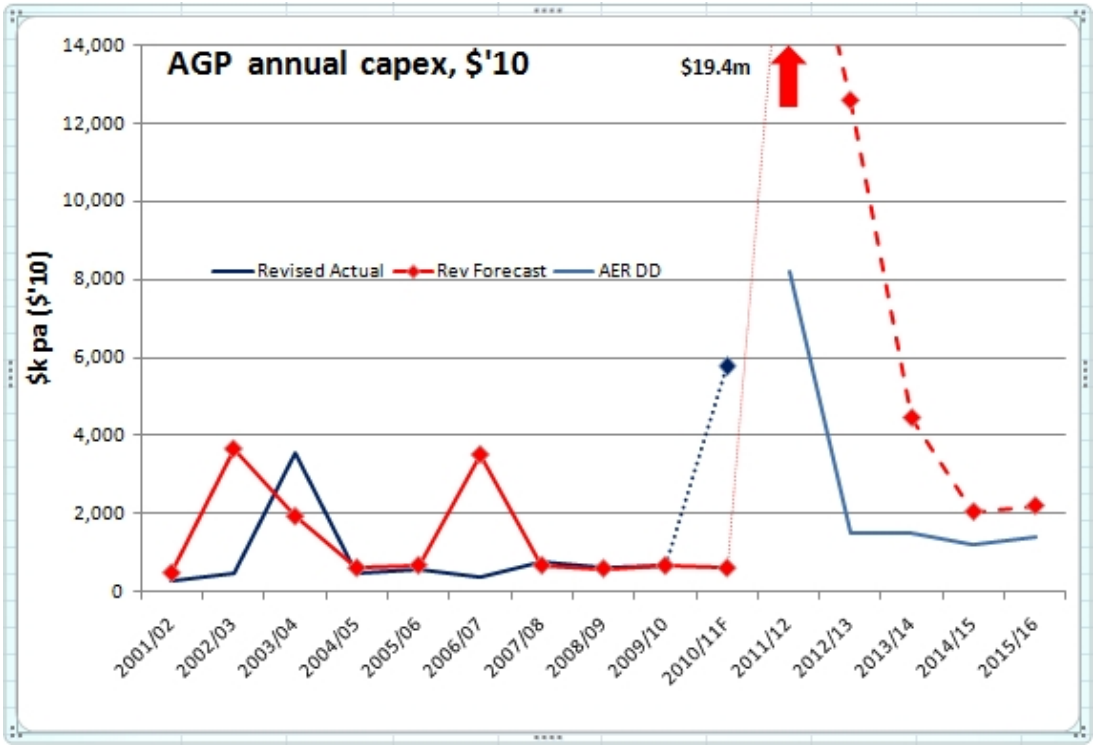
Even accepting the AER draft decision to allow the full cost of the refurbishment that was included in the initial application, underlying capex in the next period is forecast to be nearly three times the underlying capex of the current period. This raises the issue

that the AER is required by the Gas Law to implement a capex incentive program because the Gas Law states in section 24(3) that:

> "A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—
>
> (a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
>
> (b) the efficient provision of pipeline services; and
>
> (c) the efficient use of the pipeline."

The purpose of this requirement is that the incentive program will provide economic signals to the service provider to ensure that its capex is indeed efficient. One way of implementing such a capex program incentive is to use the historic capex as a benchmark for future capex, adjusting for specific issues as are required. Unfortunately, the AER has totally ignored the historic capex as a guide to ensure future capex is efficient.

Overall, excluding the relatively massive capex planned for 2010/11 and 2011/12, the forecast underlying capex for the next period, is a significant rise from the underlying capex actually incurred for the past 10 years. This is shown in the following figure.



Source: NT Gas revised applic, ACCC FD, AER DD

The underlying capex in the current period, excluding the refurbishment projects, averaged some $600,000 pa (in constant value). The underlying capex accepted by the AER in the draft decision is $1.4m pa, more than twice the current underlying capex. The revised application from NT Gas has an underlying capex of some $2m pa, over three times the current rate.

The AER in its final decision must ensure that it uses the historic capex as a guide as to what is appropriate, along the lines that it used in relation to non-system capex, where it clearly used historic capex to assess the reasonableness of the future capex. On page 43 the AER stated:

> "This [future capex] compares with a similar average expenditure of $0.2 million per annum in the earlier access arrangement period. Given the level of

expenditure is expected to remain at around the same level, the AER accepts the proposed forecast complies with r. 79(2)(c) of the NGR."

However, NT Gas has dramatically increased its capex in its revised application. The following table summarises the initial application capex proposals and the revised application.

Projects	Initial forecast			Updated forecast							Difference between initial and revised	% increase in cost
$'000 (2009/10), with labour escalation	2010/11	2011/12	Total	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Total		
Katherine Meter Station Upgrade	7,487		7,487	1,096	0	0	0	0	0	1,096	-6,391	-85%
Channel Island Meter Station Upgrade	214		214	304	323	0	0	0	0	627	413	193%
Palm Valley slamshut and filter	160	107	267	221	1,773	0	0	0	0	1,994	1,727	647%
Channel Island Bridge project	3,262	3,223	6,485	1,303	2,376	4,420	0	0	0	8,099	1,614	25%
Ultrasonic meter upgrade – Channel Island				29	526	0	0	0	0	555	555	
Darwin City Gate oil vessel				39	90	0	0	0	0	129	129	
Darwin City Gate Moisture Analyser				97	0	0	0	0	0	97	97	
Darwin City Gate C9 GC				138	0	0	0	0	0	138	138	
Hazardous Areas Assessment and equipment replacement	596	368	964	279	444	314	38	0	0	1,075	111	12%
Heat Shrink Sleeve Replacement	503		503	387	104	0	0	0	0	491	-12	-2%
Upgrade Elliott heaters	428		428	0	0	0	0	0	0	0	-428	-100%
Bidirectional pigging	267	161	428	221	2,123	1,214	0	0	0	3,558	3,130	731%
Cathodic Protection – Stage 2	1,960	1,684	3,644	1,011	2,588	632	0	0	0	4,231	587	16%
Anchor block repairs				0	1,927	816	819	823	827	5,212	5,212	
Below Ground Station Pipework Recoating	2,888	1,934	4,822	0	6,109	3,537	1,912	0	0	11,558	6,736	140%
Total	17,765	7,477	25,242	5,126	**18,382**	**10,933**	**2,769**	**823**	**827**	38,860	13,618	54%

Source: NT Gas applic, NT Gas revised applic, NT revised capex

This shows that NT Gas has added a number of projects of which the most expensive is the repair of anchor blocks totalling some $5.2m. It also shows that some $6.8m of projects have been deleted, although it must be noted that NT Gas had initially requested $27.7m in capex so there were additional projects of some $2.5m that had not been detailed in the initial application.

Of the projects that were detailed in the initial application those remaining have increased in value by $14m from an initial cost estimate of $17.8m, a massive 78% increase in cost over a few short months. In the same time period, an additional $6.1m

of new projects has been added where NT Gas had initially sought $2.5m, increasing other capex by 250%.

That such large changes can occur in such short periods of time, raises three fundamental questions:

1. Can any reliance be put on the NT Gas ability to manage and forecast accurate costs?

2. Based on the success it has had in "gaming" the capex program in the current period, is it intending to replicate this by an even larger order of magnitude in the next period, again with AER approval?

3. What additional premiums has NT Gas added to its capital forecasts?

NT Gas has done what a number of other regulated entities have done in recent resets. Subsequent to the submission or initial applications, the regulated entities have made significant increases in forecasts costs. By submitting this information late in the review period when the AER is under time pressures to deliver its final decisions, the regulated entities have created an environment where the AER has insufficient time to review in detail the inflated revised claims. This is becoming the new regulatory game being implemented. The outcome can only lead to consumers paying more than they would be if the regulator is provided with detailed and accurate information in the initial application.

But this issue raises an even deeper concern. The fact that the AER will make a decision based on the revised application without seeking stakeholder input as to the reasonableness of the revised application is wrong. Stakeholders should be permitted to see what the AER proposes in regard to the revised application, especially as the revised application is so much greater than the initial application. To prevent stakeholders from

seeing what the AER proposes in regard to the revised capex without having the right of review, is a denial of natural justice.

Overall, the revised forecast for capex (including the adjustment of the forecast for 2010/11) needs a very close review. It would appear that NT Gas has under-run capex allowances in the past. As the revised application has an average yearly spend of $8.1m pa over 5 years in capex compared the average spend of $1.4m pa over 10 years, raises real concerns that the NT Gas revised application is both grossly overstated and implies that NT Gas has deliberately underspent in the past so that it could get a bonus and then used the opportunity of a reset to get users to pay for a massive capex program that should have been in place for many years in the past.

2.6 Project management fees

The NTMEU notes that the AER has determined that project management fees [which are marked c-in-c] should be added to the capex allowances. The NTMEU agrees that this is appropriate as these fees were not required in the historic approach to capex and therefore capex allowances should not be included.

However, in light of the massive increases in capex claimed in the revised application this issue becomes of even greater concern. The NTMEU agrees with the AER that project management fees are an inappropriate impost to be included in the allowed capex program and reflect an attempt by NT Gas to transfer more profit to its owner.

2.7 Escalation of costs

The AER has addressed the escalation of costs in labour claimed by NT Gas. The NTMEU is concerned that the AER persists in trying to include in forecast opex and capex costs, future real increases in labour and materials, as the forecasts made by the AER and applicants for a reset have been consistently overstated and resulted in

consumers paying more than the actual costs the businesses have incurred. The NTMEU notes its affiliates have raised this issue with the AER in the past and proposed solutions which the AER has decided not to adopt. It seems unreasonable that consumers have to accept the risks associated with future movements of costs when there is a better solution available.

However, the NTMEU notes that the only cost escalators that have been claimed (and therefore assessed by the AER) relate to labour. What is gratifying is that the AER has finally determined that future labour costs should include for the impact of increased productivity and the AER has required the use of productivity adjusted labour cost movements.

The NT Gas revised application devotes considerable effort in considering that the AER approach to labour cost escalation is flawed. It is intriguing that NT Gas so vigorously attacks the AER for following its past regulatory practice in regard to cost escalators, but equally attacks the AER in other elements of its draft decision, for not following past regulatory practice.

Specifically, NT Gas argues that its approach based on past movements of AWOTE assessments and then projected into the future, is superior to the Access Economics assessment of labour cost movements based on its LPI. The fact that the AWOTE assessment provides a better outcome for NT Gas is not discussed in the assessment of the relative merits of the two approaches, nor is the fact that the NT Gas approach does not take into consideration any assessment of future exogenous impacts on the NT economy.

NT Gas derides Access Economics for using its "judgement" as it develops it's views as if the NT Gas approach was not based on judgements of its own – the NTMEU considers that one of the major failings of trying to second guess the future movements in labour is that all such assessments are based on judgements.

NT Gas then asserts that a productivity adjusted labour rate should not be used because previous AER decisions (until recently) had not used the productivity adjustments. Other than for the obvious reason that by not using a productivity adjustment gives a higher rate of labour cost escalation, the NTMEU queries why a productivity adjustment should not be used. There is no doubt that as labour costs consistently increase at a greater rate in nominal terms than does general inflation, there is inherently a national improvement in productivity. It is incomprehensible that consumers should assume that NT Gas will not get the benefit of the national productivity increases that all other labour employers get. As to the NT Gas assertion that the AER has not (until recently) incorporated productivity into labour cost escalators denies the fact that all state based regulators did incorporate productivity improvements into their decisions[1].

NT Gas goes on to state that use of productivity adjustments is contrary to the revenue and pricing principles which require efficient costs to be used for regulatory decisions. The NTMEU would argue that only by incorporating productivity adjusted escalators that the AER can be assured that only efficient costs are allowed. By allowing an unadjusted labour escalator does not recognise that labour is consistently improving its productivity.

NT Gas selectively uses excerpts from various sources to highlight that the Territory is about to be beset by significant wage claims. This is then used to support their view that using past AWOTE figures projected forward is a better indicator of future labour costs.

What is absent from the NT Gas application, is the impact of materials cost movements. The NTMEU is intrigued as to why. The conclusion that the NTMEU has come to is that NT Gas has determined that they will benefit better from not having cost adjustments for materials than if these were included. The NTMEU can see that this might be the case as many of the materials NT Gas will be using in its large capex

[1] It is an interesting sidelight that NT Gas only received CPI adjustments to its revenue under the ACCC decision that is still current!

program are imported and therefore NT Gas will benefit from the high $A compared to most currencies.

Overall, NT Gas approach to cost escalators is blatantly self serving in the extreme and makes little attempt to recognise that the National Gas Objective requires promotion of efficient operation over the long term, in terms of price (one of the four elements of price, reliability, safety and security) in the supply of gas. The fact that NT Gas consistently under-run the ACCC allowed opex for the past decade (with just CPI adjustments) has been lost on NT Gas as it seeks to maximise the revenue it can get from a pipeline that is already well depreciated.

2.8 Summary

The NTMEU sees that NT Gas has achieved a significant benefit from under-running its capex for the last decade, a windfall benefit which resulted in nearly 25% of its actual capex being returned in the form of savings. As the intention of allowing the benefit of any under-run of capex remaining with the business, was to incentivise capex to reflect efficient levels, the expectation is that the future capex would reflect past actual usage.

The AER has determined that this is not to be the case and despite this incentive program, it allowed in its draft decision for a significant increase in capex for the next five years.

Emboldened by the AER agreeing to this large step increase, NT Gas has further increased its capex in its revised application to even higher amounts than it claimed mere months before. The NTMEU is concerned about this on a number of fronts:

1. That NT Gas forecasts cannot be believed

2. NT Gas is clearly gaming the system and is preventing stakeholders from seeing what the AER considers is reasonable now the higher costs have been submitted

3. The new forecasts include for costs that are not reasonable and should be excluded

The AER must step up to the mark in the light of such transparent gaming.

3. Operating Expense (opex)

Throughout this section all costs are in $2010 unless otherwise indicated.

In the 2001 revenue reset review, the ACCC accepted the opex forecast by NT Gas as efficient. In its decision in 2001, the ACCC benchmarked the opex costs and provided a view that the total opex was efficient and it provided its reasons for this decision.

Because of this, in the following analyses, the amount of opex forecast by NT Gas is the same as the amount of opex the ACCC allowed in the reset. Rather than show two identical figures (forecast and allowed), the following work just shows the amounts forecast by NT Gas during the 2001 reset review.

Because NT Gas was operating under an incentive program for its opex, the import of the Gas Rules (and the Gas Law) is that that NT Gas was incentivised to drive its opex to an efficient level. Unfortunately, because the AER has made it clear to all network owners, that they will use the second last year of a regulatory period as the base year for all opex assessments for the ensuing regulatory period, the AER has provided an incentive on the business to maximise opex in this year.

Thus the AER has assumed that 2009/10 opex is inherently efficient even though its cost base is higher than the average of the earlier seven years. Because the "base year" opex is less than the prior and later years, the AER states that this provides clear evidence that the base year is efficient. Unfortunately, the years either side of the base year are not effective comparators, especially the last year, as that opex is based on a forecast and is not actual. The opex in 2008/09 included for a "pigging" exercise and when the opex costs of the pigging are excluded the 2008/09 total opex is much the same as for 2009/10, a fact that the AER had not recognised.

It is indeed unfortunate that the AER rigour in assessing the value for the base year has been lacking.

3.1 Overview of past opex

Over the past decade, NT Gas consistently under-run this allowance and by doing so was able to earn a significant reward of some $4.3m but the timing of the under-runs increased (being incurred in the early years of the access arrangement) and the value of this under-run effectively increased by another $3m when account is made of the interest earned on each under-run and its cumulative effect. Effectively NT Gas was able to achieve a total benefit from its under-run on opex by more than 8% or nearly one full year of opex.

In that time NT Gas incurred three amounts of "unusual" opex in years 2003/04, 2006/07 and 2008/09. In these three years NT Gas advises (page 119 of its initial application) it undertook pigging activities which added $3.4m to the opex, or $1.1m on average for each of the three years. Pigging in 2003/04 cost some $1.8m and the length of the pipeline involved was between one quarter and one third of the total pipeline length but in 2008/09 it spent $0.7m for pigging the Mereenie spur line and Palm Valley to Mataranka which was for nearly three quarters of the total AGP pipeline length.

Excluding the pigging operations, NT Gas increased its opex for the last three years significantly above the previous average opex spend. The average annual underlying opex for the first 7 years was $8.3m, but for the last three years (including the base year) it was $9.5m, including the base year amount of $8.7m. This makes the base year's opex being a premium of 5% above the average of the early years. The AER has used this inflated base year opex as the basis for assessing step changes resulting in an inherent overstatement of future opex.

