

WA Economic Regulation Authority

2012/13-2016/17 PRICE REVIEW

ELECTRICITY DISTRIBUTION and TRANSMISSION SERVICES

in the

WESTERN POWER

SOUTH WESTERN INTERCONNECTED SYSTEM

Response to the Application

by

Western Australia Major Energy Users

November 2011

Assistance in preparing this submission by the Western Australia Major Energy Users (WAMEU) was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

The content and conclusions reached are the work of the WAMEU and its consultants.

Contents	Page
Executive Summary	3
1. Introduction to the WAMEU	6
2. An overview of the WP application	12
3. Forecasts	17
4. Setting the RAB and depreciation	28
5. Weighted Average Cost of Capital (WACC)	33
6. Capital Expenditure	47
7. Operating Expenditure	66
8. Service standards and incentives	81
9. Tariff structure	89
Attachments	
1. Measuring debt risk premium	90

Executive Summary

This submission has been prepared by a coalition of several large energy users in Western Australia whose businesses are significantly affected by electricity costs, reliability, quality and security. The Western Australia Major Energy Users (WAMEU) welcomes the opportunity to provide comments on the application by Western Power (WP) to the Economic Regulation Authority's 2012/13-2016/17 price review of WP services.

There is little doubt that the WP application is an ambit claim. The outworkings of the application is that average tariffs will increase dramatically above those currently in place. In this regard, it is important to note that the current tariffs are already probably overstated by some 23%, as WP has not expended all of its allowances for capex and opex, and the cost of capital faced by WP is considerably less than the ERA allowed it for AA2.

WAMEU strongly urges the ERA to undertake its own comparative analysis of all of Western Power's claims, and ultimately, to reject WP's proposed network tariffs for this review period.

An overview of this submission

WP has proposed what can only be described as totally unjustifiable increases in network charges of an average of about 50% for AA3 above the tariff that applies in 2010/11.

These increases are primarily a product of:-

- An increase of about 30% in operational expenditure
- An increase of about 50% in capital expenditure
- An increase in the weighted cost of capital of some 200-300 basis points

WAMEU contends that:

- Operational expenditure should remain at current levels of \$435m pa;
- Western Power's claims for capital expenditure are probably 50% too high, as the forecasts for demand and consumption do not support such large increases;

- The increase in the weighted cost of capital (WACC) is not justified for WP, especially in terms of the cost of debt which is probably 400 bp too high when assessed against the actual cost of debt. The WAMEU proposes that the following parameters be adopted by the ERA:

Parameter	Value range	WAMEU recommended set point
Risk free rate	Based on the nominal 10 year CGS	
Inflation	Using RBA current data, then trend to 2-3% target range	2.5%
Debt premium	Based on cost from WATC	20 bp
Gearing	To reflect actual gearing	80%
Equity premium	Within the range 5-6%	600 bp
Equity beta	Within the range 0.5-0.80	0.70
Gamma	As set by ACT	0.25
Equity raising	No allowance except where equity is actually raised externally	
Debt raising	No cost as debt facility is already in place from WATC	

- Western Power should be required to exclude from the regulatory asset base any historical capital contributions made by other parties and other gifted assets.
- WP proposes a reduced service performance in return for this massive increase in tariffs and proposes to reduce the measures of service performance.

Overall, the proposed new WP average tariffs when rated on a \$/MWh basis, would result in the electricity transportation tariffs for combined network services being far in excess of tariffs in other Australian jurisdictions. The resultant average tariff by the end of the regulatory period will reach about \$180/MWh, which is well above the benchmark tariffs of other network providers. Both WP transmission and distribution networks compare very unfavourably on a cost basis with similar network businesses in Australian jurisdictions.

WAMEU disagrees that because WP is an integrated business incorporating electricity transmission and distribution transport its performance cannot be accurately assessed and argues that because of this integration (with the benefit

of shared administration and economies of scale) it should be more efficient (and therefore lower cost) than segregated businesses against which it is compared.

WAMEU does not agree that because of the density and geographical coverage SWIN is unique and cannot be compared with other jurisdictions. We would point out that the networks in South Australia (ETSA Utilities) and North Queensland (Ergon) probably have a more challenging environment to operate in than that of the SWIN.

When compared with the very large proposed increases in revenue sought by WP, the WAMEU submission proposes more balanced recommendations that provide for a reliable, sustainable, quality electricity network with affordable and economically efficient access costs.

1. Introduction

1.1 About the WAMEU

The Western Australia Major Energy Users (WAMEU) represents a coalition of major energy consumers operating in the Western Australia Electricity Market (WEM). The WAMEU comprises the following companies, including Cockburn Cement, Tiwest, Doral, Boral, Burswood Entertainment Complex, Laminex Group, Perron Group, Iluka Resources and Millennium Organic Chemicals.

The aggregate electricity usage by the members of WAMEU shows that they consume a significant proportion of the electricity generated in WA. Therefore, they are highly dependent on the following transport networks to deliver efficiently the electricity so essential to their operations. The members are also heavily dependent on local suppliers of equipment and services, and therefore have an obligation to represent the views of these local suppliers. With this in mind, the WAMEU requests that the ERA take the views expressed herein as also representing those of smaller electricity using facilities that may not have the opportunity or resources to directly participate in this pricing review.

The companies represented by the WAMEU (and their suppliers) have identified that they have an interest in the **efficient cost** of the energy networks services as this comprises a large cost element in their electricity and gas bills.

Electricity is an essential source of energy required by each member company in order to maintain operations. A failure in the supply of electricity will cause every business affected to cease production, and WAMEU members' experiences are no different, and thus the **reliable supply** of electricity is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of electricity supplies has become increasingly important with the focus on the performance of the distribution business, because it directly controls the quality of electricity delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) by even small amounts now has the ability to shut down critical elements of many production processes and operations. Thus member companies have

become increasingly more dependent on the quality of electricity services supplied.

Each of the businesses represented by WAMEU has invested considerable capital in establishing their operations and in order that they can recover the capital costs invested, long-term **sustainability** of energy supplies is required. If sustainable supplies of electricity are not available into the future, these investments will have little value.

Accordingly, WAMEU members are keen to address the issues that impact on the **efficient cost, reliability, quality** and the long term **sustainability** of their electricity supplies.

The members of WAMEU acknowledge that energy transport plays a pivotal role in the electricity market. The transport networks, both developed and proposed in this application, allow consumers to identify the optimum location for investment in its facilities, and also for generators to locate where they can provide the **sustainable, reliable and high quality supplies at lowest (efficient) cost** for consumers. WAMEU members recognise that the cost of providing the transport systems are a significant element of the total cost of delivered electricity, and careful consideration must be given to all the elements comprising the networks.

1.2 A review of the regulatory changes occurring

In October 2011, the AEMC released a number of rule changes that the AER proposed for operation of the NEM and the Gas market. Many of the network regulatory features of the WEM are similar to those in the NEM and follow the changes in the rules made in 2006 (transmission) and 2007 (distribution).

In relation to this regulatory review by the ERA of Western Power networks, the rule changes proposed for the NEM by the AER would have similar application to this review of WP. In particular, the AER has highlighted a number of specific areas that the ERA should take note of, because the outcomes of the WP performance in relation to Access Arrangement for period two (AA2) highlight the same concerns that the AER has encountered. In particular, the AER has commented:

- The propose/respond model used by the AER (and also by ERA) has resulted in considerable additional costs for consumers that is not warranted. The AER considers that the propose/respond model of regulation results in allowances consistently being at the high end of an acceptable range, providing the regulated firms with a

greater allowance than is seen as efficient. The AER proposes that the regulator should be required to determine the efficient allowance. As the propose/respond model impacts the allowed capex, the allowed opex, the WACC to be used and the service performance targets, the outcome for consumers has been a substantially higher cost level than the efficient costs that are needed to provide the service

- In setting the allowed capex, allowed opex and service performance targets, the new AER proposal would place more weight on past performance as a guide as to the efficient levels, with greater emphasis on identifying step changes from the past and a requirement to continuously seek improvement of performance. Incentives provided to encourage continuous improvement are an essential part of the AER proposal.
- The AER has specifically identified that identifying the debt risk premium over the past 3-4 years has led to the conclusion that the allowance for DRP is greatly in excess of the actual costs network service providers incur, especially those owned by governments where the service providers have access to debt at rates well below commercial debt. This has resulted in recognition that the WACC allowances have been significantly inflated above what is considered to be appropriate for such low risk businesses.