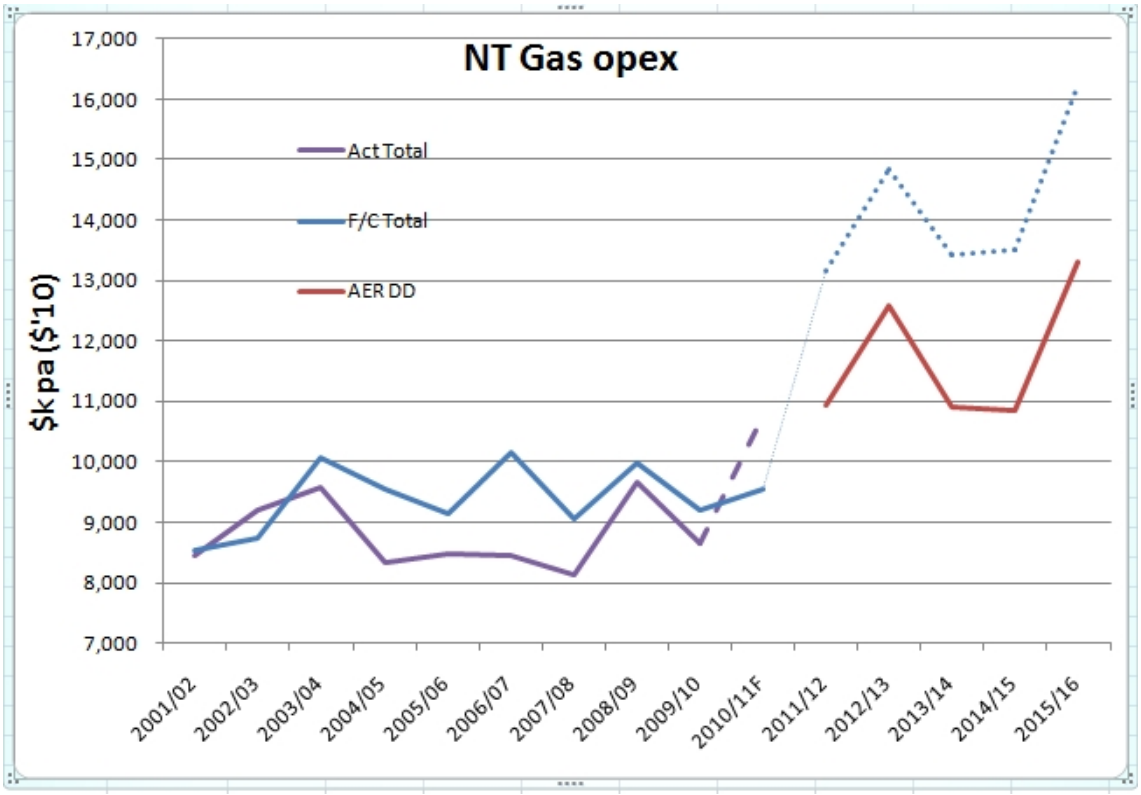
Implicit in its actual performance NT Gas not only earned an unexpected profit from its opex, but by doing so it set a benchmark performance for itself of a total annual opex need of $8.7m, inclusive of significant pigging operations. If pigging is excluded (as applies in the base year), the underlying long term opex needs of the AGP is demonstrably $8.3m pa whereas the AER has used $8.7m as the notional efficient opex.

3.2 Forecast opex

Future opex should reflect past opex adjusted for inflation, step changes and growth. Benchmark performance should not be set on one year alone and the AER should have recognised that seven years of consistent opex would provide a better reflection of benchmark performance than the one year when NT Gas would have an expectation that the AER would use this year for its basis.

To inflate opex for setting a benchmark year performance is easy. The approach NT Gas used by inflating opex in the years before and after the benchmark year implied that there were elements in the benchmark year opex that needed to be added when in fact the benchmark year opex was inflated above the long term average opex. This is in contrast to the AER contention that base year opex was consistent with earlier year's opex. After adjustments NT Gas base year costs is similar to the previous year and some $1m pa more than the longer term opex costs.

Overall, NT Gas forecast that its opex will increase from an historic average of some $9m pa to a new average cost of $14.2m pa, an increase of nearly 60%. In its revised application it maintains that this is an appropriate level despite the AER draft decision which considers that $11.7m is an amount that they consider is more representative of efficient costs. Both the NT gas claim and the AER draft decision show significant increases above the demonstrated actual performance of the past decade. The relativities are shown in the following figure.



Source: NT Gas applic, ACCC FD, AER DD

Because of the magnitude of the differentials between current and future claims and assessments, it is important to examine the three basic elements leading to the massive increase in costs requested by NT Gas and allowed in the AER draft decision. The following graph breaks down the forecast opex into operating and maintenance, overheads and sales and marketing.

A break down into the three main elements shows that there is a large step increase from the long term average in each of the three elements – a 28% increase in O&M, a 225% increase in overheads and a 100% increase in sales and marketing.

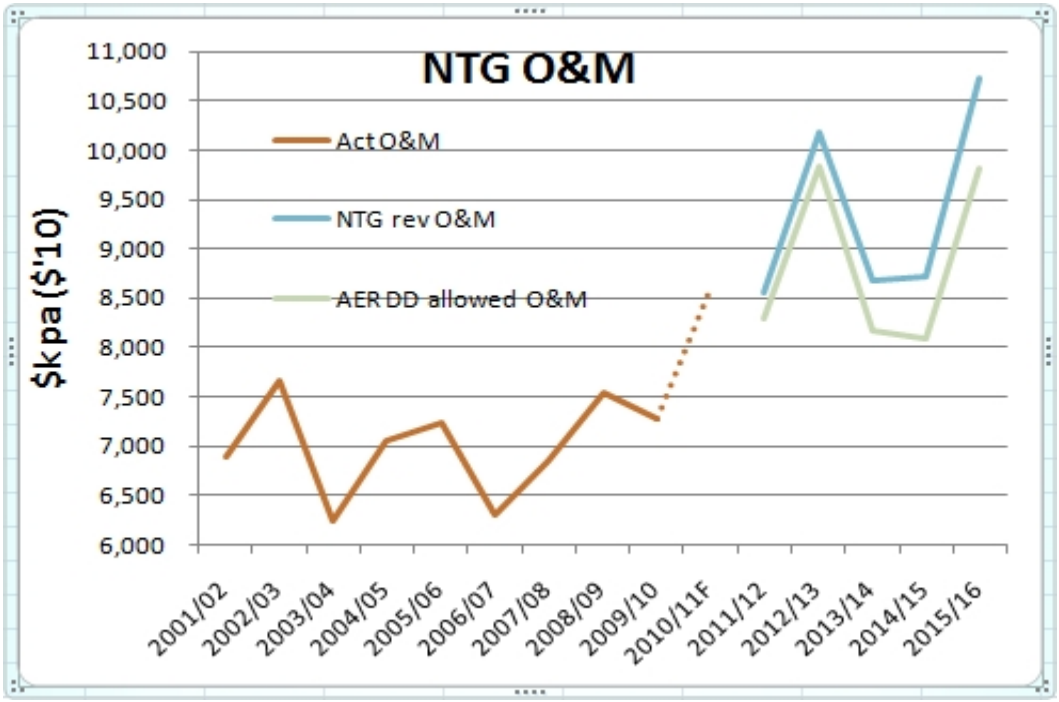
In addition, there is a step increase from the long term average in the forecasts for 2010/11 for O&M of 17% and overheads of 40% which combined lead to 2010/11 forecasts showing an increase from the long term average opex of 20% - ie that 2010/11 opex is 20% higher than the long term average opex for the past decade.

The NTMEU considers that these increases are not reasonable or sustainable, and the AER needs to address them in detail.

3.2.1 Operating and maintenance (O&M)

In its revised application, NT Gas essentially has not varied its O&M costs that it considered should apply in the next period. It has accepted the AER draft decision where the AER has determined a step change is warranted for the O&M allowance, but maintained its views that where the AER disagreed, these step changes are still legitimate.

The AER has essentially accepted the NT Gas O&M forecast for the next period, subject to some minor deductions. The following chart shows the claims and the AER allowances;



Source: NT Gas applics, ACCC FD, AER DD

This chart highlights the main concern the NTMEU has with the AER draft decision.

The AER has decided that it will not make public the costs associated with the step changes to opex costs (including O&M costs) claimed by NT Gas and this is demonstrated in AER figure 7.2. Despite not divulging these adjustments, the AER has removed a total of $470k from the NT Gas application for step changes to O&M. The AER provides its reasons for requiring some adjustments to the step changes claimed, but not the amounts related to each. This lack of information makes it impossible for stakeholders to make any comment on the level of O&M for the next period as the start point has been hidden under the guise of confidentiality.

The NTMEU therefore cannot comment about the costs of the underlying step change increase as this information is marked [c-in-c] and is not divulged by either NT Gas or AER. However the NTMEU can deduce that the AER has allowed some $1m pa in O&M cost adjustments to the 2009/10 base year O&M cost when subtracting the actual 2009/10 O&M data from the NT Gas claim for 2011/12 less the AER adjustment for O&M. That the AER has allowed such a large amount does not reflect the long term historical O&M for which the actual O&M averages at some $7.4m, a little above the actual O&M for 2009/10.

The AER provides no explanation or discussion as to why they have reached this conclusion, other than they consider it to be reasonable. Such concealment of such a large figure in favour of the business is not what is intended in best practice regulatory assessments.

The NTMEU can, however, comment on the pigging activities which are claimed as a step change. Implicit in AER table 7.4, there is an underlying opex step change for each year of some $200k pa, which means that there will be

intelligent pigging activities in 2012/13 of about $1.6m and in 2015/16 of about $1.9m.

Pigging activities in the current period amounted to an average $1.1m pa for each of the three years in which they were undertaken. NT Gas initial application implies that these pigging activities would have covered almost all of the AGP length. Pigging costs appear to be some $3.5m or an average of $1.8m pa for each of the two years they are claimed. This is nearly double the cost that NT Gas actually incurred in the current period. The AER has accepted these costs without any query or explanation. It does not explain why a near doubling of pigging costs is acceptable.

Neither the AER nor NT Gas has addressed the issue that with the significant amount of capex that is to be invested, there should be a reduction in O&M costs. With the investment of replacement assets, there should be a reduction in the number of inspections that NT Gas made during the current period to ensure that the assets are being maintained in an acceptable state.

The major adjustment made to the O&M (other than the acceptance of about $1m for base year adjustments for O&M) the AER has discounted the claim for increased labour escalation. The NTMEU agrees with the AER and its reasons are more detailed in section 2.7 above.

However, the revised application from NT Gas explains that NT Gas does not accept the AER draft decision explanations for what the AER considers to be an acceptable adjustment for future movements in labour costs. The NTMEU agrees that the AER approach is more robust than that proposed by NT Gas and is consistent with other regulatory decisions by the AER.

3.2.2 Overheads

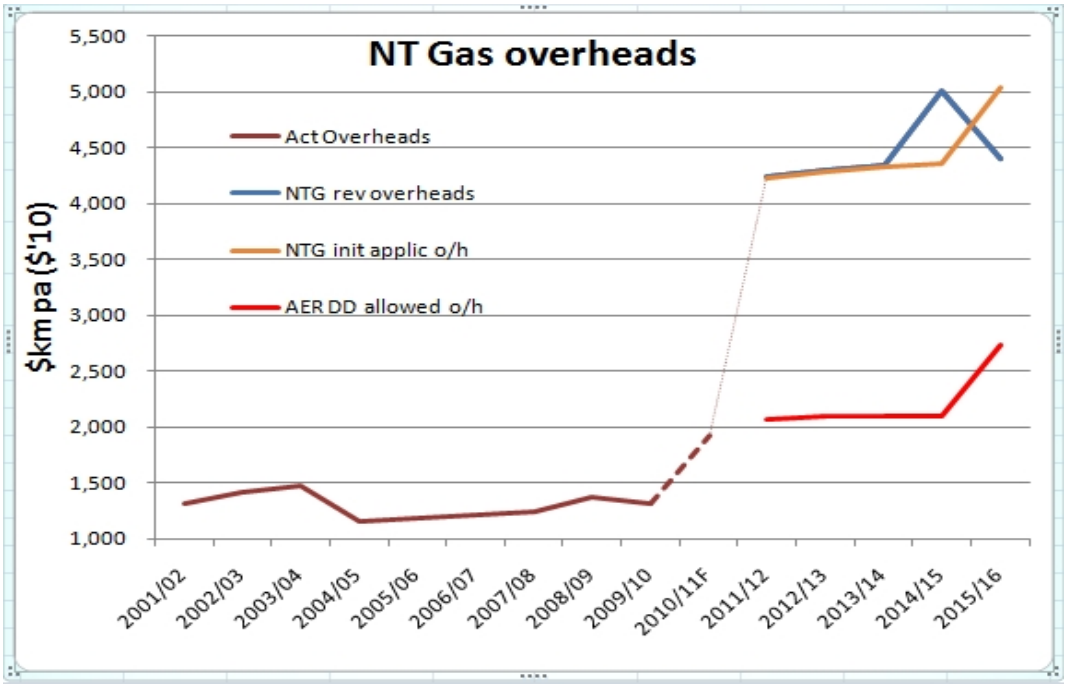
In its revised application, NT Gas maintains its view that it is entitled to a massive increase in overhead allowance despite the AER draft decision views.

The AER assessment of overheads reduces the amount claimed by NT Gas but it continues to allow a significant step increase in overhead allowance and this raises considerable concern as to why the AER has accepted a large increase in overhead costs.

The following chart shows two significant elements:

- That NT Gas has not changed its overheads as a result of the AER draft decision, only that it has moved the regulatory costs to an earlier year

- The AER draft decision still allows for a significant increase in NT Gas overheads compared to the bulk of the previous period.



Source: NT Gas applics, ACCC FD, AER DD

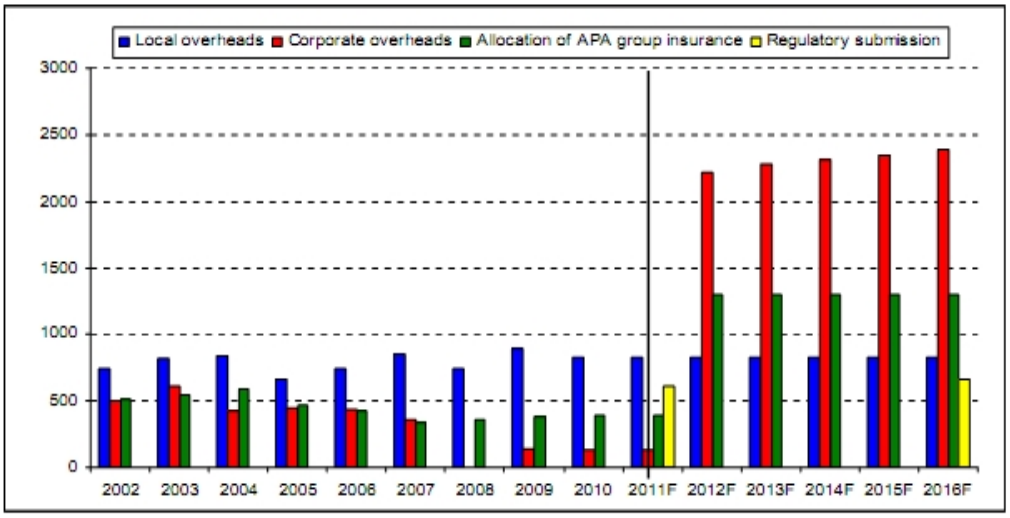
Implicitly the AER seems to have accepted that the base year overheads excluded some $700k of overheads that were not incurred in the base year and as a result have allowed this increase in overheads. Yet examination of earlier years' overheads shows that the average overhead prior to the base year was $1.3m supporting a view that the actual overhead in 2009/10 of $1.3m was indeed reflective of the overheads over the long term.

As with the NTMEU observation regarding the AER decision on step changes to O&M from the base year to the new period, the NTMEU has been denied any ability to understand the AER reasonings behind its decision to allow a $700k increase in overhead allocation.

Between the O&M and overhead step increases, the AER has accepted that the base year actual opex was understated by some $1.7m but the AER provides no explanation for this at all.

In its draft decision, the AER discounted the overheads by rejecting the increase in insurance costs and removed some $900k pa of corporate overhead. It provided a chart showing the claims by NT Gas for its overhead build up and how this relates to how this break down applied in previous years.

Figure 7.4: NT Gas actual overhead costs versus forecast overhead costs ($'000, 2010–11)



Source: NT Gas, *Email response AER.NTGAS.03–14,* 31 January 2011, p. 7; NT Gas, *Access arrangement submission,* December 2010, p. 133.

Source: AER DD page 118

This chart shows that the claim for local overheads shows constancy with local overheads incurred in previous years as does it show the consistency in regulatory costs. However, the AER has removed entirely the claim of $1293k pa for insurance costs but only $900-1000k from the corporate overheads.

The purpose of incentive regulation is to provide a regulated firm to operate to achieve its most efficient level of operation. It is by this method that benchmark performance levels of efficiency are achieved. Historical performance is seen as the starting point for assessing efficiency in terms of the specific firm and this is adjusted by recognising exogenous step changes in the operating environment. Overhead recovery is no different to other elements of opex and therefore should be treated in the same way as O&M costs.

The NTMEU considers that there is a need to incorporate some insurance costs and the AER should have made some allowance for this in its draft decision. The

AER had observed in its draft decision that NT Gas had not provided any substantiation for the insurance costs claimed and therefore had not allowed for any costs. However, the AER is aware that NT Gas had incurred insurance costs in the base year of some $400k and should have allowed this amount to be included in its allowance for the next period opex.

NT Gas has provided another confidential submission in its revised application and states that the insurance assessment is based on the same approach allowed by the AER in its decision on the APT Allgas decision. The NTMEU does not consider that this approach used by NT Gas is appropriate as NT Gas has previously been provided with insurance cover for its AGP assets. The NT Gas approach should be the same as it used in 2009/10 when it had cover for the assets in question. The NTMEU also does not consider that a broker assessment is sufficient justification to substantiate an increase in insurance from $400k to $1.3m pa as this cost rise represents a 300% increase. The AER is correct in seeking better particulars but erred in not allowing insurance costs that were already being regularly incurred.

The AER has made a major error in allowing any corporate overheads above those incurred in the base year. Over the past 10 years, NT Gas has incurred corporate overheads of an average of $300k pa, although the amount in the base year was less than this. At most the AER should have allowed corporate overheads based on the average of the past decade. It certainly should not have allowed corporate overheads of some $1.3m.

The reason that NTMEU is of this view is that a change in a corporate accounting approach does not warrant adjustment as a step change. A step change should only be allowed when an exogenous change occurs which impacts the costs a regulated business will incur. NT Gas has demonstrated that its efficient costs for its overheads are some $1.3m pa, of which $400k is for

insurance, $800k pa is for local overheads and the balance for corporate overheads. This is the same as the actual overheads incurred in the base year.

NT Gas has advised that there has been a corporate policy change in relation to corporate overhead recovery. Generally, a business changes from incurring costs at the local level to transfer these to the corporate level in order to reduce costs, not to increase them.

In this regard, it is pertinent to note that NT Gas corporate services are provided by APA group, which includes both regulated and unregulated assets. Thus, there is an incentive on APA to allocate more corporate costs to regulated subsidiaries (and away from unregulated subsidiaries) if it can do so, and get the regulator to accept such costs.

The fact that this change in corporate overhead recovery coincides with a regulatory reset review is suspicious. To accept that for 10 years APA would have applied one level of overhead recovery that was deemed acceptable to it yet on the cusp of a regulatory review, it changes its practices for the entire group and allocates much higher corporate overheads to a regulated entity is just circumstance, requires a large jump in credulity.

In its revised application, NT Gas provides an explanation for the increase in corporate overhead recovery. It provides a listing of the functions that corporate provides the firm, but fails to identify whether there has been an increase in scope. If this was the case then there would be a similar reduction in local overhead costs that applied, but this is not the case.

NT Gas then explains that the corporate overhead recovery assessments made in 1999 are no longer applicable as there has been an increase in responsibilities and costs to reflect these changed circumstances. That this has occurred is not

questioned, but the way the costs were recovered in the past seems to deny this. For example in 2001/02, corporate cost recovery was some $500k pa but by 2009/10 this had reduced to less than $200k and in 2008 there was no corporate overhead recovery at all. NT Gas goes on to state that its current estimate is the best estimate possible but fails to explain why corporate overhead costs have increased by 400% between this regulatory period and the next.

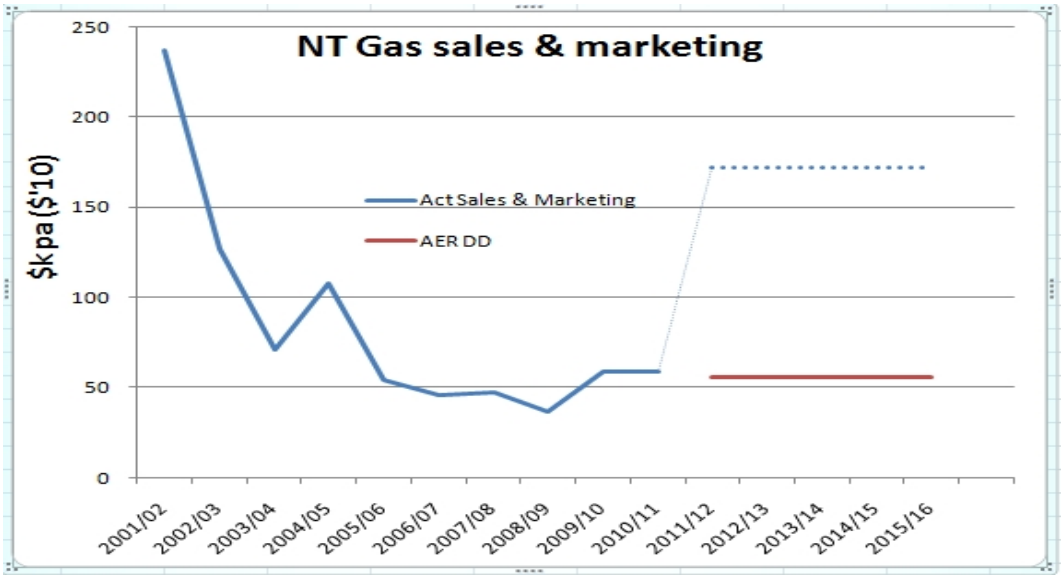
The NTMEU considers that the AER should have, in its draft decision, allowed the continuation of the local overhead, corporate overhead and insurance costs at the rate NT Gas had been incurring these costs. It should not have excluded all of the allowance for insurance as insurance was and still is required. At the same time, the AER should have denied all of the increase in corporate overhead.

The AER draft decision adds some $800k pa (or $4m over the five years) to the overhead recovery for no change in activity by NT Gas but at the same time denies any allowance for insurance. There is no doubt that NT Gas does need some allowance for insurance, so the AER draft decision will have to increase for this. If the AER allows the current cost of $400k pa for insurance and does not adjust the corporate overhead, then the resultant overhead cost will reflect an overall increase of more than $1m pa.

Such an increase would be non reflective of reasonable incentive regulatory outcomes.

3.2.3 Sales and Marketing (S&M)

Although the amounts included for sales and marketing are quite modest, they still demonstrate that NT Gas was seeking an increase of more than 100% above current actual costs. The AER draft decision indicates that it considers that an efficient level of S&M is that currently used as the following figure shows.



Source: NT Gas applic, ACCC FD, AER DD

The NTMEU agrees with the AER assessment on sales and marketing. The need for sales and marketing is really limited as any aspiring gas users would be aware that it has to contact NT Gas for gas transport as there is no other facility available in the Territory for such purposes. The NTMEU considers that at most the sales and marketing activity would be limited to providing aspiring new entrants to seek information about spare capacity on the AGP assets and for NT Gas to provide this and the potential costs for using the activity. The amount the AER has determined as efficient would more than cover these costs.

3.3 Summary of opex

Based on trends, it would be expected that future opex would be some $9m in 2011/12 rising to $10m by the end of the period. The AER has allowed opex which is some $2m pa in excess of this benchmark rate. However, the AER has erred in not allowing the current costs for insurance of the NT Gas assets which if added would increase the AER draft decision allowance to be some $2.5m pa above the current base year costs – this is some 25% increase on the base year costs, even though the base year costs are generally reflective of opex that has applied for most of the past decade.

Of this $2m pa the AER has allowed as an increase, about half is attributable to an O&M adjustment to the base year O&M costs. The AER has not provided any details of what this cost comprises or where is comes from, and neither has NT Gas, claiming confidentiality. This cost adds about 10% to the opex but no explanation is provided.

The other major element of the opex rise is attributable to AER accepting that corporate overheads should increase by a factor of 200%, but again fails to explain why it has settled on this figure.

The lack of clarity by the AER of where such large allowances above the benchmark performance levels is of great concern, as is the AER decision not to allow any costs for insurance.

From a consumer viewpoint, the AER assessment of allowable opex for AGP shows a severe lack of appreciation of stakeholder needs to be assured that the AER has addressed allowable costs in an appropriate manner.

4. Forecast gas demand and tariffs

The AER has accepted the NT Gas forecasts for expected usage of the AGP but in doing so has discounted the fact future users other than PWC might seek access. The NT MEU is aware that users other than PWC have had gas transported in the AGP and with the potential changes in the structure for the supply of electricity forecast resulting from changes in the electricity supply market (potentially breaking the monopoly hold PWC has in controlling electricity supply in the Territory) new users of the gas transportation system may well emerge.

Of particular note, use of gas south of Ban Ban Springs is a very likely scenario as there will be capacity in southerly flows on the AGP which is not contracted to PWC.

The NTMEU considers that the AER view that PWC will be the only user of AGP needs to be reassessed. The AER needs to be cognisant of the potential for NT Gas to over-recover its allowed revenue by under-allowing the amount of gas that might be transported in various sections, particularly as there is now significant change to the electricity supply structure in the Territory.

With this market change it is probable that unless the AER sets reference tariffs for likely transportation options, there is the potential for NT Gas to significantly enhance its revenue for using a regulated asset. This will clearly be a retrograde step, as it will undermine NT Government policy of moving to a more competitive electricity market, and thereby enhancing downstream investments and employment.

5. Cost of capital and revenue

5.1 Cost of capital

The weighted average cost of capital (WACC) used by the AER must comply with Gas Rule 87 which is:

> **"87 Rate of return**
>
> (1) The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.
>
> (2) In determining a rate of return on capital:
>
> (a) it will be assumed that the service provider:
>
> (i) meets benchmark levels of efficiency; and
>
> (ii) uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and
>
> (b) a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used."

The National Gas Law (section 24 subsection (5)) states that the service provider is entitled to have a reference tariff which:

> "... should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates."

It is from this principle that the Rule 87 is derived. The AER has provided a Statement of Regulatory Intent (SORI) which, when applied, is supposed to provide an outcome which meets the requirements of the Law and the Rules. If the SORI is in conflict with the Law and the Rules, then the SORI must be the approach that is changed. The SORI does not over-ride the Law or the Rules.

In the draft decision, the AER examined the impact of recent asset sales as a guide as to what a reasonable WACC should be. The AER commented that the sales indicate that the WACC sought by NT Gas was well above the WACC associated with the values similar assets were sold for and that these asset sales also indicated that the WACC awarded by the AER in recent decisions is too high. From this the AER determined that the WACCs the AER has been awarding does not under-compensate the service providers.

The NTMEU would also point out that this observation more than likely indicates that the WACCs the AER has been awarding are too high. In particular, the NTMEU is of the view that the AER has been awarding too high a debt risk premium and the attached appendix 1 supports this view.

5.1.1 Debt risk margin (DRP)

The National Gas Law requires the service provider to be granted only costs that are efficient (this is the interpretation of the National Gas Objective that is explained in the second reading speech when the Law was introduced); the Law does not contemplate that the service provider should receive greater compensation than recovery of costs that are efficient.

The provision of debt is a cost to the service provider, the same as operating expenses are. The profit that the service provider is granted under the building block approach is embedded in the market risk premium[2] that provides a return on equity. As the cost of providing debt is a cost to the service provider, then a service provider should not expect (and not be granted) a profit on the provision of debt. If the regulator allows the service provider a higher premium for the provision of debt than an efficient service provider incurs for providing this debt,

[2] The market risk premium represents the return an investor receives by way of dividend and capital appreciation, as the market risk premium is calculated from the accumulation index which reflects both dividend and capital appreciation

then the regulator is not complying with the requirement that only efficient costs should be allowed. Over-compensating a service provider is not efficient.

In its response to the NT Gas application, the NTMEU provided evidence that the WACC granted by the AER must be efficient and not less than the costs an efficient provider would incur. In this response, the NTMEU provides a report prepared by its affiliate (Major Energy Users) which has been updated with Addendum 2 to the earlier report the NTMEU attached to its response to the NT Gas application. This provides further support for the NTMEU arguments that the cost of debt must be efficient and not less than the cost of debt an efficient service provider would incur with the risks that it faces.

In its draft decision the AER has decided that the DRP should be the average of the forecast Bloomberg fair value estimate and the actual DRP NT gas major owner (96%) Australian Pipeline Group incurred in 2010 for 10 year debt raised in Australia via a corporate bond issue.

In its response to the AER draft decision, NT Gas stated that only the Bloomberg fair value should be used and provided advice from Australian Ratings which supported this view. The Australian Ratings advice addressed three questions. In each of these questions, the issue of whether indices were an appropriate method of setting DRP rather than using actual market data for specific entities to either be used in their entirety or to "bias" the market index.

What Australian Ratings (AR) was not asked to do was to assess whether the approach proposed for setting the DRP was the most "efficient" way of providing corporate debt for an entity such as APA or its near wholly owned subsidiary NT Gas.

In its response AR provides a number of views about the corporate bond market.

1. In answering question 1, AR discusses extensively "idiosyncratic risk" inherent in the market and in question 3 discusses that the APA corporate bond was reflective of the APA group risk profile rather than that of NT Gas. There is no doubt that providers of debt look at every aspect of the market when assessing risk and each has its own view as to what the risks in providing debt to a specific firm are. What AR fails to do is to assess what the specific risks applicable to NT Gas might be in comparison to APA group (which has recently issued corporate bonds) and to the market as a whole as reflected by the average cost of debt. The fact that NT Gas is a monopoly provider of gas transport which is used to provide the only fuel that Power and Water Corporation can use for electricity generation or that APA group provides what are essentially monopoly services with relatively low risk, seem to pale into insignificance when AR discusses the various analyses relating to the price of debt.

   To overcome the shortcomings AR identifies, AR is of the view that it is better to use average data than data which is more applicable to the risk profile. But this is contrary to the requirements of the Law and the Rules, which require the debt risk premium to reflect efficient provision of debt reflecting the risks applying to the service provider.

2. AR provides some indication that the credit spreads to swaps of AAA, AA, A and BBB rated five year bonds have increased markedly since the GFC and that BBB rated debt is quite volatile. It then draws some analogy to US bonds citing that the US BBB bond market has exhibited extreme volatility over the past century. What AR fails to do is to highlight that the US bond market has shown significant interest in Australian corporates in the past 1-2 years and that many Australian companies are sourcing US issued bonds (swapped back into $A) at rates much lower than for corporate bonds issued in Australia. It is

quite apparent that US issued bonds even when swapped back into $A, are a more efficient source of debt than the Australian bond market.

In this regard, the Gas Law and the Gas Rules do not mention that the DRP is to be assessed in terms of the Australian bond market, only that the cost of the debt provision must be efficient, and that the debt rate used must not be less than the cost incurred by an efficient provider.

3. AR spends some effort in pointing out that the market conditions indicate that credit is tightening and cites the movement of the ASX 200 and the marginally increasing cost the four main banks are seeing for five year debt. AR notes that the ASX 200 has performed badly in terms of movements of the US S&P 500, yet it does not assess the comparison in terms of $A/$US. If the ASX 200 is adjusted to reflect the exchange rate between the $A and $US, the performance of the ASX 200 well outperforms the S&P 500. Similarly, when assessing the bond rates for the Australian banks, AR makes no reference to overseas comparisons which would indicate that many overseas banks are facing major problems which the Australian banks are not, and that the risk profiles. It is now observable fact that Australian firms, especially those with guaranteed revenues, are seen overseas as much more attractive to debt providers than firms in their own jurisdictions.

4. AR finishes its assessment by observing that the APA 2020 bond should not be used as a benchmark because it is not representative of the cost that NT Gas would incur, and that the more expensive benchmark should be used. AR seems to comment that the debt providers probably "got it wrong" with the bond rate for the APA issue, and that anyway the APA risk profile is different to that of NT Gas. This is bizarre!

After devoting extensive discussion saying that the market gets it right in its responses to the first two questions, AR then says that the market got it wrong in the case of APA!

AR then comments that the risk profile of APA as a whole is different to that of NT Gas (a division of APA) and therefore the market average is a better indicator of the cost of debt for NT Gas because APA is recognised as being more diversified than NT Gas. What AR fails to do is to analyse what the debt profile of NT Gas is, relative to the APA group as a whole. The fact is, NT Gas is one of the lower risk elements of APA group as it is a monopoly, has as a prime customer a government owned entity which is the only provider of electricity in the NT and which has just signed with NT Gas to provide gas transport services for many years. To imply that NT Gas has a higher risk profile than APA as a whole is simply incorrect.

Overall, the Australian Ratings submission cannot be relied upon as it does not really address the issue that the AER has to decide on – that the DRP set for NT Gas must not be less than the efficient cost to provide debt to the entity, and that the debt cost allowed must reflect the costs an efficient provider would incur.

In its assessment of DRP, the AER provides considerable analysis to show that the DRP it sets for the draft decision, is not less than the efficient cost for NT Gas to provide debt for its activities. The AER makes the observation (page 82):

"While the evidence available to assess the benchmark cost of debt is limited, the AER considers that placing sole reliance on Bloomberg estimates would not result in a rate of return that is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. This view is supported by the ACG, who submitted that the proposed debt margin is "manifestly excessive"".

The NTMEU agrees with the AER that the DRP calculated from Bloomberg fair estimate curves is not representative of the cost an efficient provider would incur, especially as these indicate a cost rate far in excess of what current bond issues are costing. The AER provides examples where the issue rate for firms with a risk profile reflecting that of NT Gas, have secured debt at rates well below the Bloomberg imputed rate. The AER has noted an essential inconsistency between what the market is actually doing and what Bloomberg considers is being observed.