As the performance of WP over AA2 shows a significant underspend on both capex and opex (with a resultant transfer of wealth for consumers to WP) the WAMEU strongly suggests that the ERA should take a much more firm approach to setting the allowances for WP in AA3 than it did with AA2, and apply a more rigorous approach (similar to that identified and proposed by the AER) to carry out the new AA3 review.

1.3 A review of a key aspect of AA2

In the current access arrangement period (AA2), the outcomes for WP have been extremely profitable.

WP has underspent on both the opex and capex allowances provided by the ERA by some considerable margin. The effect of the under-run on capex was about \$240m over the three years (assuming the forecast for 2011/12 is accurate). The impact of this underspend in capital expenditure is that the WP has received some \$50m in return of capital that it never spent. The underspend in opex was also considerable, amounting to some \$145m over the three years.

In addition, WP also received its largest single benefit because of the decision on the cost of debt and its high gearing level. WP was able to access debt at a fraction of the allowance ERA provided in the WACC calculation, and this effect was further enhanced by a much higher gearing level awarded by ERA.

In its annual reports for 2009, 2010 and 2011, WP incurred average debt costs of 5.2%, 5.0% and 5.5% respectively compared to its debt liabilities, with all the debt being provided by the government. Gearing (debt to debt plus equity) was 81%, 83% and 83% respectively, implying that the average debt cost was 5.25% with a gearing of >80%¹. In contrast, in its AA2 decision, ERA allowed a debt rate of some 913 basis points, at a gearing rate of 60%. The net effect of these two differences was to reduce WP's actual WACC by some 240-250 basis points, so that the ERA decision caused consumers to pay a premium of some \$270m for the provision of debt – a cost consumers never incurred. This issue, of government owned corporations paying less for their borrowings than the cost allowed by a regulator, is addressed in detail in attachment 1 to this submission².

In summary, WP was able to enhance its profitability considerably due to the combined effects of less capex spent, a higher cost of return of capital due to the lower capex spent, less opex spent and a considerably lower actual WACC than that allowed by the ERA. **This overall increase in profitability for WP in AA2 is of the order of some \$700m over the three years of AA2³.**

In its final decision on AA2, ERA expected that WP would receive some \$3000m in revenue. The additional \$700m in revenue that WP actually received, would have enhanced the allowed profitability of WP. In effect, WP could still have provided the same service to the SWIN customers with prices set 23% lower than they actually were under the ERA decision.

In a number of reports into the cost of electricity networks services carried out in the past 12 months (eg Garnaut's update #8, the Parry/Duffy report for the NSW government and the IPART report into NSW network costs)

¹ ERA assumed a notional gearing of 60% is required to achieve a credit rating of BBB+. In fact, all debt used by WP came from the WA government, which has a AAA credit rating

² This is the amended response the Major Energy Users provided to the AER in March 2010 in regard to the cost of debt, with specific reference to that provided by government treasury corporations to government owned corporations.

³ Despite WP actually using less capex and opex than it was allowed by ERA, it is acknowledged that WP does propose to return a relatively small proportion of the over-recovery it received. In table 77, it calculates that it will \$43.6m as a result of the investment adjustment mechanism.

there is a consistent theme that electricity network investment expenditures allowed by regulators have been the significant contributors to rising electricity prices and energy bills in recent years. The above assessment of the WP enhanced profitability only serves to accentuate this continuing theme.

The ERA has a responsibility to ensure that the costs incurred by consumers are efficient. There is no doubt that the price permitted WP by the ERA in AA2 are well in excess of efficient levels and action is required by ERA to ensure that the costs for the next 5 years are indeed efficient and do not include for “unearned” profits by WP.

1.4 Regulatory conservatism

In its submission to the ERA regarding the WP application for AA2, the WAMEU provided its views on the issue of cumulative conservatism, as allowed by regulators. The WAMEU commented that throughout the development of a regulatory revenue allowance, conservatism is applied at every step of the analysis. The outcome for consumers is that they pay considerably over the efficient level for the provision of the services. Regulators also note that conservatism is appropriate because the cost to consumers of a failure of the network will exceed any bias they may receive through conservatism.

The WAMEU does not disagree that the loss of service will cause a greater cost to them than a small premium on price. The issue is that the premium must be small. As seen in section 1.3 above, a premium of 23% was what was achieved by WP through excessive conservatism by the ERA in AA2.

What is obvious from the performance of WP through AA2, is that there has been considerable under-run on capex and opex without any impairment of service. In fact, a review of the service standards achieved implies that service performance was actually enhanced despite the lower capex and opex allowances used by WP!

The WAMEU considers that the ERA should provide an allowance that is as close to the efficient level as is possible and then add an allowance for conservatism. Further, the WAMEU considers that the actual performance of WP during AA1 and AA2 should be the basis for setting future allowances. The WAMEU considers that self benchmarking, especially where there is an incentive on the network owner to minimise its costs, provides the closest assessment of what is the efficient level of cost to provide a service. Unfortunately, regulators are all too open to the

arguments of the network owners who can (and do) advise that any less provision of cost than that asked for, will result in a failure of supply.

It is only by this approach of using self benchmarking will the ERA will avoid incorporating too great a level of conservatism into its final decision.

2. An overview of the WP application

Against the background of very substantial underspending in WP's, allowed capex and opex and the market increase in profitability in the current AA period, the application from Western Power (WP) to significantly increase network charges for both transmission and distribution in the next AA period is difficult to comprehend:

- A step increase of 37% in revenue from 2011/12 to 2012/13.
- Real revenue increases thereafter of 15% per year for the following four years.

The factors identified by WP for the very substantial increase in tariffs are claimed to be related to:-

- An increase in actual average annual opex of more than 25% notwithstanding the fact that in AA2, ERA had allowed higher opex than was actually used.
- An increase in actual average annual capex in AA2 of more than 35%, despite the fact that in AA2 ERA had allowed higher capex than was actually used.
- An increase in real pretax WACC by some 206 basis points.

The substantial increase in capex claimed in AA2 was supposedly to address an expected growth in peak demand of just less than 4%, in fact the growth in demand barely exceeded 3% pa. Despite this apparently low actual growth in AA2, WP is forecasting demand growth in AA3 which effectively continues this historical average rate over the next five years.

Notwithstanding the substantially increased opex and capex claims, WP has proposed that its benchmarks for service performance should be 97.5% of the five year historical average actual performance. This effectively means that WP is proposing a reduction in service performance.

WP advises that because of its large capex program they will have to accommodate a reduction in service to reflect the greater amount of planned outages that will occur under the enhanced capex program. Effectively this means that consumers are being asked to pay considerably more for a reduced service performance in the AA3 period, after having been asked to pay more for expenditure claims in the AA2 period, a substantial part of which was never spent!