In this regard it is important to identify what the Bloomberg fair value for 10 year BBB+ rated corporate bonds is based on. In part, this is addressed in appendix A. What is apparent is that there is no significant number of 10 year BBB+ issued, and that to achieve a value for these, extrapolation and interpolation is needed. The AER notes that there is little systematic relationships observable on which to base such extrapolation and interpolation. This means that there would appear to be little mathematical basis on which to develop an accurate basis for development of the bond rate on which to assess the DRP.

The AER then advises that it intends to average the APA actual bond rate with the imputed Bloomberg rate to set a DRP for NT Gas. The NTMEU considers that the AER is in error by doing this.

The Law and the Rules when analysed state the provider is entitled to recover at least the efficient costs for the debt provided. The National Gas Objective (NGO):

"...is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

The second reading speech explains that efficient investment and efficient operation will deliver the least cost to consumers over the long term.

Thus the NGO is about achieving the least cost to consumers over the long term. For an efficient provider to achieve the NGO, it must provide the least cost in all elements that comprise the building block, and therefore the least cost in providing DRP.

The actions of APA in developing its debt should be seen, at worst, as being efficient and potentially being inefficient and therefore exceeding the least cost. Any debt cost in excess of the actual cost of providing debt must be inefficient. The fact that a number of other firms with a similar risk profile have obtained debt at cost rates lower than APA indicates that the actual bond rate achieved by APA might not be efficient. In fact a review of the latest (December 2010) accounts of APA show that their cost of debt is 7.7% (a DRP of 200 bp) which is similar to the cost of debt indicated by its June 2010 accounts of 7.9% (a DRP of 220 bp).

The December accounts include for the full half years cost of the bond issued at a DRP of 298 bp in mid 2010. As the 96% owner of NT Gas, the APA bond issue and actual accounts, provide a very good indication as to the realistic cost of debt applying to NT Gas.

What is just as important, is that APA achieved this actual DRP when its gearing is some 70% when the gearing for the benchmark is assumed to be 60%. In practice a lower gearing should result in a lower DRP, implying that the actual APA debt cost is probably higher than that a 60% geared entity would achieve.

A refinement of course would be to assess the risk profile of NT Gas relative to the other elements of APA, but NT Gas, being a monopoly with a contract from a government owned entity which provides an essential service in the NT, has a risk

profile less than the unregulated elements of APA business portfolio. Detailed analysis would reveal that the NT Gas operation of APA is lower risk than the average of APA operations.

The AER must set the DRP at the efficient level for providing debt. APA, the beneficial owner of NT Gas, has provided a market based indication as to what they can achieve for the provision of long term debt and this must be seen as more efficient than using Bloomberg estimates whether in whole or in part.

If the AER uses a DRP derived from:

- Bloomberg data (in whole or in part) then it will not be using a DRP which is efficient as demonstrably lower DRPs than that derived from Bloomberg of 460 bp, have been seen in the market for equivalent firms, then the AER is not complying with the NGO as the DRP is not demonstrably efficient

- APA bond issue, then it is more likely to be efficient but not necessarily so, as other bond issues by similar firms both in the overseas and Australian markets have achieved lower DRPs than the APA issue at 298 bp

- The actual costs APA have demonstrably incurred (a DRP 200-220 bp) for providing debt to its operations (including the recent bond issue) would imply that debt can be provided more efficiently than is implied by using just the recently set APA bond rate.

The AER is required to set a DRP which is to reflect the least cost to consumers over the long term and which is not to be less than the costs an efficient provider would incur. Based on actual hard data (and not using data that is extrapolated and interpolated), it would appear that an efficient DRP probably lies between 220 bp

(the rate APA actually is securing its debt for) and 298 bp (the cost rate APA issued corporate bonds for).

An efficient DRP is certainly not the 379 bp used in the draft decision or the 460 bp identified by NT Gas in its revised application.

5.1.2 Market risk premium (MRP)

The NTMEU notes that the AER has, in recent reviews, determined that the market risk premium of 6.5% it set at the WACC review, is now too high and the MRP should be set at 6.0%. The NTMEU agrees that an MRP at 6.5% is too high when considering the market data. The fact that the AER set the MRP at 6.5% at the height of the GFC concerns as a means to ensure adequate reward for service providers was maintained, is no longer applicable as the Australian market.

In fact, as the effects of the GFC in Australia were ultimately so small, raises the question as to whether the AER should have lifted the MRP at all. The AER is to be supported in its decision to bring the MRP back to the long term level the AER and other Australian regulators have used for the past 16 years except for the recent short period where the AER elevated it.

As the AER rightfully points out, there is no longer any justification for it remaining at the higher level. In fact, the NTMEU is of the view that the historic levels of MRP indicate that the MRP should be less than the 6% used in the past.

The AER has pointed out that its assessment that MRP should be set at 6% is based on using a gamma of 0.65. As the ACT has determined that gamma should be set at 0.25, the AER should reassess the MRP in light of this decision and reduce MRP below 6% so that consistency is maintained within the market parameters.

5.1.3 Equity beta

The NTMEU notes that the AER considers that AGP operations have a risk profile similar to other regulated pipelines and that the equity beta should not be held at a value of 1.0 but should be reduced to a value of 0.8. The NTMEU agrees with the AER that the reasons provided by NT Gas for having a higher equity beta do not support a higher equity beta being utilised.

The NTMEU has followed the arguments provided by many regulated firms to support their being granted a higher equity beta than 0.8. The NTMEU has also noted that the AER has implied in some recent decisions (and even during the WACC parameter review in 2009) that an equity beta of 0.8 is probably at the high end of a reasonable range for this parameter when assessing regulated entities.

The NTMEU notes that in its revised application, NT Gas continues to seek an equity beta of 1.0 on the basis that

- It is different to other monopoly gas transport pipelines but fails to provide convincing arguments that this is so

- It has a higher financial risk compared to the market as a whole due its higher gearing. What NT Gas does not do is highlight that the gearing of its parent (APA) is nearly 70% (well above the notional gearing of a benchmark gas transport business) but despite this it has a credit rating of BBB just one level below the benchmark rating of BBB+.

- It faces a risk of stranding. This is hard to believe when it has PWC contracts to transport gas for power generation to many locations in the Territory

The NTMEU agrees with the AER that an equity beta of no more than 0.8 should be used for this revenue reset for the AGP

5.1.4 Gamma

The issue of dividend imputation continues to be vexed, with the AER being challenged regularly on its assessment of gamma for the notional Australian energy network. NT Gas sought a gamma value of 0.2 and the AER noted that its "Trustee" status might mean that no tax is payable. Despite that the AER has decided that its decision should reflect the costs a tax paying entity would incur. This is comparable to the approach the AER uses for assessing notional tax liabilities for government owned regulated entities.

The NTMEU has provided its views on gamma with its response to the NT Gas application and in its draft decision, the AER determined gamma should be set at 0.45

Since the draft decision was prepared, the Australian Competition Tribunal has determined that another regulated entity should be granted a gamma of 0.25.

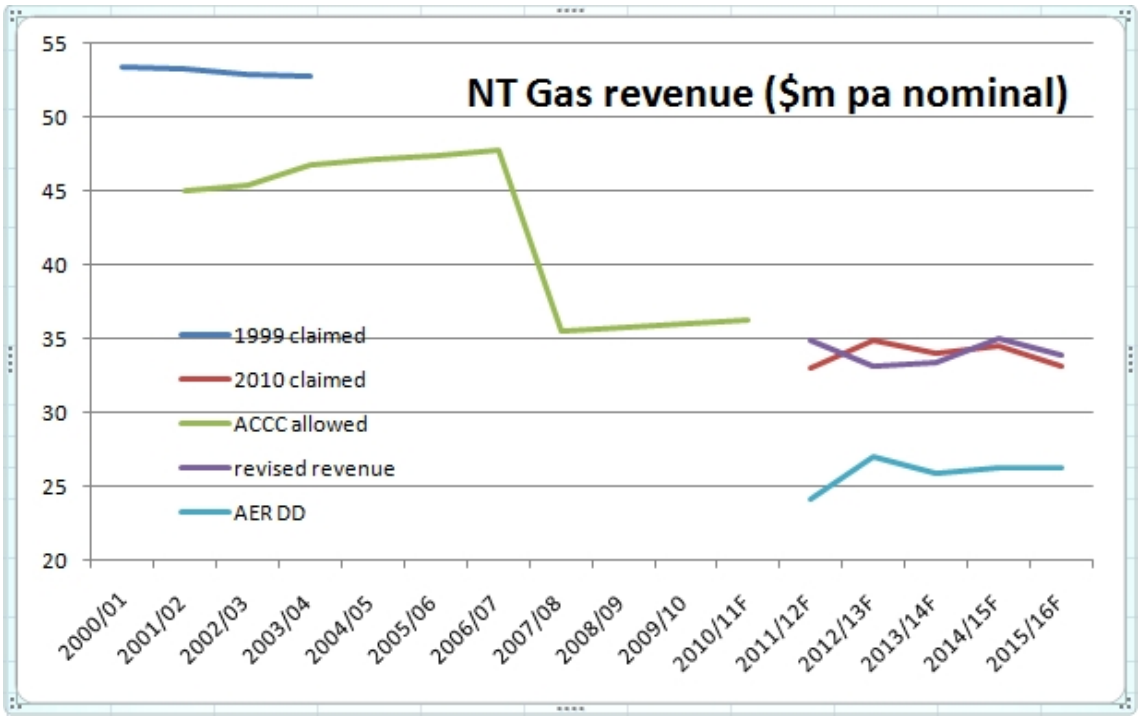
In light of the ACT decision, it is therefore quite difficult for the AER to set a value higher than this, even if it is convinced that a higher value is warranted. The NTMEU is concerned that the ACT has "stood in the shoes" of the AER and determined such a value, which is quite possibly too low a value. The NTMEU considers the AER should appeal the ACT decision so that a more justifiable value might be developed.

5.2 Revenue

In its application NT Gas has provided a calculation which develops the targeted revenue it considers results from its assessment of the various cost inputs. This was

recalculated in its revised application but essentially the revised revenue was much the same as in its initial application, despite the massive increase in capex sought. The AER in comparison considered that the allowable revenue should be much less than that claimed by NT Gas.

The following figure shows the nominal revenue claimed by NT Gas in its 1999 application, the nominal revenue allowed by the ACCC in its final decision in 2001, as well as the new revenue sought by NT Gas for the next period. The significant fall in allowed revenue in 2007 relates to the changes in depreciation rate. Also shown are the initially forecast revenue, the revised forecast and the AER draft decision allowance.



Source: NT Gas applications, ACCC FD, AER DD

The new revenue schedule shows that NT Gas seeks between $33m and $35m although NT Gas has also provided a "smoothed" revenue stream as well.

The NTMEU considers that the revenue stream allowed in the AER draft decision is overstated and needs to be reduced based on the comments in earlier sections. The NT Gas claims are significantly overstated. Interestingly the AER decision (although less) is closer to the revenue expected by NT Gas owner APA group which (as the NTMEU noted in its response to the NT Gas application) was some $29m pa[3].

This inconsistency in data provided supports the NTMEU contention that NT Gas has significantly overstated its opex and WACC needs and provides support for the AER assessment.

[3] On page 131 of its initial submission, NT Gas asserts that AGP is expected to return to APA some $29m of the total $689.3m of expected APA revenue

Appendix A

Australian Energy Regulator

Measuring the Debt Risk Premium

A Submission
by
The Major Energy Users Inc
Updated March 2011

Assistance in preparing this submission by the Major Energy Users Inc (MEU) was provided by Headberry Partners P/L and Bob Lim & Co P/L
The content and conclusions reached in this submission are entirely the work of MEU and its consultants

Executive Summary

The Major Energy Users (MEU) have on-going concerns with the excessive cost of capital used by the Australian Energy Regulator (AER) in setting regulatory revenues in its various energy network pricing reviews.
It is the MEU's view that this has been a major factor in driving up regulated energy network prices in recent AER pricing reviews.

The MEU, in particular, considers that a more appropriate return on the debt portion of the weighted average cost of capital (WACC) should be applied by the AER and to stop over-rewarding network businesses. A serious outcome arising from the AER's use of an excessive level of cost of capital is that much inefficient network investment has been incentivised, thereby contributing to the recent network price shocks experienced by consumers.

The ACCC argued during the development of its statement of regulatory principles in 2004, that it is preferable to set a debt risk premium (DRP) that is independent of the way a firm might actually provide its debt, as this provides an incentive for the firm to be efficient in its debt provision. Effectively, this means that the ACCC recognised that it needed to encourage efficient debt provision and that consumers should not be charged for a firm's inefficient arrangements in the provision of debt.

The observation implies that the ACCC would set a benchmark, which was efficient, but might have a little "head room" so that the regulated firm could provide for debt more efficiently and benefit from this. As the energy regulatory regime is based on incentive regulation, inherent in the ACCC approach is that over time, consumers would benefit from this increased efficiency that the regulated firms were encouraged to achieve.

In the period prior to the Global Financial Crisis (GFC) the outcomes of the ACCC approach to setting DRP seemed to be reflected by the actual costs of debt incurred by regulated firms. This provided confidence that the ACCC approach had legitimacy recognising that the firms actually used different approaches to providing for their debt. As the outcomes of the actual debt provision by the firms were similar to the DRP calculated by the ACCC, the outcomes reflected efficiency in debt provision and there was no need to vary the approach used.

However, since the GFC there is a very clear disconnect between the AER approach to setting DRP and the actual costs incurred by regulated firms. That this is so is obvious from a number of sources. The Australian Pipeline Trust (noting that APT has both regulated and unregulated assets) successfully

issued a corporate bond at a rate well below the AER calculated benchmark, and the actual costs incurred by regulated firms show the cost of their debt is well below the AER benchmark. Additionally, demonstrating that the AER approach clearly does not reflect an efficient DRP as most of the regulated energy firms have not used the Australian bond market to any great extent, indicating that the costs for doing so are much greater than other sources of debt provision.

The DRP levels set in recent times by the AER are much higher than the actual costs for providing debt incurred by regulated firms. This suggests that, post GFC, the market has changed dramatically and therefore the AER has to assess whether it should continue with an approach to setting a DRP that delivers a significantly higher DRP than the actual costs incurred by a firm in providing debt.

Essentially, what the AER approach does is to use a single source of debt which has to be interpolated and extrapolated to provide an outcome. The AER then uses this single output to provide a benchmark source for all debt provided (ie the AER generalises an outcome from a single output); this is poor regulatory (and scientific) practice.

To continue with the current practice is to assign an inefficient level of debt cost in the WACC and condemn consumers to pay an unnecessary premium for the network services provided. An inefficient WACC is contrary to both the National Electricity/Gas Laws and the objectives and principles embedded within them. Even the Australian Competition Tribunal (in its September 2010 Decision in relation the ActewAGL appeal, seems to support a change to the current AER approach.

Analysis of the Electricity/Gas Rules shows that they do not require the AER to apply an inefficient DRP and thereby provide a premium in the WACC that consistently overstates the costs that an efficient service provider actually incurs, thereby providing the service provider with a large windfall benefit.
This paper was originally developed to respond to a Discussion Paper issued by the AER in September 2010 in relation to the Victorian Electricity Distribution Pricing Review. Since that time the MEU has obtained additional information which augments its earlier comments and the response now includes two addenda (addendum 1 prepared in December 2010 and addendum 2 prepared in March 2011) which provide updates on a main paper prepared by the MEU in response to the AER's Discussion Paper. These updates further highlight the deficiencies in the AER's current approach to setting debt risk premium.

Addendum 2 (March 2011)

Issue 1 – History of the current arrangements for setting Debt Risk Premium (DRP)

The approach to setting the DRP had its genesis at the Great WACC Debate of '98 where the ACCC and the Victorian Office of the Regulator General hosted a forum to discuss issues for setting the Weighted Average Cost of Capital (WACC) for regulated businesses. The outworkings of this forum and subsequent work during 2003 and 2004, culminated in late 2004 when the ACCC issued its Statement of Regulatory Principles (SRP). The ACCC also provided a background paper which explained the principles underlying its statement.

The SRP was published by the ACCC on 8 December 2004 along with the background paper. The SRP stated, in regard to debt risk premium, that:

> **8.7 Cost of debt**
> In determining the cost of debt the ACCC will use a 10 year government bond rate as a proxy for the risk free rate and proposes to calculate a benchmark debt margin, corresponding to a 10 year term and a benchmark 'A' credit rating for a TNSP. This would be subject to the practical application of available benchmark data on long dated Australian corporate bonds.

The AER restated this approach when it assumed responsibility for regulation by inserting "AER" for "ACCC" in the statement of principles.

The ACCC explained its reasons for this approach in the background paper. It stated:

> **8.6.5 ACCC's considerations**
> In the DRP the ACCC stated that it would not reference a TNSP's actual cost of debt because the actual cost of debt may not reflect efficient financing. A WACC based on an industry wide benchmark cost of debt may deter inefficient debt financing, as the revenue cap will only contain a return on capital allowance consistent with the return requirements of efficient financing.
>
> The ACCC considers the reference to electricity network companies generally (rather than the actual position of the firm in question) should provide an incentive for the TNSP to establish least cost financing arrangements within the regulatory period.

> ... The debt margin (short term averaging period equal to the averaging of the risk free rate) should also reflect the prevailing rates which represent current market expectations for debt issues at the benchmark maturity and credit rating for the regulated entity.

The ACCC makes it clear that the actual cost of debt that a NSP incurs might not be efficient, and so to "...deter inefficient debt financing ..." it would use an external benchmark as a proxy for implied efficient debt financing. The clear implication of this approach is that the NSP will not be rewarded for inefficient debt financing. In fact the ACCC approach seems to indicate that there is an upper limit to efficient debt financing and this will be set by reference to the corporate bond market.

When the Chapter 6 and 6A rules were subsequently developed the ACCC's SRP was used as the basis for the sections on setting the debt risk premium.

Issue 2 – There has been no review of the methodology

In the draft statement of regulatory principles, the ACCC compared the outcomes of the methodology of its approach with what was seen in practice. The outcome of the approach used by the ACCC and the state regulators to set the DRP, was seen to reflect the actual costs incurred by the regulated businesses in the provision of debt and this provided a view that the approach reflected efficient provision of debt.

Further, as the bulk of electricity distribution and transmission businesses are owned by state governments, the debt provided to the regulated businesses by the state Treasuries has continued to reflect the levels observed before the GFC. State Treasuries raise funds based on the fact that they are part of government but are required to add a premium to this debt when funds are on lent to the regulated businesses so as to maintain competitive neutrality with non-government owned businesses[4]. Despite the impacts of the GFC, the cost of debt to government owned businesses has hardly moved and reflects DRP levels that occurred prior to the GFC.

The benchmark levels of DRP developed from the approach used by the ACCC and others ranged in the 100-160 bp band and this approximated the levels of DRP that were observable in the actual costs regulated businesses (both private and government owned) incurred. This provided confidence that the approach did provide an efficient and sensible outcome.

[4] See addendum 1 issue 1

Because of this, during the AER's WACC review the entire focus of the review in relation to DRP was on the rating to be used. In the draft decision the AER set a credit rating level of A- but this was revised down to BBB+ in the final decision.

The WACC review was carried out on the cusp of the GFC and this has caused significant movements and volatility in the levels of DRP.

Since the GFC, there has been an observable increase in the DRP for Australian corporate bonds and an increase in the DRP levels actually incurred by privately owned regulated businesses, although there was little change in DRP levels for government owned businesses. Further, the Australian corporate bond market has shown that there is little trade, especially by regulated electricity and gas businesses. What has been observed, is that many businesses are now seeking debt overseas because the cost of Australian corporate bonds is much higher than in overseas jurisdictions. Effectively, the cost of debt on the corporate bond market in Australia is regarded as too high.

This means that since the GFC, there has been a quantum shift in the market for debt that has resulted in the cost of debt provided by the Australian corporate bond market to be seen as no longer an appropriate benchmark. That this is the case cannot be denied.

There is no regulated energy transport business seeking funds in the Australian corporate bond market. The closest to one is the APA Group which has some regulated assets. Even then, the APA 10 year bond at BBB rating was secured at rates well below the apparent 10 year BBB+ rating inferred from the bond market.

Scrutiny of 2009/10 annual reports for regulated firms (ie post GFC) show that the other listed but privately owned regulated businesses have an implied DRP much lower than the benchmark rate inferred by the AER from the Australian corporate bond market. Further, they also show that their debt is not sourced from the Australian corporate bond market. As noted in addendum 1, the government owned regulated energy service providers have debt rates even lower than the privately owned businesses, despite the government Treasury corporations adding a premium to reflect open market rates.

The historic comparison between the Australian corporate bond market and DRP for regulated businesses shows that, prior to the GFC, there was positive correlation between the benchmark and actual outcomes, giving support to the approach used at that time.

However, there is now an obvious quantum shift that shows the historic relationship is no longer valid. The current approach that the AER has carried over from the ACCC Statement of Regulatory Principles without assessing its continued validity, is demonstrably resulting in inappropriate settings for DRP and is no longer serving its intended purpose of providing a realistic benchmark for performance in efficient debt sourcing.

In fact, that all the current approach is doing is providing a significant windfall benefit to regulated businesses (especially government owned businesses) at the expense of energy consumers.

Issue 3 – The ActewAGL decision by the ACT

In September 2010, the Australian Competition Tribunal (ACT) assessed an appeal by ActewAGL regarding the setting of the debt risk premium. Whilst the ACT addressed quite specific issues, it also made some very important observations in the course of its decision[5]. Whilst the decision was made in relation to the application of National Gas Law and the National Gas Rules, the decision is readily transferrable to the electricity market.

The first observation made by the ACT is at paragraph 10:

> "There are various ways to estimate the debt risk premium. Estimates based on historical averages are one of the most common proxies for the debt risk premium. Surveying market participants is another method and has the advantage of better reflecting prevailing market conditions. The debt risk premium can also be estimated based on the yield (ie return) on corporate bonds, which is the method commonly adopted by Australian regulators."

The ACT followed this (at paragraph 79) with the view that:

> "Of course, we do not intend to discourage the AER from investigating other ways to estimate the debt risk premium."

The clear import of these observations by the ACT (as they sought to derive a solution to the appeal through considerable debate as to statistical methods and sources of information) is that there may be a better and less contentious approach to set an efficient level for debt risk premium.

The second observation is that there is no clarity or transparency available regarding the methods used by CBASpectrum and Bloomberg as to how the fair

[5] Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010)

value curves are developed and so explain why there are significant differences between them[6]. The ACT comments at paragraph 23:

> "The importance of choosing the right estimate is driven by the divergence between the two curves. The divergence may be observed by examining [figures in] the AER's final decision with the dates normalised ... No doubt the divergence is a reflection of the different methodologies and data used to produce the respective estimates. **Only limited information is known about the methodologies. Each involves exercises of judgment and discretion which are non-transparent.** The differences in methodology can be observed by examining the fair value curves of both companies ..." (emphasis added)

The ACT notes that because of the disparity between the two benchmarks, the AER used "real world" observations of actual known bond issues to assess which of the two benchmark approaches might deliver the more relevant outcome. The ACT notes that in its endeavours the AER approach created more difficulties and potential arguments than it solved. The ACT makes these points quite strongly at paragraphs 68 and 69:

> "First, the Tribunal is sceptical about any statistical testing for an outlier amongst a mere six candidates. With such a small number of observations, a finding that one or more bonds were outliers would be unsurprising, but ought to draw attention back to what, if anything, can be ascertained from statistical testing in such a small pool of data.
>
> Second, if the AER is to undertake statistical testing in the future, it should reconsider its approach to data interpolation."

Generally the ACT was critical of the statistical approach the AER used to assess which of the fair value curves provided a more reliable benchmark for setting the debt risk premium. Its decision was that the AER should have averaged the two fair value curves rather than attempt to demonstrate that one was more appropriate than the other.

The ACT finally pointed out that there was a major issue that needed to be addressed. At paragraph 72 the ACT commented:

> "The reason a 10 year bond was originally chosen was because, in the past, many firms favoured long term debt, albeit that it came at a higher cost, because it reduced refinancing or roll-over risks. The high rate was then hedged via interest rate swaps. That may no longer be the position. If not, the AER may need to reconsider its approach in light of more current strategies of firms in the

[6] In Addendum 2 Issue 4 regarding the Oakvale input, Oakvale provides some insight into the disparity

> relevant regulated industry. Further, there seems to be little point in attempting to estimate the yield on a bond which is not commonly issued."

In this statement the ACT has summarised succinctly the main issues with regard to the current AER approach to assessing debt risk premium:

- There are few 10 year Australian corporate bond issues so there is little data available to interpolate a debt risk premium from them
- The reasons as to why there are so few bonds to establish a benchmark is that most firms do not use such instruments and this is particularly noticeable by the absence of such bonds in the debt portfolios of the regulated firms
- Historically the use of 10 year corporate bonds provided a basis for assessing DRP that reflected what actually occurred in the market, but the way the debt market now operates implies that there are better approaches to providing debt
- If the 10 year corporate bond is so scarce, and other approaches are used by regulated firms, why persist in trying to develop a DRP benchmark from this source of data.

The Australian Competition Tribunal decision provides convincing arguments that the current approach to setting the DRP needs to be significantly revised.

Issue 4 – The Oakvale input

As part of its review of the Envestra gas distribution reviews in SA and Queensland, the AER sought advice from Oakvale Capital Ltd, which provides professional financial risk advice to corporate and government institutions. The value of the Oakvale report is that it provides independent advice to mitigating operational risk associated with the treasury functions of large enterprises.

Whilst the Oakvale advice to the AER is focused on responding to a number of specific questions, the advice also provides some quite illuminating observations regarding the AER approach of using 10 years BBB+ rated corporate bonds as the benchmark for establishing an appropriate debt risk premium to be applied to energy infrastructure businesses.

In particular, Oakvale observes that "bonds ain't bonds" – that bonds have a number of features that will impact on the yield that is likely to be negotiated between the issuer and the debt provider[7]. An investor will address aspects

[7] For example on page 7 Oakvale observes that "....the debt market practitioner will use a combination of both qualitative and quantitative analysis to determine whether the bond

such as the options that are included in the bond have some impact, but also other variables such as (page 1):

> "... but not limited to, industry sector, market sentiment, economic outlook, credit rating and secondary market liquidity[8] more heavily influence the price/yield that an investor is willing to pay."

Oakvale goes on to assess the general marketability of corporate bonds and notes that the term to maturity of a bond is a key element (page 2):

> "[B]onds with longer maturities will normally require a higher return; longer term bonds may be beyond an investor's portfolio mandate for their investments. For example, most investor groups are limited by mandates that prohibit investments beyond three or five years. Here, 'investor groups' includes (but is not limited to) financial institutions, corporate clients, retail investors, superannuation funds, charities, hedge funds, fixed income investment funds, and insurance companies.

The very fact that most debt providers do not accept bonds with a term of more than 3-5 years results in two very important issues – firstly that there will be a scarcity of debt providers for longer term bonds, and secondly that longer term bonds will attract a higher yield because there is a lack of a secondary market liquidity for such instruments.

Oakvale than observes (page 3) that banks regularly are issuers of senior debt and have a maturity of up to 5 years. As a result there is considerable liquidity in such bonds because of the wide investor base and the transferability of the bonds. This means that price discovery is reduced as there are several peers for comparison, ensuring accurate and transparent pricing.

In contrast, the AER approach to setting DRP is heavily constrained due to the minimal availability of data for 10 year bonds and few (if any) bonds with BBB+ credit rating. As a result the AER has had to interpolate and extrapolate data from a few long maturity bonds to derive a yield for the target duration and credit rating. This view is reinforced by the Oakvale observation (page 3) that:

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represents overall value to him as an investor..." and on page 8 "...The debt market practitioner will, after assessing advantages / disadvantages plus the qualitative analysis as previously described, determine whether the bond represents overall value."

[8] Oakvale points out on page 17, that differences in perceived liquidity impact yields. They note "...e.g. a Bank of Queensland bond would be considered to be more liquid than a Dalrymple bond and therefore trade at a lower relative yield."

> "Liquidity is not readily available in the Australian corporate bond market, in contrast to the Australian commonwealth and semi government bond markets. This creates an ongoing challenge for issuers as even though they can raise funds in this market it is not readily available and therefore cannot be relied upon as a ready source of capital."

This observation reinforces the MEU contention that the bulk of debt raised by energy infrastructure firms is not raised from the corporate bond market at all, and therefore using the bond market as a surrogate for assessing DRP is totally inappropriate.

The AER approach is predicated only on just the credit rating of the issuer but Oakvale makes the observation that there are many other aspects regarding the provision of debt via bonds that a debt provider will use to assess the yield than the credit rating. Oakvale lists the following as important aspects for consideration (page 3):

- "Market sentiment – does the market momentum / economic outlook support investment at the current point in time, and what are expectations going forward? In particular, debt market practitioners would consider the economic prospects and the outlook for interest rates.
- Scarcity (availability) and desirability of issuer – is the issuer constantly issuing, is there over/under supply on the market at the moment, will there be significant issuance in the future? Liquidity of bond issues is important in determining pricing. For example, banks issue senior bonds regularly; these tend to be highly rated issues with a maximum maturity length of five years. Therefore senior bank issues have maximum liquidity as they can appeal to the widest possible investor base and have maximum transferability. Price discovery is reduced as each bond issue has several peers it can be compared against – ensuring accurate and transparent pricing.
- Industry prospects – what is the outlook for the industry that the issuer normally operates in?
- Financial standing of company – how is the financial standing of the company and what are its prospects?
- Abnormal features – does the bond contain any abnormal features or one off terms that may impact secondary market liquidity?"

In addition to these features which impact on the expected yield, Oakvale notes that the options embedded in the bond also have a major impact on the nominal yield, such as whether there is a call option included. Oakvale points out that a call option increases the yield as there is a risk that the issuer will exercise the call if general market rates fall.

In its September 2010 Discussion Paper the AER noted that it considered it might use the average of the Bloomberg fair value index and the actual yield for Australian Pipeline Trust (APT) 10 year bonds to derive the surrogate DRP because the CBA Spectrum index had been discontinued. In its final decision for the Victorian 2010 EDPR, the AER determined a DRP being comprised 75% of the Bloomberg value and 25% of the actual DRP achieved by APT.

However, it has been consistently observed that the Bloomberg fair value index tended to be a higher value than that determined by CBA Spectrum. Oakvale seems to have provided a reason for this discrepancy. On page 25 Oakvale comments that:

> "Bloomberg often uses composite quotes (i.e. where they believe the market should be), whereas market practitioners use pricing models and actual data flow for pricing and this is deemed more reliable."

This observation provides a clear reason why Bloomberg values might be higher than actual observed values (such as the APT bond issue) as an expectation of "what should be" tends to provide an overstated view of the market when compared to actuality. That the AER considered that a value based more on "what the market should be" compared to what actually occurred is of major concern.

On page 17, Oakvale provides a general view as to the corporate bond market:

> "All bonds, whether callable or not, will trade at different levels as not all debt market practitioners will assess the bonds equally. As previously described not all bond valuation is logic and quantitative analysis, there is a high degree of qualitative analysis involved and many variables that are considered when the market determines the relative yield of one bond versus another."

This assessment provides a much different view as to the efficacy of using the corporate bond market to provide a surrogate value for DRP.

In its report Oakvale makes the clear point that the corporate bond market is only a small part of the overall debt market, and that bonds tend to be of much shorter duration than 10 years. This makes the use of the bond market for the purpose of setting DRP highly suspect when combined with the Oakvale view that the bond market is also quite subjective (being strongly influenced by qualitative aspects).

The Oakvale report tends to reinforce the MEU view that the AER approach to setting a DRP based on the corporate bond market is flawed, especially when the actual sources of debt used by energy infrastructure firms uses the bond

market for just a small part of its debt. Essentially, what the AER approach does is to use a single source of debt which has to be interpolated and extrapolated to provide an outcome. The AER then uses this single output to provide a benchmark source of all debt provided (ie the AER generalises an outcome from a single output); this is poor regulatory (and scientific) practice.

Issue 5 – The Garnaut observations

Professor Garnaut has been retained by the Commonwealth Government to update his 2008 report on Climate Change. During early 2011, he has been releasing updates on his report preparatory to releasing his Final Report. Garnaut Update #8 (released in late March 2011) provides Garnaut's views in relation to "Transforming the electricity sector".

Amongst his key points he states (page 2):

> "The recent electricity price increases have mainly been driven by increases in the costs of transmission and distribution.
>
> - There is a prima facie case that weaknesses in the regulatory framework have led to overinvestment in networks and unnecessarily high prices for consumers.
> - The upcoming review of regulatory arrangements by the Australian Energy Regulator presents an opportunity to correct distortions in current regulations."

Garnaut points to the result of excessively high rates of return on capital as being a key incentive on the network business to over-invest in network assets. He observes (page 42):

> "So there are cascading mechanisms through which the shareholders of state-owned businesses—like most electricity distribution businesses outside Victoria—do well out of over-investment. May be, that provides part of the explanation for why government-owned network providers invest more heavily than privately owned providers and have consistently over-spent their regulated allowance (Mountain & Littlechild 2010). May be that is why the rate of increase in distribution and intra-state transmissions investments is so much higher in other states (with mainly state-owned distribution enterprises) than in Victoria (where these assets are owned privately)."

Garnaut observes that (pages 41, 42)

> "There seems to be little recognition that investment in the network is recouped with near certainty, being passed on to creditworthy retailers who recoup it from customers. ... And yet the discussion of returns proceeds as if this were a mixture of ordinary business equity and debt investment, earning normal commercial returns for debt and equity.
>
> Regulatory imperfections in this area can lead to excessive returns being allowed on investment and in turn encourage over investment. The extraordinary increases in the regulated components of electricity prices since this system has been in operation confirms the case for the system to be subject to an early and searching independent review.
>
> ... In Australia the cost of general corporate debt is used, which has an interest rate around 2.5 percentage points higher. If regulated firms can borrow more cheaply than the rate of debt allowed through the regulatory process, then they can profit from over investment.
>
> The rate of return allowed on the equity component of the weighted average cost of capital does not seem to reflect the low risk of these investments.
>
> Where the business is government owned, the regulated rate of return exceeds the true underlying cost of finance to the owner to an even greater extent. For instance, in February 2011, the average interest rate on 3-year New South Wales Government bonds was around 5.5 per cent, compared to the average interest rate on AA-rated 1-5 year corporate debt of around 6.1 per cent."