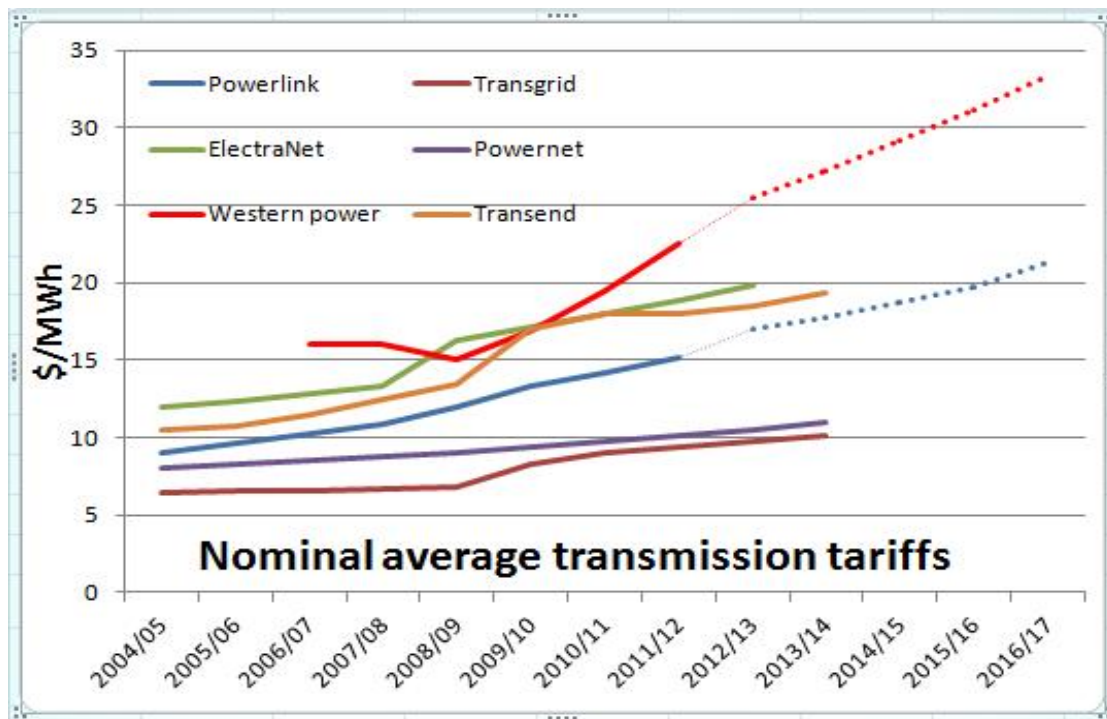
WP has proposed to operate under a revenue cap for both transmission and distribution services. The benefit of this for WP is that it is insulated from any impact of changing demand that might come from errors in its forecasts. As seen in AA2, there was significantly smaller growth in demand than WP forecast. In AA3, WP is forecasting demand growth much the same as the AA2 actual growth but has sought an enhanced capex program to reflect a higher growth scenario. In the event that demand growth is smaller, WP will still receive the same revenue based on the higher growth forecast, even if the growth does not eventuate. Equally, if demand growth exceeds that forecast, WP will not gain any additional revenue. Based on historical demand growth, it is extremely unlikely that the growth in demand will exceed the WP forecast, but it is more probable that the growth in demand will be less.

This is a risk that WP is passing to consumers but which is biased heavily in favour of WP.

2.1 The impact of the transmission program

WP is seeking a significant increase to its notional average transmission tariffs for AA3 above those applying in AA2.

Transmission charges increased significantly in AA2 and the application for AA3 will more than double the nominal transmission charges by 2016/17 above the average notional tariff of 2008/09, as shown in the following chart, which also show indicative average transmission tariffs in other Australian jurisdictions. .



Source: Regulatory decisions, WP AAI, Powerlink application 2011

This chart shows clearly that the WP transmission tariffs were the highest in the country by 2010/11 and will further significantly increase above this already high base.

Each of the other transmission businesses provides reasons why its transmission tariffs are not comparable to those in other jurisdictions. This examination on a comparative basis, implies that the SWIN is unlike any other transmission network in the country, apparently serving a more sparse customer base than Powerlink in Queensland, having a lower load factor than ElectraNet in South Australia and a more diverse location of generation plants than Transend in Tasmania.

It is feasible, however, that the SWIN could be likened to the transmission services in SA, Queensland and Tasmania, and up to halfway through AA2, the average transmission tariff is clearly similar to those in those jurisdictions. This would be especially relevant if the WP tariffs were to be reduced by the over-recovery WP received in AA2; ie the tariffs were to be reduced by the 23% over-recovery noted in section 1.3 above.

However, it must also be noted that WP is an integrated transmission/distribution business and this should provide significant synergy savings compared to the other standalone transmission firms. Despite this, WP transmission is still in the highest cost transmission

businesses on a comparative basis. A review of the consumer comments regarding the allowed revenues granted ElectraNet, Powerlink and Transend, shows that consumers already consider these costs are already too high, especially when compared to prices that applied earlier in the decade.

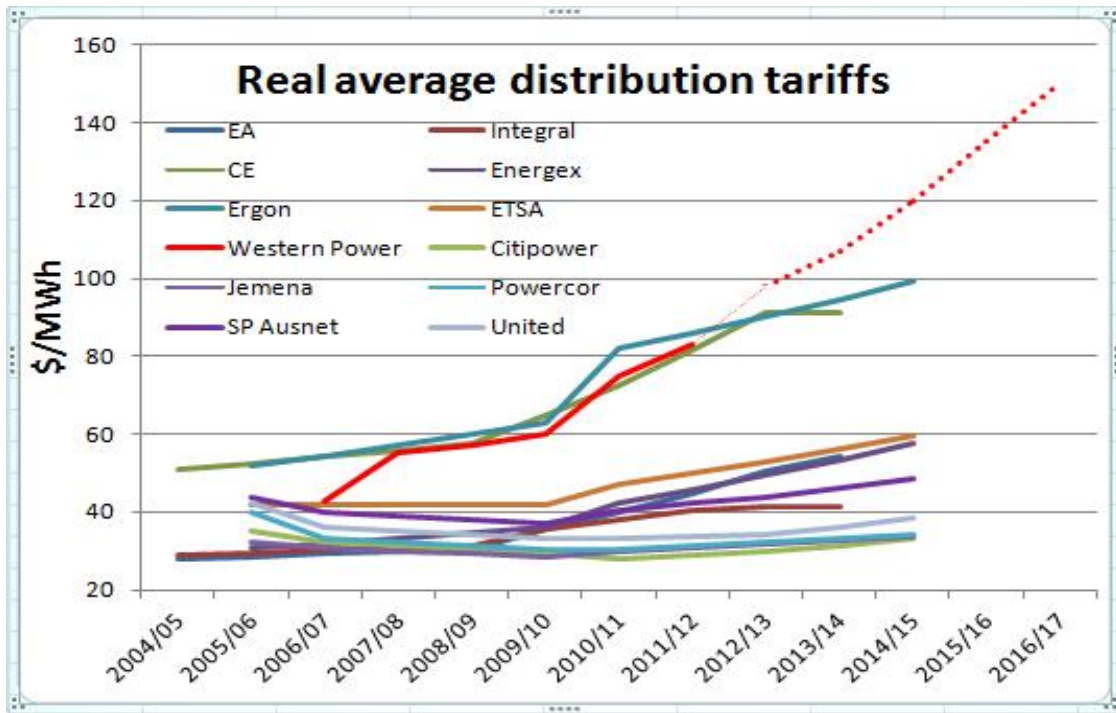
The WP transmission application just lacks credibility on the basis of the analysis we have presented earlier on WP's historical performance and profitability over the AA2 period and will impose much higher costs on WA consumers than occurs anywhere else in Australia.

2.2 The impact of the distribution program

In the case of distribution, WP proposes that the average real tariff should nearly double over the next five years. This is shown in the following chart.

This chart also shows the comparison between WP average tariffs and those in other Australian jurisdictions.

The changes in the WP average tariff over time, show that earlier in the decade, WP distribution tariff was in the same range as most other distribution businesses but during AA1 and AA2, it moved into a new range including Country Energy in NSW and Ergon in Queensland – serving probably the two least densely populated distribution regions in Australia.