Garnaut considers that there is a prima facie case for reviewing the way the cost of debt is set so that the cost of debt used for setting the WACC reflects the actual costs incurred by the business. He adds that a failure to ensure that the rate of return used really reflects the true risk profile of the business, then the outcome is not only an unwarranted cash benefit but a mnore insidious impost on consumers caused by the incentive to overinvest in network assets.

Issue 6 – The NEM is an incentive regulatory environment

An incentive regulatory environment (such as that established by the National Electricity Law and the National Gas Law) is intended to drive a regulated business to the most efficient cost structure. As Mr D Biggar stated in attachment B to the Discussion Paper issued by the ACCC in 2003 in its review of the draft Statement of Principles for Regulation of Transmission Revenues:

> At the broadest level, "incentive regulation" is the use of (usually financial) incentives in this regulatory compact to align the interests of the regulated firm with the objectives of the regulator.[9]

Essentially this means that in order to get to the most efficient operation, there is a financial incentive on the regulated business to perform at a more efficient standard than it is currently doing. The incentive is that the benefits of the more efficient approach can be retained by the business for a period of time and thereafter the out-turn performance is provided to the consumer as is intended by the National Electricity/Gas Objective – the long term interests of the consumer.

The clear import of the incentive is that as the regulated business shows that it is performing better than the regulator-set benchmark, then the benchmark should be reset to reflect the actual performance of the business where the business has demonstrated that the benchmark is no longer appropriate or relevant.

It is clearly inefficient to set a benchmark that exceeds the actual performance of the regulated business, as the outturn results in not providing an outcome that is in the long term interests of consumers.

Issue 7 – All NSPs have a portfolio of debt

The ACCC/AER approach is based on single source of debt of a single duration assessed at a single point in time.

In contrast, the financial structure of all NSPs shows that they have a portfolio of sources of debt, with varying durations and varying renewal dates. The actual practice of the NSPs shows that the ACCC/AER approach is not realistic.

That this is the case cannot be denied. Many Australian corporations issue corporate bonds, especially the banks, for bonds of up to 5 year terms, as Oakvale notes.

But even more obvious in the crafting of their portfolios of debt, Australian firms are seeking overseas sources of debt through the issue of bonds in other countries. Such bonds are being converted into $A via exchange rate swaps to still deliver debt at lower rates than can be achieved by the issue of bonds issued into the Australian market. That this can be achieved shows that

[9] It is recognised that the Biggar observation was made specifically in relation to opex and capex, but the principle equally applies to other elements of regulation.

corporations are demonstrating efficiency in debt raising by using such methods, and preferring to source debt more cheaply than in the Australian corporate bond market.

The Australian Financial Review of 9 March 2011 reports[10]:

> "After emerging from the earnings season, more Australian companies are expected to tap bond markets to refinance debt with international markets keen to gain exposure to Australian companies.
>
> "US private bond investors have demonstrated a nearly insatiable appetite towards Australian corporate debt," said National Australia Bank's US-based co-head of capital markets origination, Geoffrey Schmidt. "With low unemployment, a stable business environment and strong ties to China, investors completed more transactions than any country outside the US," he said.
>
> ...While local corporate bond issuance is expected to increase, international markets are expected to account for most non-financial corporate bond issuance. Already this year, the US private placement market – which consist of buy and old life insurance funds – has seen several bond issues by Australian firms including ... [placements] by TRUenergy, ... engineering firm WorleyParsons and ... Dalrymple Bay Terminal. ... Brisbane Airport ... is said to also be meeting with US insurance funds ... QR National [is] likely to access the world's largest corporate bond market for financing."

That these Australian corporations seeking such large amounts of debt shows that international fund raisings are preferable to the higher priced local market clearly shows that efficient debt requires more than debt from just a single source.

Analysis of the debt structures of most Australian public corporations show that their debt is a portfolio of not only varying maturities but also from a range of sources, be it bank debt, local bonds, international bonds or more.

The market has demonstrated that local bonds are currently not preferred to international bonds (especially when hedged back to $A), providing the AER with clear evidence that their current approach to setting DRP, is essentially flawed, and does not reflect an efficient debt structure.

Issue 8 – NSPs have a lower debt cost than the AER set DRP

[10] "Europe shells out €550m for Amcor bond issue"

A review of the actual costs of debt of NSPs has shown that a portfolio approach is more efficient than a single point debt approach. Further, the actual costs of debt incurred by NSPs shows that the values the AER is setting for DRP is significantly higher than the actual costs of debt NSPs are paying.

That actual debt costs are lower than the AER benchmark shows that the AER benchmark is neither efficient in itself (because it is not reflective of how debt is sourced efficiently) nor does its outcome replicate the outturn of efficient debt provision.

This can be readily demonstrated. In its revised decision after a successful appeal by EnergyAustralia (now AusGrid) to the Australian Competition Tribunal, the AER released a revised final decision for the EnergyAustralia network distribution determination for 2009-2014. In it the AER provided table 2 which details the debt risk premia to be used

Table 2: AER conclusion on the debt risk premium for the NSW DNSPs (per cent)

NSW DNSP	Averaging period determined by the Tribunal	Debt risk premium	Risk–free rate	Nominal return on debt
Country Energy	18 August 2008 to 5 September 2008	3.00	5.82	8.82
EnergyAustralia	18 August 2008 to 5 September 2008	3.00	5.82	8.82
Integral Energy	18 August 2008 to 5 September 2008	3.00	5.82	8.82

However in its Annual Report for financial year ending 2010, EnergyAustralia notes on page 67 that it had access to $6.3 Bn in long term loans from NSW Treasury Corporation (T-Corp)

The report adds (page 68):

> "The non-current T-Corp loans are payable on or before 15 April 2039, with maturity dates ranging between 2 and 29 years from reporting date.
>
> All T-Corp debt is fully payable on maturity with the majority being fixed rate loans."

What is most illuminating is that the interest rate payable by EnergyAustralia for its loans is provided:

	Consolidated Entity		EnergyAustralia	
	2010 %	2009 %	2010 %	2009 %
(4) Effective interest rates:				
Bank overdraft	**4.2**	2.7	**4.2**	2.7
T-Corp short term accommodation	**4.7**	3.2	**4.7**	3.2
T-Corp loans	**5.9**	5.7	**5.9**	5.7
Inscribed stock	**7.0**	6.9	**7.0**	6.9

This means that EnergyAustralia was provided with debt recovery at a rate of 8.82% by the AER/ACT, but is only obliged to pay its major debt provider at the rate of 5.9%. This provided EnergyAustralia with a surplus of 292 basis points which equates to a surplus of 175.2 bp on the WACC. Translating this over-recovery on WACC into cash means the AER/ACT decision meant that EnergyAusytralia's customers contributed an unnecessary $170m in 2009/10 to its owner – the NSW government. Effectively this is indirect taxation that the AER has allowed to be levied.

A similar calculation could be made for network owners in Queensland and Tasmania as well as for the other three networks in NSW. This clearly provides quantification of the observations made by Garnaut in his update #8.

If the ACCC/AER approach consistently delivered a benchmark that could not be achieved by most NSPs then such a benchmark would be classified as inefficient as it would provide an incentive for under-investment. Equally, a benchmark that is consistently overstated will provide both an incentive to over-invest and unearned revenue for the networks.

Either outcome is not in the long term interests of consumers.

Conclusions from this additional analysis

The current approach to setting benchmark levels of DRP is based on an historic approach that seemed to reflect actual outcomes in the times before the GFC. There has been no detailed review of the approach to assess whether the outcomes of that approach is still appropriate in post GFC times. Empirically, there is a strong indication that the approach does not yield an outcome that can be considered to be efficient.

It appears that the correlation that applied before the GFC between the actual costs for debt and the ACCC benchmark no longer applies. That this is the case

is supported by the AER decision to consult with stakeholders about the need for change to its previous approach.

The September 2010 decision of the Australian Competition Tribunal in relation to the ActewAGL appeal regarding debt risk premium, provides a strong indication that the ACT considers an alternative approach to setting the DRP could be implemented.

The input provided by the independent Oakvale Capital, whist focused on the cost premium for call options on corporate bonds, provides some valuable but damning insights into the use of the corporate bond market to set DRP.

The actual debt profile of regulated businesses can be identified from the financial reports issued by the businesses. Corporations Law requires that these financial reports must be factual. The AER has commented that using actual financial data can incorporate aspects which over/understate debt costs, but the MEU considers that assessments made over a number of time periods and a number of firms will provide a better indication of actual DRP levels than the AER's current practice.

Perhaps as an alternative to the current flawed approach, the AER could use "estimates based on historical averages [which is] one of the most common proxies for the debt risk premium" as suggested by the Competition Tribunal. Averaging the results of these from all energy network providers annual reports would provide an independent benchmark for DRP to be used as the surrogate for an efficient energy network provider DRP. After all, such an approach using actual recordable data is the concept behind total factor productivity.

Regardless of the method, it is incumbent on the AER to develop a new approach that provides a realistic benchmark DRP that achieves what used to apply before the GFC when its development of a benchmark reflected the actual costs of sourcing debt.

Addendum 1 (December 2010)

Issue 1 – Evidence of actual interest rates and DRP

Since writing and submitting the main analysis an MEU affiliate was provided with advice from the MCE SCO regarding the cost of debt provided by the Queensland Treasury Corporation to the Queensland government owned electricity distribution and transmission businesses Powerlink, Energex and Ergon.

This advice is as follows:

> "... with regard to financing arrangements for the Queensland distribution GOCs, it is true that they source all debt from Queensland Treasury Corporation other than non-recourse funding.
>
> However, the *GOC Act 1993* provides that the State does not guarantee any obligation incurred by a GOC, unless the liability is expressly undertaken on behalf of the State. Under this arrangement QTC operates the same as any other financial institution providing debt facilities to a client. It is essentially an intermediary financial organisation will enters the domestic and international markets to source the required funds.
>
> In accordance with the National Competition Policy principles, GOCs are expected to operate on the basis that they do not gain advantages or disadvantages by virtue of their Government ownership. One of the most significant advantages GOCs could enjoy is the ability to borrow funds at a lower rate than private sector competitors, on the basis of the State Government's credit strength. That is, the interest rate at which GOCs could borrow funds might reflect the creditworthiness of the State of Queensland rather than the stand-alone credit of the individual GOC. To the extent this resulted in a lower cost of capital, GOCs would derive a competitive advantage over private sector competitors.
>
> In order to prevent any such advantage, the Competition Principles Agreement requires a notional charge to be applied to the cost of debt for all GOCs. As a party to the Agreement, the Queensland Government has previously notified its GOCs of the application of a Competitive Neutrality Fee (CNF) to all borrowings and financial arrangements in the nature of debt obligations. The CNF is individually determined for each GOC in accordance with its stand alone credit rating and the market cost of debt, to ensure that the cost of funds paid by a GOC is equivalent to a similarly rated private sector entity."

This response supports the MEU contention that government owned electricity businesses pay an interest rate on the debt provided by the related treasury corporation at a rate considerably below the corporate bond rates used by AER in setting the WACCs.

There are five electricity entities that are "pure" network providers owned by governments – Powerlink, Energex and Ergon[11] in Queensland, TransGrid in NSW and Transend in Tasmania.

Of the remaining government owned electricity network businesses, EnergyAustralia, Integral Energy and Country Energy have significant retail functions and therefore analysis of debt premia for these entities would have to reflect that this retail function was a large part of their activities and would therefore distort the outcomes of any analysis.

The advice MEU received from MCE SCO was that the treasury corporations add a margin to the base cost they incur for funds (the Competitive Neutrality Fee) to reflect the debt risk premia that would be available to their fully related entities if they were required to access debt from the open market.

Reviewing the annual reports for these five businesses shows that each receives its debt funding from its related treasury corporation. Based on 2009/2010 financial year data from annual reports (ie after the global financial crisis) the actual financing cost and average debt for each (ie the arithmetic average of the debt levels at the start of the year and at the end) was used to calculate notional rate for debt. From this was deducted the average 10 Commonwealth bond yield (which averaged 5.50% for the financial year). The following table summarises the analysis.

Entity	Interest paid in 2009/10 $m	Average debt used in 2009/10 year $m	Effective interest rate %	Average 10 year bond yield % 2009/10	Notional DRP bp	AER DRP bp	Date of AER decision
Powerlink	196	3189	6.1	5.5	60	114	2007
Energex	225	3968	5.7	5.5	20	333	2010
Ergon	243	3826	6.4	5.5	90	333	2010
TransGrid	106	1501	7.1	5.5	160	349	2009
Transend	33	503	6.6	5.5	110	349	2009

[11] Ergon does carry out some retailing functions but the bulk of its activities are network provision

Consistently the treasury corporations have charged the government owned businesses notional DRP levels below 160 bp which reflects the DRP used historically in regulatory decisions. Equally the AER has calculated a DRP above 300 bp in recent years, although the DRP calculated in 2007 by the AER was consistent with the levels previously used by the ACCC and jurisdictional regulators, and still currently used by T-corps.

It is accepted that the financial values used in deriving the notional DRP might have some bias in them and therefore might not be fully comparable, but the magnitude of the difference between the actual interest charges and the AER calculated interest charges is so great as to clearly demonstrate there is a very large problem with the AER approach.

The analysis raises two basic questions:

1. Why T-corps have calculated lower DRPs than has AER even since the global financial crisis, bearing in mind that the T-corps are required under the Competition Principles Agreement, interest rates that reflect the open market cost of debt.
2. Why the AER has provided the entities with a DRP far in excess of the debt costs that the entities are actually incurring, accepting that the AER is required to allocate debt costs that an efficient entity would incur.

In its draft decision on the Victorian EDPR (page 505), the AER advised that it sought to provide a debt rate that "equate[d] to a commercial cost of debt". This is what the T-corps are required to do under the National Competition Policy.

The AER has advised that it has used the approach implied in the Rules and its own Statement of Regulatory Intent and this has resulted in the higher values for DRP than used historically. The T-corps have calculated market based interest rates, at values that are higher than the average 10 Commonwealth bond yield.

There is a basic difference between the market based cost calculated by three different T-corps and the way the AER has calculated the market based cost.

There is no doubt that the AER approach has resulted in a massive increase in unnecessary revenue (and hence increased profit) for the regulated entities from its approach in awarding such a large debt risk premium compared to what entities are actually incurring.

The AER has advised that its approach (using corporate bond rates) is the only method they have of independently assessing realistic debt costs. The same

can be said of the T-corps who have set actual interest rates considerably lower than the AER.

Issue 2 – Requirements of the National Electricity Law

The National Electricity Law requires in section 7A(5) that a revenue and pricing principle is:

> "A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates."

During the second reading speech (2007 when the Law was being debated, the Minister (Pat Conlon) stated in relation to this principle:

> "[This] principle ensures [that risks are appropriately compensated for when determining efficient revenues and prices] by requiring that prices and charges for the provision of regulated network services, allow for a return commensurate with the regulatory and commercial risks involved in providing the service to which that price or charge relates."

The various T-corps also have this obligation in that the funds they lend to the regulated entities, is lent at a rate reflecting the risks involved. The T-corps responsibilities go further in that under the Competition Principles Agreement they must lend at a market rate to their entities.

The T-corps must provide debt to the related regulated entities at market rates. It is therefore an obligation of the AER to recognise that the entities have been provided with debt which is provided at a rate which recognises the regulatory and commercial risks involved. In disregarding the rates at which the regulated entities have actually acquired their debt, the AER has totally ignored this relevant principle in the Law.

Issue 3 – The Market Objective

The Market Objective requires the promotion

> "...of efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to

price, quality, reliability and security of supply of electricity, and the reliability, safety and security of the national electricity system".

The second reading speech for the National Electricity Law (2005)[12] makes it clear that investment and use of electricity services will be efficient when services are supplied in the long run at least cost.

To provide a debt risk premium to a regulated entity at a level higher than the price at which a lender will lend to the entity in order to provide those services is not efficient in the terms that the Minister clarifies in his second reading speech.

For the AER to include for a higher cost of debt than an entity can actually source the debt in the open market is not efficient.

Conclusions from this additional analysis

1. There is a basic difference between what the AER considers is a market based DRP and what three different government treasury corporations consider is an appropriate debt premium to allow for their obligations to meet the requirements of the Competition Principles Agreement. The weight of evidence does not support the AER outcomes.
2. The AER is required by the National Electricity Law to ensure that the rate of return reflects the regulatory and commercial risks faced by the entity. This means that if lender is prepared to provide funds at a rate less than the AER might consider to be appropriate, then the AER must not provide a rate of return that is based on what the market considers to be efficient.
3. The Market Objective requires the AER to allow only efficient costs to provide the service as efficiency will deliver the least cost to consumers. If an entity can secure debt at a lower cost than that assessed by the AER, then to meet the Objective, the AER must use the actual costs, and not a higher cost.