Source: Regulatory decisions, WP AAI,

The SWIN should not be classified in the same way as Country Energy and Ergon – it is much more akin to ETSA in SA, and Powercor and SP Ausnet in Victoria, with a number of large centres and serving significant rural communities. On this basis alone, the current WP distribution average tariff can be considered to be excessive and this is supported by the fact that, overall, WP revenue for AA2 is some 23% higher than the actual costs WP incurred. The fact the WP is an integrated transmission and distribution business should provide lower costs than these stand alone distribution businesses

What is most alarming is that WP is forecasting that its distribution tariff will be even higher than those in the least densely populated regions of Australia, rising to more than twice the cost applying in its equivalents of ETSA, Powercor and SP Ausnet.

3. Forecasts

3.1 Inflation

The forecasts for inflation are critical, especially under the ERA stated approach of using “real cost accounting”⁴. The challenge for the ERA is to identify the forecast of inflation from which it can generate a real risk free rate to use in the Capital Asset Price Method (CAPM) approach to developing the WACC.

In its application WP has used forecasts of CPI of:

- ☐ 3.25% for the 2011 calendar year
- ☐ 3.00% for 2012
- ☐ 3.25% for 2013
- ☐ 2.5% for the remaining years to December 2020

From these figures, WP derives a geometric average of these forecasts of 2.70% and proposes that 2.7% be used in the WACC calculation

This forecast is somewhat higher than the forecast of inflation made by Powerlink of 2.5% pa in its recent application. The Powerlink value is the mid range of the RBA inflation target of 2-3% which forms the basis for setting official interest rates. In this regard the RBA uses a different measure of inflation (underlying inflation) rather than the headline inflation published by the ABS against what it considers warrants movements in interest rates.

However, recently the ABS revised the way it calculated headline inflation and this resulted in a significant fall in the value of headline inflation.

The WAMEU considers that the ERA needs to define what on what basis it considers the setting of the expected inflation is most appropriate.

3.2 Demand

The WAMEU recognises that WP needs to provide a network that will meet the expected peaks in demand over the access arrangement period. Demand is what determines the size of the network. It is noted that the IMO has provided its 2011 Statement of Opportunities (SoO) on its website and this provides an independent assessment in the increased

⁴ Page 8 ERA Determination of the preferred methodology for calculating the weighted average cost of capital for covered electricity networks, 25 February 2005

demand likely to be incurred over the period of AA3, although it must be expected that WP must share some of its data with IMO for IMO to develop its forecasts.

In its application WP notes that its forecast of peak demand for AA3 will be similar to the actual demand increases during AA2. The WAMEU also noted that the forecasts of demand by both IMO and WP for AA2 were on the high side of what actually occurred.

The WAMEU does not have better data than that used by IMO or WP to forecast the expected growth in demand, and therefore is not able to provide a more definitive expectation than either of them.

What the WAMEU has observed is that over time, the error in forecast demand tends mainly to reflect a deferment of projects rather than of projects being brought them forward. The WAMEU has also noticed that as the SWIN is more aligned to manufacturing and service provision, the expected growth of activity in the North West is likely to have biased the average state GSP above what is likely to occur in the south. This same aspect has been noticed in other jurisdictions, where the growth in the more settled southern areas is lower than that in the emerging northern areas which are driven by mining activities, and use of average gross state products implies a higher growth in the south than actually occurs.

The WAMEU therefore has a view based on a qualitative assessment that the forecasts of increasing demand might be overstated.

This view does, in part, recognise that there is a strong incentive for there to be demand side responses which limit the growth in demand by providing payments to consumers to limit their demand at critical times. That this is the case can be seen from the November issue of the ERM newsletter "Powering on"⁵ which states:

"A good example of [demand side responsiveness] is in Western Australia, where in its most recent procurement cycle, more than 8 per cent of the resources that were procured by the market were demand response."

The WAMEU considers that because of this strong incentive for demand side responsiveness to increases in demand, there needs to be careful assessments made of forecast increases in demand that are used to substantiate large increases in growth driven capex.

⁵ See <http://ermpower.com.au/newsletter/november-2011/qa-us-energy-technology-expert>

3.3 Consumption

The WA IMO Statement of Opportunities for 2011 implies that consumption growth over AA3 will average about 4% pa with a large rise between 2013/14 to 2014/15. In contrast, WP considers consumption growth will average about 2.5% pa with no large rise between 2013/14 and 2014/15.

As WP is operating on a revenue cap arrangement, there is no driver for WP to understate its expected consumption growth. However, the lower consumption used by WP results in a higher cost per GWh in the average tariff, and exacerbates the already excessively high average forecast tariffs noted in section 2 above.

3.5 Cost escalators

WP advises that a significant element of its increases for capex and opex (both current and future) were, and will be, a result of labour and materials increasing in price at a rate faster than CPI. To support this it provides reports from CEG regarding labour and materials cost growths and from Macromonitor relating to labour cost growth. To a degree this replicates claims made by other NSPs reviewed by the AER.

3.5.1 Materials cost increases

3.5.1.1 General comments

The growth in costs for those materials identified as mainly used by WP (ie copper, aluminium, steel and oil) exceeds the CPI and as a result WP seeks to inflate the allowances for opex and capex by these costs greater than CPI.

WP does not address other materials that are also used by it extensively such as concrete and other building materials nor does it include for materials such as electronics used in its communications and controls. This is in contrast to the application for AA2 where the basket of materials included concrete, fabricated steel, wooden poles, electrical cable, raw copper, raw aluminium, electrical and control equipment, lights, nuts bolts and screws, earthworks and sheet metal.

The WAMEU considers that WP has used those materials most likely to increase in value faster than CPI and has neglected to include for materials which are expected to increase at a lesser rate.

The report by CEG provides its conclusions as to the expected growth rates for the materials identified by WP, but it does not provide the detail behind the development of its conclusions. For instance there is no forecast of the movement in exchange rates provided. Overall, the report by CEG just provides the conclusions CEG has reached for the material identified by WP. The report provides little in the way of quantification and in the way these outcomes were achieved.

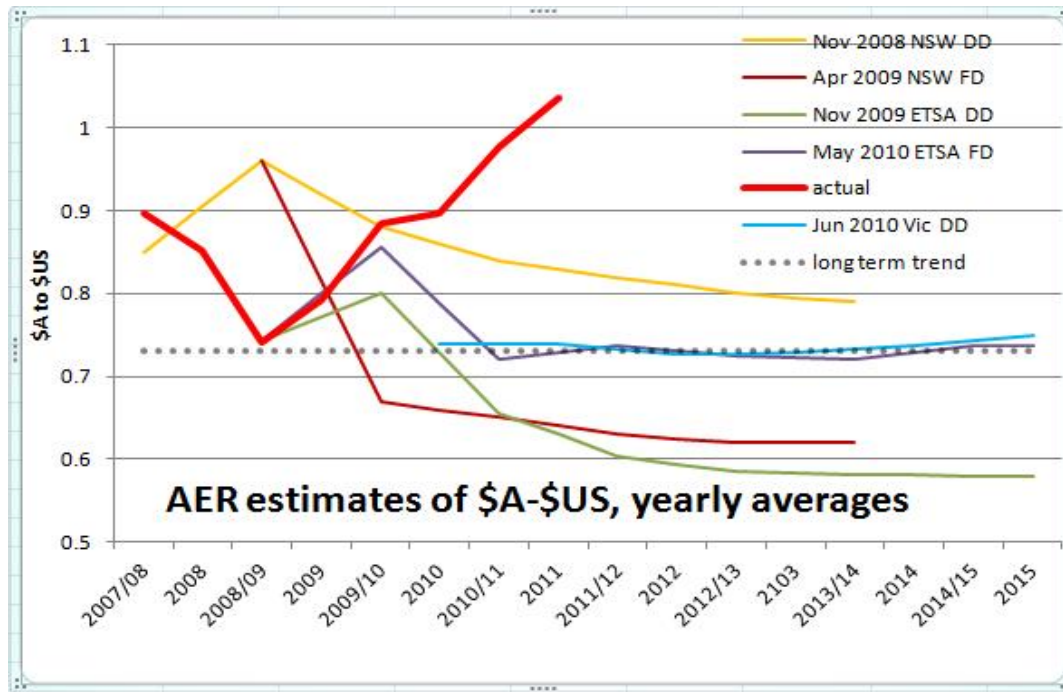
The development of the actual materials escalator by WP is based on a basket of four materials which CEG has provided its view on as to the extent of growth for each material. WP fails to provide the proportions of each material escalator in the basket, or explaining why these proportions are appropriate. All WP does is to state:

“The materials weightings have been informed by data maintained by our procurement team. We procure materials for our staff and contractors. This consolidated approach to competitively procuring materials allows costs to be efficiently minimised by realising economies of scale in procurement and being able to monitor changes in the market prices of these inputs and the correlation of these changes to their underlying input material spot prices.” (AAI page 142)

This explanation does little to explain how this large cost element has been calculated. WP goes on to state that for materials which are expected to rise at CPI or less, these have been excluded from the basket and therefore this offsetting effect has been excluded. Overall, the WAMEU has little confidence that the approach used by WP is reasonable or even delivers an acceptable outcome, even supposing that the forecasts by CEG are accurate.

The WAMEU is very much aware that forecasting is not an exact science. For example, the WAMEU has been monitoring the movement of the \$A/\$US used in regulatory determinations over an extended period and tracking this against actual movements. The following chart highlights the difficulty in forecasting this variable accurately.

The point of this exercise is not to demonstrate any lack of expertise in those being requested to provide forecasts, but how the forecasts made can impact the allowances for inflation of costs above CPI. The chart shows that for 2011, the consultants advising the AER opined that in June 2010, the forecast exchange rate in mid 2011 would be \$US0.74 when in fact it is \$1.04. This is an error of over 30% in just one year.



Source: AER decisions, RBA.

The development of inflation costs for specific material requires the combination of a number of variable – the expected growth in prices in the material, the expected exchange rate needed to convert this growth forecast into \$A and then a forecast of the expected inflation in Australia to reduce this cost to a “real” increase in cost.

When errors as large as those seen in the exchange rate are so evident, it makes the development of specific “real” cost growths a fraught exercise. When this error is recognised, and that it is further biased by ensuring that the outcome is conservative, there is little doubt that consumers (who are required to pay the premium on the materials cost forecast) have little faith in the outcomes.

The WAMEU recognises that the movements in CPI do not reflect the actual movements in specific materials, yet when all materials are introduced in combination, the CPI is probably just as likely to provide an accurate outcome as developing an implied materials escalation index in the way WP has done so.

The WAMEU expects that ERA will ensure that the overall allowance materials escalation reflects the movements in all materials used by WP and that the allowances are considered to be a reasonable reflection of the actual movements across the board.

3.5.1.2 Specific materials

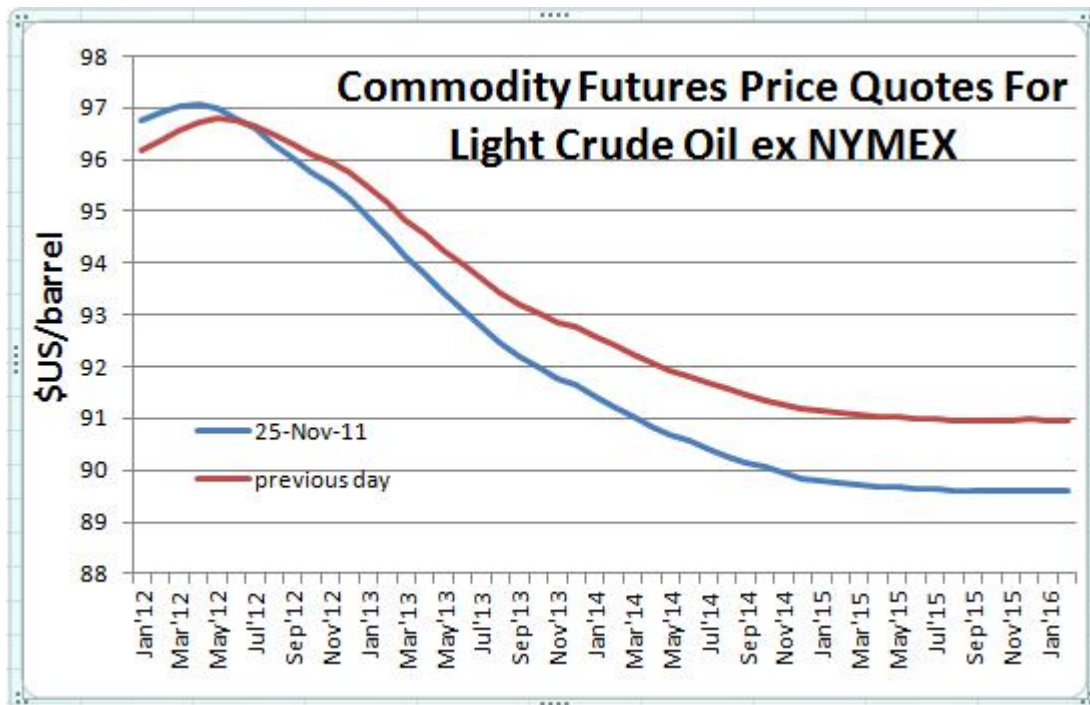
The forecast by CEG for movements in material prices is as follows

Table 1: Escalation factors for Western Power, real

Financial year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Aluminium	-0.9%	2.8%	4.1%	3.9%	3.3%	2.6%
Copper	-5.3%	-0.8%	-0.8%	-1.7%	-2.4%	-3.1%
Zinc	-8.6%	2.2%	3.5%	4.4%	3.8%	3.1%
Crude oil	-0.2%	2.1%	1.6%	1.0%	0.7%	0.4%
Steel	-1.3%	-2.6%	0.7%	4.1%	3.4%	2.7%
Labour	1.9%	1.5%	3.1%	3.7%	3.1%	3.1%

Source: AAI appendix W1, page 5

The forecast for crude oil of real price increases over time does not appear to reflect what is seen on NYMEX. The following chart shows the forecast movements quoted by NYMEX appear to indicate a general and continued reduction in oil prices which is at odds with the CEG advice. It may be that the difference is a result in movements in \$A/\$US but CEG does not provide any substantiation.



Source: <http://futures.tradingcharts.com/marketquotes/CL.html>

This raises concerns about the way CEG has developed its forecast materials prices into the future. The WAMEU is not implying that CEG has not carried out its tasks in a correct manner, but the question is more to do about how CEG has completed its tasks.

What is not clear is how CEG has developed the forecasts. To achieve the outcomes, CEG has had to identify the future movements of the specific material, adjust this for forecast movements in currency and then further adjust this for forecast movements in Australian escalation. As no forecast will be correct, this approach introduces errors, which are then compounded with further errors. Thus the final error has the potential to be extremely large. To offset this error, a forecaster tends to be conservative.

If there is conservatism in the forecasting, then it is consumers that take the risk on this. The more conservative a forecast is, the greater the cost is to consumers and the greater the potential for a transfer of wealth from consumers to service provider.

WAMEU is concerned that the CEG forecasts are likely to be too conservative and should be adjusted to remove this conservatism. Further, as WP has decided to use the CEG forecasts, WP should be required to provide a statement as to the compounded error that is implicit in the final value used, as well as the degree of conservatism that has been included in the forecast.

3.5.2 Movement in labour costs

3.3.2.1 Source of data

Appendices W1 and W2 of the AAI provide a forecast of labour and material cost movements into the future. CEG provides its view on labour costs (see section 3.5.1.2 above). CEG requested Macromonitors to provide a forecast of future labour movements.