[12] See appendix 1.2

The MEU original response (September 2010)

1. Preamble

In its Consultation Paper on Measuring the Debt Risk Premium (DRP) in relation to the Victorian Electricity Distribution Price Review (EDPR), the AER is attempting to establish a better mechanism to calculate an appropriate return on the debt portion of the weighted average cost of capital (WACC), as the current approach is quite flawed due to the absence of supportive data.

Under the building block approach to setting regulatory revenues, the revenue includes an amount derived from the amount of capital provided (the Regulatory Asset Base) multiplied by the weighted average cost of capital (WACC). Previously the AER had relied on estimates from data service providers such as Bloomberg and CBA Spectrum to develop the DRP to be used in the weighted average cost of capital formula which was then applied to capital provided by the regulated network service providers.

In its draft decision for the Victorian EDPR the AER observed (page 505):

> "The DRP (or debt margin) is added to the nominal risk-free rate to calculate the return on debt, which is an input for calculating the WACC. The DRP is the margin above the nominal risk-free rate that a debt holder in a benchmark efficient DNSP is likely to demand as a result of issuing debt to fund the business operations. **It is intended to equate to a commercial cost of debt**. (Emphasis added)
>
> The underlying criteria used by the AER in its SORI[13] in relation to the credit rating level were:
>
> - the need for the rate of return to be forward looking that is commensurate with prevailing conditions in the market for funds and the risk involved in providing regulated distribution services
> - the need for the return on debt to reflect the current cost of borrowings for comparable debt
> - the need for the credit rating level to be based on an efficient DNSP
> - the need to achieve an outcome that is consistent with the NEO

[13] Statement of Regulatory Intent

- the need for persuasive evidence before adopting a credit rating level that differs from the level that has previously been adopted for it"

The MEU agrees with the AER that in setting the debt risk premium (DRP), the outcome should "equate to a commercial cost of debt" reflecting the costs an efficient electricity network provider would incur.

It must be remembered that under the building block approach, the provision of debt is intended to be a "cost recovery element" (similar to opex) and not a source of profit – profit for the entity is recovered in the equity risk premium.

The allowance the AER should therefore include for DRP should reflect the actual costs an efficient provider would incur. This means that the AER should develop a methodology to reflect this need, ie the DRP should be that which an efficient benchmark provider would incur **in an efficient debt structure**.

2. Debt risk premium (DRP)

The debt risk premium is defined in the National Electricity Rules[14] (NER) as the premium required over the risk free rate (set as Commonwealth 10 year treasury bonds) to acquire debt and the AER, in its WACC decision in May 2009, determined that the debt benchmark would reflect a BBB+ credit rating.

The definition of DRP in the Rules is somewhat circular. The Rules define the risk free rate, and then define the DRP as the difference between the risk free rate and the:

> "...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."

Effectively the NER considers the return on debt (k_d) is to be the:

> "...the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a maturity equal to [10 year Commonwealth Bonds]."

2.1 DRP and the NEO

[14] See appendix 1.1 which includes the relevant excerpts from the NER

The National Electricity Objective requires the "efficient investment and efficient operation of" network services as these will provide, in the long term, the "least cost" to consumers[15]. It is not efficient to pay a regulated entity a higher return than is needed.

Efficiency implies, in relation to the DRP, that the AER must determine a mix of debt (a debt structure) that is efficient, and not be hidebound to assessing DRP based on using just one type of debt structure. As the NER does not define what corporate bonds are to be, then the AER must assess what the DRP should be in terms of the efficient mix of debt so that its measure of DRP is based on an efficient debt structure.

2.2 Efficient debt

The MEU considers that an efficient debt structure is a mix of bank borrowings and debt provided by the open market. However in May 2010, in its final decision on ETSA, the AER stated (clause 11.4.3.4) that

> "The AER notes that the DRP is set with regard to the Australian benchmark BBB+ corporate bond rate. The experience of two particular businesses' (SP AusNet and ETSA Utilities) recent capital raisings in isolation are not directly relevant but experience of individual businesses will be reflected in the fair value curve that is used to establish the benchmark DRP.
>
> The AER determines the benchmark DRP by averaging the yield on a 10–year BBB+ corporate bond over the averaging period of 18 business days between 29 March and 23 April 2010 (to match the period used for estimating the risk–free rate)."

What the AER is effectively stating is that actual observations of debt raised and debt structures used by exactly equivalent entities are not relevant, but might impact on the "fair value curve" used to calculate the DRP based on a range of other non-related entities seeking debt from the open market. Further the AER will only consider that debt acquired in the open market is applicable to setting DRP.

2.3 Debt is not just "bonds"

The NEO requires the development of the weighted average cost of capital (WACC) along with many other elements, to reflect an efficient rate of return. To achieve this, the NER Clause 6.5.2(b) considers that debt structure must equate that used by:

[15] See appendix 1.2 – second reading speech for NEL

> "... 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"

Clause 6.5.4 (e)(2) goes even further in requiring the AER to set the return on debt (that is the risk free rate plus the DRP) which:

> ".... reflect[s] the current cost of borrowings for comparable debt"

This clearly requires the AER to not only just consider the way the open market might price debt but to include other forms of debt an efficient provider would use in addition to debt sourced from the open market.

An efficient provider would acquire its debt on a portfolio basis. A portfolio would include debt from a mix of sources – from a number of banks, from the open market (often referred to as bonds), and internal sources (such as funds held against future liabilities including employee provisions, trade creditors, etc) – each type being addressed with a variety of term lengths and maturity dates. It would be inefficient (and unwise) for a business to have all debt maturing at the same time.

The AER approach of assuming that all debt will have a cost the same as that obtainable from the open market does not reflect efficient debt provision. From the observations of Credit Suisse noted in section 4 below, it would appear that the AER approach of basing the DRP on just the open market for debt, does not deliver the least cost to consumers, as would be expected from an efficient provider.

The ACCC in its final decision on ElectraNet revenue reset in 2003 confirms this view (page 25) when it stated:

> "The Commission understands that the interest margin associated with bank issued debt is generally lower than capital market interest margins. However, information on the debt margin associated with bank issued debt is generally not widely available. The Commission therefore considers that it is reasonable to use capital market data as the benchmark, which is biased in favour of the TNSP."

Under the National Electricity Code, the ACCC was permitted to include such explicit conservatism, but under the NER, the AER is required to apply a level for the WACC that is "economically efficient" and delivers "least cost" over the long term to consumers. This means that such explicit conservatism is not permitted.

3. Corporate bond rate

The NER does not define what corporate bonds are, but the AER has assumed that these are formal debt raisings issued on the open market by corporate entities, which are often issued under the title of "bonds".

A review of the definitions of "corporate" and "bonds" reveals that (Encarta dictionary[16]):

> "A Bond [finance] is a certificate issued by a government or company promising to pay back borrowed money at a fixed rate of interest on a specified date"

and

> "A Corporate Bond is a bond issued by a company rather than by a national or local government"

This definition of a corporate bond would reflect that any debt raised by a corporate entity if it entailed an agreement to pay back the borrowed money at a fixed rate of interest at a specified time would be a bond. It does not require these bonds to be tradable, although the AER seems to have restricted itself to assessing the DRP based only on tradable corporate bonds existing on the open market.

The NER does define that only Australian corporate bonds may be used in developing the DRP. This restricts the AER from following what is good debt practice – that an entity would have a portfolio of debt instruments, including debt provided by overseas entities. This restraint results in the AER having a much reduced or "thinner" market from which to develop its benchmark DRP. However such restraint does not prevent the AER from assessing DRP based on other debt instruments, providing that they are from an Australian source.

4. Previous AER and state regulatory determinations

In its submission to the AER in relation to the recent ETSA Utilities regulatory review, the MEU affiliate ECCSA observed that the DRP allowed by the AER in relation to its draft decision was excessive in light of the actual cost of debt

[16] Similar definitions are in Collins English Dictionary and Oxford Concise Dictionary

ETSA was incurring. The ECCSA provided evidence of a Credit Suisse report[17] where CS observed, based on the AER assessment of DRP of [sic] 427 bp[18]:

> "ETSA locked in 5, 7 and 10 year debt at an average margin of ~295bps in July - 09. On that basis ETSA will be making a ~130bps benefit than the regulated allowance reflecting its higher credit rating (A-) ... against the regulated allowance (BBB+, 10year)."

This observation provides commentary on a number of salient issues, viz

1. The AER calculation would have provided ETSA with an unearned benefit of 130 bp on the debt portion of the rate of return allowed. To put this into context, the AER would have allowed a WACC of nearly 80 bp higher than ETSA was incurring for its WACC, or nearly an additional $136m more in revenue over the 5 year regulatory period than ETSA would have actually incurred. Such a payment would not be efficient as it would not impact on the long term benefits to consumers.
2. The observation supported the ECCSA contention that an efficient provider would have a portfolio of debt instruments of varying durations
3. That a privately owned electricity network provider (as distinct from the government owned electricity network providers[19]) have a higher credit rating than BBB+ assumed by the AER in its WACC review.

4.1 Historical allowances for DRP

Prior to 2008, regulatory decisions by the national and state regulators had set a DRP in the range 90 to 150 basis points, with a median between 120-130 bp with a lowest value of 90 bp used in the TG final decision in 2005[20]. Since the beginning of 2008, DRPs have been calculated by the AER to be as high as 429 bp (ETSA DD 2010) and yet as recently as in the AER Final Decision on the WACC review in May 2009, the implied DRP is 160-180 bp.

Whilst the ACCC and state regulators also used CBASpectrum and Bloomberg data to develop the DRP, at that time the Australian bond market was more liquid and development of a DRP was more straight forward, although regulators did note that they had to manipulate the data in order to generate 10 year BBB+ bond data. However there has been significant

[17] Credit Suisse, Company Update1 December 2009, "Draft ETSA decision positive for SKI", Page 3. SKI is the ASX code for Spark Infrastructure, part owner with CKI of ETSA, Powercor and Citipower
[18] In fact the CS report is in error as the AER had set a value of 429 bp
[19] As the MEU pointed out to the AER it is response to the Issues Paper to the WACC review in 2008, the government owned electricity network providers have credit ratings of AA and AA+
[20] When it was the regulator, the ACCC used to assess financial indicators to identify if the WACC (amongst other elements) was set at an appropriate level

consistency in the generated values for the DRP over the decade from the first setting of DRP (at the "Great WACC Debate of '98" conducted by the ACCC and Victorian ORG) until 2008.

While it is accepted that the global financial crisis did have the impact of increasing the cost of debt, it must also be accepted that this impact will be relatively short lived, before the market reverts to more historical trends. To set the DRP for a 5 year period (or longer) based on effectively single point data[21], obviates the reality that over the period of the five year reset, the DRP will trend to its longer term values – this trend is already being seen in the falling values of DRP calculated by the AER.

Yet despite the observed downward trend, in the ETSA Utilities Final Decision in May 2010, the AER determined a DRP of 298bp yet one month later, in its draft decision for the Victorian EDPR, the AER set the DRP at 325 bp. This highlights that the data used by the AER is demonstrating extreme volatility and this can be attributable to the AER decision to use effectively single point data market to generate a DRP for the next five years.

That such a variation could occur in just on a month for the DPR to apply for the following 5 years is absurd and shows that the methodology is quite flawed. A well designed approach would demonstrate greater consistency in its outcomes.

5. Inaccuracies introduced by the AER approach

In addition to the fact that efficient acquisition of debt comes from a portfolio approach (types of debt, and varying maturities and durations), the AER approach fails in two other aspects

5.1 Scope of debt instruments

The single major cause of the inaccuracy of calculating the DRP is that the bulk of debt used in Australia by electricity network providers (and indeed most other businesses) is bank debt and not debt issued on the open market.

[21] The AER advised that for the ETSA Final Decision, it had used an averaging period of just 18 days, which in terms of the 5 year period the reset is to apply is just 1% of the time – effectively single point data

A review of the debt structure of the private electricity network businesses shows that bank debt is the major source of debt, with overseas bonds adding to it. The government owned electricity network businesses use bank debt and government bonds sourced from government owned investment vehicles such as Queensland Treasury Corporation. Few, if any, electricity network businesses have sourced any of their debt from the open market. This clearly implies that an efficient electricity network provider uses other sources of debt.

For the AER to set the DRP purely on the assumption that all debt will be sourced from bonds issued on the open market does not reflect what an efficient network provider would do, and introduces significant but unnecessary inaccuracies and conservatism.

5.2 Assessing the "corporate bond" market

Clause 6.5.2(e) requires the AER to use:

"...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."

The AER has admitted that it cannot comply with this clause as there is no "observed" bonds that meet these criteria either in relation to quantity, duration or rating. To achieve the outcome the AER has to **calculate** a bond yield (as distinct from observing a number of appropriate bonds) which complies with the requirement. This means the rule is unworkable and should therefore be changed.

The AER identifies in its decisions that there is a thinly traded market in Australia for debt issued on the open market. For example in its final decision on ETSA and again its draft decision on the Victorian EDPR, the AER has identified that the forecasts for BBB+ rated entities is so thin as to be non-existent, and it has to use other debt issued against other credit ratings, and then interpolate the values to reach BBB+ credit rating. Even then, the market is still thin, and the AER has used bonds raised businesses dissimilar to electricity network businesses with a different degree of non-diversifiable risk such as:

- Coles Myer (a consumer retailing business)
- Snowy Hydro (an electricity generator/retailer)
- GPT (a listed property trust)
- Wesfarmers (a coal miner, consumer products retailer)

- Santos (a gas producer)
- BBI (a diversified infrastructure owner of ports, gas transport, ship loading, etc)

Of these, none had sought bonds over more than a 6 year period.

What is salient is that no electricity network providers are listed as raising debt in this way, yet despite the NER requiring the WACC to be based on:

"...a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the *distribution* business of the provider"

None of the entities used to provide the benchmark bond meet this very basic requirement. If there is no enterprise of a similar nature and risk to an electricity network provider, then the AER must find another approach to setting the DRP.

The trade in, and debt raisings from, corporate bonds in Australia has been greatly overshadowed by more traditional fund raisings by Australian businesses such as bank debt and equity raisings. This has caused the thin market in the "corporate bond" financial instruments.

This means that the AER has to find alternative ways of developing an efficient DRP for use in its WACC development.

5.3 Duration of the "open market" debt provision

None of the data from the open market has a debt maturity of more than 6 years (although the AER has found one – APT which issued 10 year bonds but at a different credit rating – yet the NER requires the AER to set a debt duration matching the risk free rate duration of 10 year Commonwealth bonds.

To meet this requirement the AER has extrapolated the shorter period debt to match the 10 year debt duration required. This introduces unnecessary risk.

Because of this introduced risk of extrapolation, the NER provides guidance to minimise risk where actual data is not available. For instance, when developing the risk free rate, the NER states that interpolation must be used. For example NER 6.5.2(d) requires that if there is no actual data available when setting the risk free rate:

"...the *AER* must ... determine the nominal risk free rate for the *regulatory control period* by interpolating on a straight line basis from the two Commonwealth Government bonds closest to the 10 year term and which also straddle the 10 year expiry date."

This implies that interpolation is acceptable, but extrapolation is seen as less acceptable due to the risks implicit in its application.

5.4 Volatility of outcomes

Because of the approach used by the AER, this has resulted in a significant amount of volatility and this volatility must have a negative impact on both consumers and the network owners.

The regulatory environment should provide participants with a high level of certainty and consistency over time. If it does not, then there is a negative impact on investment, leading to greater risks for consumers. As noted in section 4.4 above, up until 2008, regulators have been setting the DRP in the range of 90 bp to 150 bp, with a median value well below 150 bp. The global financial crisis has caused the DRP to rise as lending was constrained, but in recent times, borrowing has become much easier. Equally the global financial crisis has resulted in very low (even negative) DRP values in most first world countries, as interest rates have been slashed in an endeavour to encourage investment.

Because of a very illiquid market and thin trading in Australia for bonds, the volatility of DRP calculated from tradable corporate bonds has shown excessive volatility, especially in the wake of the global financial crisis.

The AER must develop an approach which reduces the volatility in forecasts of future movements. One of the main aspects of the AER approach is that it uses a short averaging period of time to set the forward estimates of the various variables used by it. To all intents, this means that the data is based on almost a single point in time. This introduces significant inaccuracy. For example the AER performance in forecasting the forward exchange rate has been demonstrably wrong and, with the benefit of hindsight, show gross errors were made in the forecasts[22]. Errors such as these add significantly to the risk participants have to manage.

[22] See appendix 2 exhibiting the errors in the forecasts of the $US/$A exchange rate errors used in assessing future materials costs. The purpose of this example, is not to deride the AER ability to forecast, but to highlight that in attempting to be more accurate and accommodate future changes, the outcome is exactly the opposite – that greater error is introduced by attempting to be more accurate. Because of this the MEU considers that greater certainty and consistency is achieved by using longer term averages, rather than attempting to extrapolate from observations set in a short time frame.

The AER, in attempting to be "accurate" in its forecasts, has introduced major concerns for all. The problem with using data from effectively a single point in time is that it eliminates all of the moderating effects that comes from the "smoothing" effects of time.

In developing the market risk premium (MRP) the AER has assessed MRP over the long term – many decades in fact. If the AER attempted to use a forward looking MRP based on such a short averaging duration that it is effectively a single point in time, then the MRP would swing violently from large positives to large negatives over very short periods, making a mockery of the WACC developed using these swings. The AER has recognised that investor sentiment is fickle and causes large short term movements in MRP. To overcome this variability, the AER has sensibly used time to smooth the MRP, so that the value used does not vary significantly decade on decade.

The same issues (such as investor sentiment in valuing corporate bonds) affect the DRP and cause significant short term movements such as occurred during the global financial crisis. The same logic used to smooth the MRP should apply to the setting of the DRP

6. Summary

The AER approach to setting DRP does not comply with the NER or the NEO. It does not reflect efficient DRP levels as it excludes the (lower cost) source of debt most commonly used by electricity network businesses. As the approach used by the AER is acknowledged as being conservative (and therefore a higher cost than needed) it does not deliver the least cost to consumers. Therefore the AER must develop a methodology for setting DRP which reflects the major sources of debt used by an efficient notional network provider.

In all the recent AER assessments of DRP consistency and certainty over the long term have been ignored. Regulation should lead to consistent and certain outcomes and not provide wild fluctuations in values. In this regard large fluctuations increase risk and increased risk increases costs. Implicitly, fluctuations increase costs to consumers, thereby not delivering the least cost as is expected by economic efficiency.

The risk free rate is set on a 10 year term and the DRP is intended to mirror the term of the risk free rate. However achievement of this is not possible because there is:

- No extrinsic market data that provides a clear value for DRP that can be derived from using "observable" Australian 10 year corporate bonds. This means that there is a need to extrapolate from shorter term bonds. The NER implies that where data is not explicitly provided it should only be interpolated and not extrapolated.
- Almost no market for corporate bonds for businesses of similar "...nature and degree of non-diversifiable risk ..." to electricity network businesses.
- No strong and liquid market for any corporate bonds in Australia. If there is insufficient liquidity in a market, this introduces risk and risk increases costs to consumers.

This makes the requirement in the Rules unworkable as the wording of the Rules (especially clause 6.5.4(e) as interpreted by the AER contradicts the achievement of the NEO.

7. Conclusions

The AER has up to now has based its approach to setting DRP on the assumption that the DRP is the difference between the yield of Commonwealth treasury 10 year bonds and the yield of BBB+ Australian corporate bonds of 10 year duration. To obtain the yield of corporate bonds it has used published data from CBASpectrum and Bloomberg and extrapolated the data for duration and interpolated the data to get the correct credit rating.

In fact this approach does not comply with the Objective and the Rules as it:

- Does not incorporate the DRP that applies to the bulk of the debt (bank debt) acquired by electricity network businesses
- Has only a small population of bonds to work with reducing the diversifying benefit of a large population, thereby increasing risk (and therefore cost)
- Does not comply with the requirement of comprised of businesses with similarity to electricity network businesses, because:
    - Those bonds that are listed, few reflect the similar nature and risk to electricity network businesses,
    - Those very few bonds that might be applicable are mostly not as long as 10 years causing the need to extrapolate, increasing risk

- Those even fewer bonds that might be applicable in terms of similarity and duration do not have the same credit rating as is stipulated, creating the need to interpolate from those of a different credit rating.

Despite the AER misgivings about using actual experience of the electricity network businesses, it appears to the MEU that by not doing so, the AER is not recognising the requirement of the Objective to reflect economic efficiency in setting the WACC. Economic efficiency requires that the allowance the AER is to include for DRP should reflect the actual costs an efficient provider would incur.

This means that the AER should develop a methodology to reflect this need, ie the DRP should be that which an efficient benchmark provider would incur for its debt structure and not rely data which is inappropriate, insufficient and not reflective of actuality.

To the structural difficulties identified by attempting to follow the rules, are added the fact that electricity network owners do not source the bulk of their debt from the open market, but obtain it from lower cost sources. Persisting with the current approach means that consumers will be required to pay for an inefficient and not “least cost” outcome. This is contrary to the NEO which requires efficient costs only to be charged to consumers and that the outcome should be the least cost.

Overall, the Rules are inconsistent with the NEO and, further, the AER has identified that the Rules cannot be explicitly complied with. This means that the AER should seek a rule change to make their task one which will deliver a DRP which reflects the actuality of the cost of debt as it applies to the regulated networks.

Arising from this, the MEU would recommend a number of specific aspects the AER should consider in seeking a rule change:

1. The fact that all the electricity network owners raise debt from banks and very little from public raisings in the open markets
2. The fact that some of the privately owned electricity network owners have raised debt on the overseas bond markets (and swapped this back into $A)
3. The fact that the large proportion of all electricity networks are government owned and would have a lower cost of debt than would be calculated from corporate bond markets

Whilst the AER has focused its review on the need for an outcome for the Victorian EDPR, there is the long term issue of trying to use a small and illiquid bond market to generate an accurate DRP which needs to be addressed. It is simply inadequate for the AER to try and reach a reasonable reflective and efficient DRP from the Australian tradable corporate bond market.

8. Specific questions for stakeholders

> 1. Given the paucity of available data, the fact that CBASpectrum recently ceased publication of its fair yield curve, the characteristics of the recently issued APT bond and the Tribunal's recent decision on the DRP issue, the AER intends to examine the yields from the recently issued APT bond and those derived from Bloomberg in terms of their appropriateness in estimating the DRP for the Victorian DNSPs' distribution determinations. Please provide comments on the AER's intended process.

The MEU considers that the AER needs to develop a new approach to setting DRP based on what an efficient network provider would do, rather than relying on data that is inappropriate, insufficient and not reflective of what an efficient provider would do.

The MEU considers an efficient provider would source the bulk of its debt from bank loans as this is the most economically efficient approach to sourcing debt.

> 2. Given the uncertainty in determining whether yields from Bloomberg or from the APT bond are more appropriate in setting the DRP, the AER intends to take an average of the two. Please provide comments on the AER's intended methodology.

The MEU notes that Bloomberg data is of the wrong duration and of the wrong credit rating, and needs manipulation to attempt to make it fit the need.

Using the APT bonds is not appropriate, as the credit rating level is incorrect, and much of APT revenue is from non-regulated sources, whereas the electricity networks are all regulated.. This means that APT is not a business of similar "...nature and degree of non-diversifiable risk ..." to electricity network businesses.

To take an average of these two sources to generate a DRP is not appropriate.

A more appropriate outcome is to use an approach which reflects economic efficiency, such as sourcing debt from banks, as the electricity network providers do for most of their debt.

3. Do stakeholders agree with the AER's conclusions regarding information from other sources?

The MEU does not agree with the AER conclusions. The MEU considers that the AER approach does not deliver an economically efficient setting for DRP as an efficient network provider would source the bulk of its debt from bank loans. Additionally an efficient provider would source some debt from internal sources and might obtain some debt as Australian and overseas bonds, although (because of the paucity of similar corporate bonds) this is not a preferred option by most electricity network businesses.

As most of the networks are government owned, much of the debt used by electricity networks is effectively sourced from bank debt and government bonds. The DRP on these government bonds is readily calculable for both duration and credit rating.

4. Are there other sources of relevant information the AER has not considered above?

The MEU considers that the AER should source information of DRP from banks which are the prime lenders to electricity network businesses, and from the financial statements of electricity network providers.

Financial statements from the businesses will provide quite accurate indications of what the cost of debt is to businesses with a similar nature and non-diversifiable risk. If the AER uses the outcomes from analysing the financial statements of all the electricity network businesses, it will have a much greater population of data to work with than just the proposed two sources (Bloomberg and APT).

The approach of using data from multiple network sources has some similarities with the Total Factor Productivity (TFP) approach currently under review by the AEMC.

5. Do stakeholders consider it necessary to use an alternative method for estimating the DRP during days in averaging periods where APT data are not available?

The MEU considers that the approach of using a short period in time to set DRP creates the potential for excessive volatility. Just as the AER considers that a long term average for MRP is a more appropriate approach than having the MRP assessed over short periods, the MEU considers the same long term averaging for setting DRP provides a lower risk outcome for all, with consistency and certainty being key drivers for setting appropriate and cost reflective values.

If the MEU approach is used, then an answer to question 5 is not needed.

6. Do stakeholders consider there is justification for making adjustments to the APT bond data to generate information during days where bond data are not independently available?

See answer to question 5.

Appendix 1

A1.1. National Electricity Rules – excerpts

Weighted average cost of capital

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:

kd is the return on debt and is calculated as:

rf + DRP

where:

rf is the nominal risk free rate for the *regulatory control period* determined in accordance with paragraph (c);

DRP is the debt risk premium for the *regulatory control period* determined in accordance with paragraph (e);

Meaning of nominal risk free rate

6.5.2 (c) 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*.

6.5.2 (d) If there are no Commonwealth Government bonds with a maturity of 10 years on any day in the period referred to in paragraph (c)(2), the *AER* must (unless some different provision is made by a relevant *statement of regulatory intent*) determine the nominal risk free rate for the *regulatory control period* by interpolating on a straight line basis from the two Commonwealth Government bonds closest to the 10 year term and which also straddle the 10 year expiry date.

Meaning of debt risk premium

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.

Review of rate of return

6.5.4 (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

(4) 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.

A1.2 Interpretation of efficiency in NER

Second Reading Speech on NEL 2005[23]

"The market objective is an economic concept and should be interpreted as such. For example, **investment in and use of electricity services will be efficient when services are supplied in the long run at least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities.

The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximised. If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximised." (emphasis added)

[23] Hansard SA HOUSE OF ASSEMBLY Wednesday 9 February 2005 page 1452

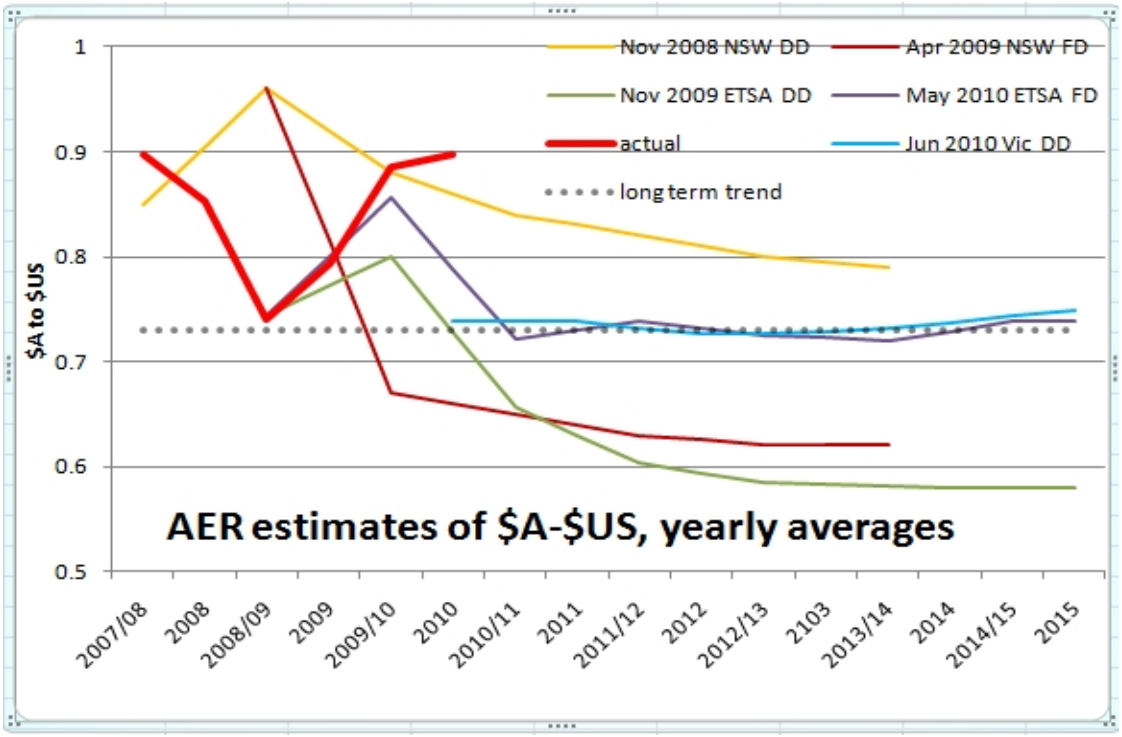
Appendix 2 –
A2. Problems with forecast variability
Example: US to Australian dollar exchange rates

The MEU has assessed the negative impacts arising from the AER approach to setting adjustments to forecast opex and capex to reflect potential moves in materials and labour costs.

Prior to 2007, regulators set opex and capex and assumed that future movements in the costs of material and labour would be accommodated by the application of inflation as measured by the consumer price index (CPI). In an attempt to be more accurate in ensuring forecast amounts would reflect actual future costs, the AER has introduced a methodology which forecasts future movements in material and labour indices.

The only certainty about these forecasts is that they will be wrong.

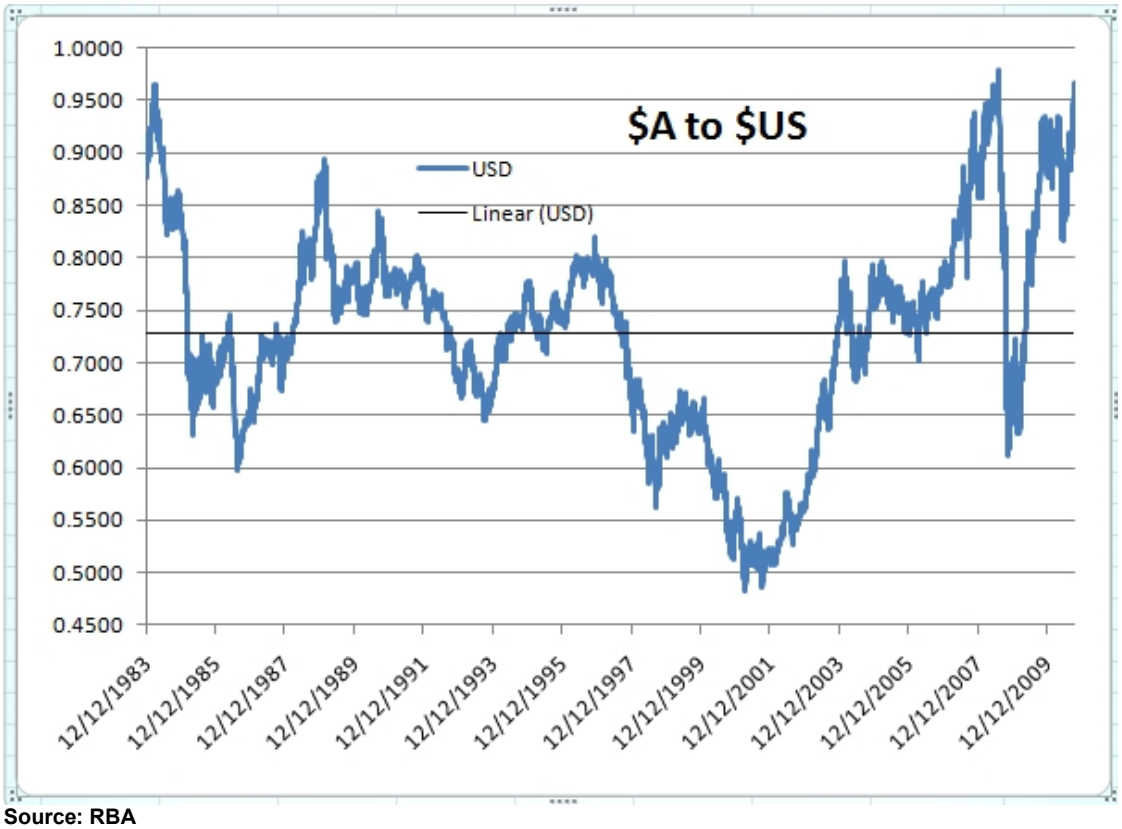
To exemplify the MEU concern, it points to the issue of exchange rate variation. In each regulatory decision the AER has proposed adjustments to material costs which are forecast in $US, such as oil, steel, zinc and copper. The following graph plots the actual movement in the $US and the $A against the forecasts used by the AER in various draft and final decisions. This shows that there has been significant error between the forecasts and the actual movement to date, and massive variation in the forecasts.



Source: AER decisions

The long term trend for the exchange rate is the linear calculation based on the historical movements in the $A since it was floated in 1983. This is shown in the next graph.

This shows that the longest period the $A has been below $US0.65 was just over 3 years, but the AER considered that this could happen for a longer period (ETSA DD and NSW FD) i the current 5 year outlook period. In fact earlier forecasts by the AER of what the exchange rate would be now were about 0.65, whereas in actuality it is approaching parity.



Source: RBA

The purpose of this example, is not to deride the AER ability to forecast, but to highlight that in attempting to be more accurate and accommodate future changes, the outcome is exactly the opposite – that greater error is introduced by attempting to be more accurate. Because of this the MEU considers that greater certainty and consistency is achieved by using longer term averages as the basis for inflation, rather than attempting to extrapolate from observations set in a short time frame.