The forecast increases in real labour quoted by WP appear to be based on the wages forecasts by CEG (see table in 3.3.1.2 above) although WP observes these are provided by Macromonitors.

Table 31: Labour escalation factors

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Labour	1.9%	1.5%	3.1%	3.7%	3.1%	3.1%

Macromonitors provides a different forecast labour cost to that provided by CEG and there appears to be some inconsistency between the two. CEG does not explain how its converts Macromonitors data into its forecasts.

Table 1
Labour Costs - Electricity, Gas, Water & Waste Services Sector
Western Australia - Annual % Change

Year Ended June	Average Weekly Ordinary Time Earnings (Full Time Workers) \$	Wage Price Index - Ordinary Time Hourly Rate Index: 08/09=100	Unit Labour Costs - \$ Wages per \$ Real Gross Value Added \$
2006	9.2	8.0	17.5
2007	5.1	4.5	6.4
2008	4.9	4.1	13.8
2009	9.7	7.2	19.6
2010	5.9	5.2	6.5
2011 est.	9.3	4.3	20.0
Forecasts			
2012	6.3	4.9	9.5
2013	6.3	5.0	7.9
2014	6.7	5.4	7.2
2015	6.3	5.0	5.8
2016	5.7	4.5	4.3
2017	5.7	4.5	4.1
Average Annual Growth Rates			
2001-2006	5.3	4.5	10.0
2006-2011	7.0	5.1	13.1
Forecasts			
2011-2017	6.1	4.9	6.5

Source: ABS & Macromonitor

The WAMEU is concerned that there is no clear link between the various forecasts and that no one has provided a methodology as to how the values are derived. As with the forecasts of materials, there are a number of stages where errors can be introduced, firstly with the identification of the forecast value, the integration of productivity and then the application of forecast inflation to provide “real” values.

CEG observes that it has a preference for using AWOTE as the basis for labour cost price movements, and not labour price indices

The WAMEU is aware that the AER has used Access Economics as the source of forecast labour “real” productivity adjusted labour price indices. The AER has provided its cogent reasons as to why it uses labour price indices in preference to those based on AWOTE. The WAMEU considers that the arguments provided by the AER outweigh the arguments used in favour of using AWOTE as the basis for assessing labour cost movements

The WAMEU considers that the ERA should obtain independent assessments of labour price movements, such as the AER does, to

ensure that there is less opportunity for error and inbuilt conservatism being applied.

3.5.2.2 Labour mix

WP has used as the forecast movements in labour expected to be employed, the EGWW labour index for WA. This approach has some validity for labour directly employed by WP in its opex calculation, but little validity for other elements of labour such as office staff and for capital works.

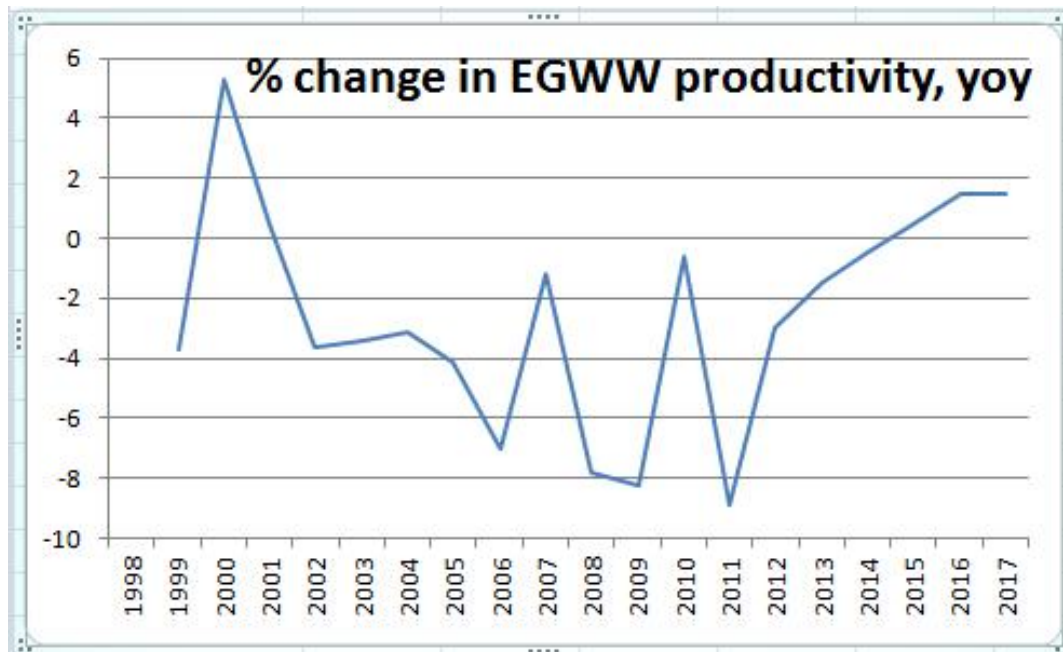
CEG makes the observation that it views office staff costs are driven by the same underlying drivers that apply to field staff. The WAMEU differs in this regard. WAMEU represent businesses that are large employers of labour, and knows that, from first hand experience, the costs for office staff do not track the labour costs for field staff. Further, the productivity of office staff is significantly different to that of field staff.

In its application for AA2, WP did differentiate between external workers and internal workers, although it did not differentiate between internal field workers and internal office workers.

Therefore the WAMEU considers the CEG statement has little validity for WP employed non-field staff employed (eg WP office staff, management or other technical staff), nor for much of the labour mix needed for capital works. Capital works uses a staff mix which includes those employed in an office, technical staff, manufacturing labour and construction workers.

3.5.2.3 Productivity

There is a need to adjust the forecast labour costs to allow for productivity improvements. In its forecast Macromonitors has opined that productivity has fallen over time and will continue for much of AA3 until late in the period. The year on year change in productivity measured by Macromonitors since 1999 is shown in the following chart, using the data provided by them in table 5, of AAI appendix W2



The implication of this chart is that the productivity performance by WP field staff has consistently fallen over the past decade and has continued to do so. This tends to obviate the supposed benefits of dis-aggregation and corporatisation of Western Power by the WA government. In this regard, it is pertinent to observe that Macromonitors provides the following disclaimer in its report at page 2;

“If a projection of labour costs adjusted for productivity is required, and the individual factors affecting the output to labour ratio (productivity) within the organisation are not known, then our projections of unit labour costs could be used. However, this should be done with caution for the reasons described in this report.”

The WAMEU is of the view that the past and forecast productivity figures developed by Macromonitors might not be correct for WP and therefore great care should be used in extrapolating them to WP.

4.6 Conclusions

The WAMEU is concerned about many of the forecasts provided by WP as there is considerable potential for these to be biased in a conservative manner and therefore not reflect the real needs of the organisation.

The ERA is encouraged to obtain independent assessments of the forecasts to ensure that the outcomes do not unfairly favour WP receiving an unnecessarily high revenue stream.

In obtaining this independent advice, the ERA should require the independent assessor to provide an indication of the cumulative error inherent in the calculations and therefore provide a guide as to the potential conservatism embedded in the outcomes.

4. Setting the RAB and depreciation

4.1 Setting the RAB

WP proposes that it not reset its RAB on a new depreciated optimised basis but use the approach used by the AER, which is to agree the starting RAB based on a roll forward basis. The WAMEU considers this is a sound approach providing that:

- The capex should be the amount agreed as prudent and efficient capex. In principle, WAMEU accepts that actually incurred capex, if it is efficient and prudent, should be added to the RAB.
- Depreciation is set at rates that properly reflect the expected economic lives of the assets
- The asset base is adjusted for the removal of the value of assets only partially used (ie the asset base is optimised)

WP advises that its RAB has been set on this rolling forward approach.

WP advises that it's incurred capex for AA2 (including the forecast for 2011/12) meets the requirements for Access Code because (page 4, appendix B1):

- “[its] governance and planning processes supporting the investment decisions and delivery are consistent with good electricity industry practice
- [it] efficiently minimised costs through our approach to cost estimation, [its] works optimisation process, [its] procurement practices and competitive tendering of the majority of [its] expenditure, as well as testing [its] cost outcomes through benchmarking of building block costs and total capital expenditure
- [its] projects and expenditure have also been subject to additional scrutiny as follows:
 - a number of the key capital projects have been reviewed and approved by the Authority consistent with section 6.71(b) of the Access Code
 - it has been subject to additional independent external scrutiny by the Department of Treasury and the Economic and Expenditure Review Committee in the context of considering the need for additional funding”

In fact, WP did not invest all the capital it had been allowed by ERA for transmission or distribution investment although it overspent on corporate capital allowances. Further, WP has not provided the data necessary to prove the opening capital base for AA2 because it has not provided the details of the actual capex used in the final year of AA1. To prove the opening capital base for AA3 requires the actual prudent capital expenditure for the last year of AA1 and then to demonstrate the prudence of the actual capex for AA2, of which the final year capex is yet to be finalised.

The WAMEU considers that an overspend on corporate capital investment (IT) needs close attention to identify that the investment in this arena was indeed prudent and efficient as required by the Code.

Overall, the WAMEU does not have sufficient information available to it to make its own assessment that all capex was prudent and efficient and expects the ERA to undertake an independent review of the actual capex to ensure that it meets the requirements of the Code.

WAMEU has a major concern about the approach used by WP to roll into the asset base, capitalised costs for project cash flow due to the WP approach used to value capex at the end of each year rather than at the mid points. This cost is not in reality a capex issue but one of working capital. The WAMEU considers that the costs “time value of money” in tables 57 and 61 should be an opex cost and not capitalised. By capitalising these costs, consumers will be paying for the cost for many years rather than just once.

In this regard, the WAMEU notes that the opex allowances were not fully utilised and therefore consumers have already paid for this “time value of money” and to capitalise the amount essentially implies that consumers will have to pay again for this decision by WP for AA2 not to use the midpoint of the year for the notional time of capital expenditure. The WAMEU notes that WP seeks for the midpoint approach to be used for AA3 so this matter does not arise again.

WAMEU also questions why “gifted assets” (see AAI appendix B1 table 3) are included as capex under the RAB. If WP was, and is, to be gifted assets, it did not and will not pay for them and therefore these should not be permitted to be added to the RAB and thereby granted a return on them.

4.2 Depreciation- general

WAMEU has noted a trend for some network owners to claim that replacement of assets earlier than the economic life makes sense in that if the replacement can be carried out as a part of a consistent program then the capex required will be less due to efficiencies.

Another trend has been for network owners to identify that certain types of assets show a tendency to fail before the expected life, and that therefore there is a logic based on reliability grounds to replace assets before they fail, even if this is before they are economically depreciated.

The WAMEU also points out that replacement of assets purely based on their age has the potential to cause assets which are still used and useful and, performing as intended, to be replaced regardless. Within the AAI, WP proposes that it will replace assets at the end of their economic life, but the capex program proposed actually increases the rate of asset replacement.

This desire to replace assets regardless of their technical competence to perform at the end of the depreciated life or earlier, if the regulator can be convinced of the logic of doing so, is a direct result of the building block approach to regulatory revenue setting.

If an asset with a short expected economic life (or zero if fully depreciated) can be replaced with a new asset of current value, then the network owner is rewarded by gaining a return on an asset doing the same task as an asset which might still provide the service, but does not provide a return.

If the return granted by the regulator is higher than the network owner can achieve by investing in an alternative way, then there is an active incentive to replace aged assets at, or before, the economic age is reached. Alternatively, if the return a regulator grants is equal to, or lower than, the return that can be achieved by investment in an alternative way, then there is a disincentive on investing capital, causing the asset owner to retain aged assets beyond the economic life, and for the full technical life of the asset.

As is discussed in section 5.5 below, the share price premium of the Utilities index over the market average shows that investment in Utilities will provide a better capital return of ~20% compared to investing in the market average. When it is also noted that the dividend yield of the sector

is currently 21% more than the market⁶, there can be little doubt that the market considers Utilities to be an attractive investment. Thus there is an incentive on the regulated Utilities to invest, resulting in an incentive for network owners to replace assets regardless of their condition if the regulator can be convinced there is a reason to do so.

The WAMEU is concerned that WP will embark on the same approach as other NSPs and replace assets before the end of their technical life. WAMEU members advise that in a competitive environment assets are kept operating well beyond the depreciated life if at all possible, as by doing so the businesses can reduce the effective LRMC for their assets. As a standard rule, in a competitive environment assets are only replaced when the IRR assessed for replacing them exceeds ~25%.

Affiliates of WAMEU have consistently raised with regulators the issue of unnecessary replacement of assets.

Network owners highlight that ever increasing opex is required to maintain “ageing” assets and massive amounts of capex have been approved (and spent) supposedly in reducing the average age of assets. So far consumers have noted that network owners claim, and regulators grant, increased expenditure based on the recurring theme that more is needed. At the same time the market value of the businesses owning the networks increase for providing the same service.

As the ERA is expected to ensure that assets are not replaced if they still perform the required service reliably, then it must develop a method of ensuring that used and useful assets are not replaced just because they are fully depreciated.

5.3 Depreciation – changes

WP proposes to retain the depreciation schedule used in AA1 and AA2 but to reduce the depreciation times of transmission SCADA, Transmission IT and Distribution IT because (AAI page 250):

“...because we found that the values used for these asset groups in AA1 and AA2 were not consistent with the economic lives applied in other jurisdictions and the assumptions now adopted by Western Power for accounting purposes.”

⁶ Sourced from Morningstar data

The WAMEU finds this comment quite astounding. That WP would change the depreciation rate it has used historically (and presumably with sound reasons) for AA1 and AA2 and probably before these times, purely because other jurisdictions have done so is, does not reflect a considered opinion appropriate for WP.

There are many other aspects of regulatory approach that WP considers the ERA should assess its claims on their merits and not on comparison with others, yet WP sees that in this instance, the rate of depreciation should change because others do. Equally it is noted that some of the rates of depreciation used by WP show shorter lives than those used elsewhere, but WP does not suggest that its rates should be changed for this reason.

The WAMEU considers that depreciation rates should not be varied as proposed by WP.

5. Weighted Average Cost of Capital (WACC)

All consumers (large and small) view that their long term interests are advanced by ensuring continuous access to the affordable, reliable and safe supply of energy, in recognition that energy is an essential service to the community. Given the increasing pressure on household and industry budgets and upward pressure on energy prices (due to a range of new imposts), the regulator should focus on ensuring that the WACC is set at a level that delivers prices that are efficient and do not allow for over-recovery.

Consumers using the WP services are facing massive increases in the tariffs WP is seeking to impose. One of the main drivers of these tariff increases will come about if the ERA provides a rate of return well in excess of the costs that WP incurs, especially in relation to the debt risk premium and the gearing used by WP.

The Annual Reports for WP over the past few years provides some very useful information about the way WP undertakes its financial activities.

WP has raised no new equity since FY 2009, when it an equity contribution of \$6.7m⁷ was added to its equity. In FY 10 and FY11, the equity in the firm was only increased through the retention of some earnings, clearly identifying that WP had not incurred any equity raising costs during AA2 period. WP notes that its requires debt issuance costs of 12.5 bp pa for itsr debt establishment, yet the annual reports highlight that it does not incur these costs, as it sources all of its debt requirements from WA Treasury Corporation and has an automatic rollover of its debt as debt falls due.

Note 15 in WPC Annual Report for financial year ending 2011 comments that:

“Non-current domestic currency loans of \$4,967.293 million (30 June 2010: \$4,630.209 million) includes an amount of \$980.257 million (30 June 2010: \$1,201.261 million) that will become due and payable during the 2011/12 year. Borrowings are governed by a facility agreement with WATC⁸ that allows Western Power to refinance all or any part of maturing debt. This amount falling due in 2011/12 will be refinanced under the facility agreement, and so has been classified as non-current....

⁷ See note 9 in AR for FY09

⁸ Western Australia Treasury Corporation

Western Power's domestic currency loans are all provided by the WATC. The financial liabilities incurred or assumed by the WATC are guaranteed by the Treasurer on behalf of the state."

As WP has not raised any new equity (other than the retention of some earnings), the gearing of WP (debt/(debt+equity)) has consistently increased as it invested more capital in the network. At the end of FY 09, WP gearing was 77% and this has risen to over 80% in FY11.

There is a regulatory view that the provision of debt should reasonably reflect the cost of the acquisition and holding of debt rather than this being a potential source of increased profit. The advice WP provides in its annual report brings out two salient issues for consumers and the regulator:

1. WP does not have to seek potential providers for its borrowings, as WATC provides all of its domestic borrowings. Therefore, WP does not incur significant costs in the acquisition of its debt and does not need funds for debt acquisition.
2. WP effectively sources its debt as if it were a AAA rated borrower rather than the assumed BBB+ rating claimed by WP in its application. That it is paying for debt at AAA rates belies the fact that its gearing exceeds 80%

There is no doubt that the WACC allowed WP by ERA in 2009 well exceeded the actual costs incurred by WP in providing the capital needed to deliver the services. There can also be no doubt that the WACC allowed by ERA was not efficient.

The ERA must address this clear anomaly in the development of the WACC provided to WP. It is simply not acceptable for ERA to allow WP to continue to grossly over charge consumers for a WACC that bears no relationship to reality and the ERA approach to setting the WACC must not be purely a mechanistic one, especially in relation to setting the debt risk premium.

Consumers expect that rule makers and regulators will manage the regulatory bargain with equity and fairness. Indeed, the objective of the Law requires the interests of consumers to be considered. But the reality has been that the ERA allowed regulated firms a return which is not reflective of the risks inherent with the service being provided.

The WAMEU provides its views on the various WACC parameters in the following subsections.

5.1 Risk free rate

The WAMEU accepts that regulators tend to allow the use of the most recently published 10 year commonwealth government bonds (CGS) as the risk free rate, allowing the applicant to set the averaging period for setting an actual risk free rate.

The WAMEU has a concern about this practice. Whilst the 10 year CGS is considered to be an appropriate risk free rate (and indeed is used as the basis for setting the market risk premium) the basis for setting a risk free rate for a five year period being the average of a relatively few days prior to the publishing a final decision is not really an appropriate assessment for such a long period of time. It is accepted that the cost of 10 year CGSs varies considerably over time. Therefore to use what is effectively a point calculation would introduce considerable errors in the WACC over the long term.

With this in mind, the WAMEU suggests that the ERA should consider implementing a longer period (perhaps 1-2 years as the averaging period for setting the risk free rate.

5.2 Inflation

The ERA has advised that it has elected to use a real WACC for this review. The issue now is that deriving a real WACC require an independently and market based risk free rate that is indexed. This effectively provided a “real” risk free rate on which to develop a real WACC.

In the absence of a strong indexed bond market, any estimate of inflation needed to provide a “real” risk free rate, is dependent on a forecast of what future inflation will be. WP has assessed the future inflation based on a number of sources, of which the primary one is the Reserve Bank forecasts. Notwithstanding this use of RBA data, WP has factored in an inflation rate higher than that seen to be the midpoint of the RBA range of acceptable inflation. What is even more concerning is that WP has not used the most recent inflation figures used by the RBA since the adjustment was made to the “basket of inputs” used to develop the inflation rate.

The WAMEU considers that ERA should make its own up-to-date assessment of future inflation based on the recently changed conditions.

5.2 Debt risk premium

As commented on in sections 1.3 and the introduction to this section 5, WP was granted a WACC for AA2 that greatly exceeded its costs. In particular, the debt risk premium awarded WP by ERA was some 410 basis points above the risk free rate. In practice, WP secured its debt from WA Treasury Corporation at a debt rate well below the debt cost set by ERA. Further, it has no need to seek competitive debt allowances because the WA Treasury Corporation has undertaken to automatically roll over debt as it falls due.

There has been a view propagated that the debt risk premium included in the WACC for government owned enterprises should be assessed as if the provider were sourcing the debt in the open market as a privately owned business because this represents a competitive outcome. Such a view does not reflect reality and is without foundation. Government owned networks:

- Are not in competition with other network providers
- Are not in competition with other private firms for sourcing debt
- Source their debt from their government treasury corporations and not from the market.

To allege that higher debt premiums are warranted because of competition reasons is simply wrong and does not recognise that the Law requires the network pricing to be efficient. **Efficient debt provision should result in the debt being provided at the lowest possible cost and not at a rate that exceeds the actual costs incurred.**

In the WP annual report for FY11, WP provides the following notes in its financial statements:

“Note 3(E)(i) Interest rate risk is the risk to Western Power that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Interest rate risk in Western Power primarily arises from borrowing obligations. Western Power has an interest rate risk management strategy which aims to mitigate the significant exposures to interest rate risk through the active management of interest rate related risks. Debt portfolio structure guidelines are set to manage the interest rate risks arising from Western Power’s regulatory environment. Debt maturity guidelines are set to

ensure that Western Power is not exposed to excess risk from interest rate volatility. Interest rate forecasts are continuously monitored and, where appropriate, exposures to interest rates are managed through the use of Board-approved hedging instruments.

Note 3(E)(iii) Financing arrangements

Western Power has a borrowing facility with the WATC with a limit of \$7,000.000 million (30 June 2010: \$7,000.000 million). As at 30 June 2011, the unused portion of this facility was \$2,032.707 million (30 June 2010: \$2,369.791 million). The planned usage of this facility is governed by the Strategic Development Plan (SDP) agreed with the Minister for Energy. The maximum amount of borrowings permitted by the Department of Treasury and Finance (DTF) for the year to 30 June 2012 is currently \$5,604.900 million (30 June 2011: \$5,198.700 million). Actual borrowings at 30 June 2011 were \$69.707 million (30 June 2010: \$58.000 million) below the formal DTF borrowing limit.”

When these notes are read in conjunction with the note 15 referred to in the introduction to this section 5, WP not only sources its debt from WA Treasury Corporation (which receives its funds based on the WA government AAA credit rating), but that WP has access to additional borrowings and an automatic rollover of existing borrowings. Taken together, WP effectively has no risk on its future debt, incurs no cost in its acquisition and benefits from a AAA credit rating.

For WP to suggest (as it does in its application) that it will incur a cost of debt in the range of 383 – 430 basis points, plus an additional 12.5bp for debt acquisition is unsupportable. WP alleges that this is the appropriate debt cost because this is derived from a complex arrangement based on extrapolation and interpolation of the Bloomberg fair value curves for ten year BBB+ rated Australian corporate bonds which takes a mechanistic approach to debt provision to an absurd level.

In fact, all WP needs to do is go to WATC and ask to draw down against its already provided debt facility. In the last three years, WP has borrowed at a rate of about 525 +/-25 basis points⁹ – this is derived from the WP annual reports for these years. At the same time the risk free rate has been 5.02, 5.50 and 5.30 for FY09, FY10 and FY11 respectively – an average of 527 bp. This implies that the average debt risk premium

⁹ In its annual reports for 2009, 2010 and 2011, WP incurred average debt costs of 5.2%, 5.0% and 5.5% respectively compared to its debt liabilities, with all debt being provided by the government.

incurred by WP is effectively zero. This is to be expected as the WA government AAA credit rating should allow it to borrow at much the same cost as the Australian Government on which the risk free rate is set.

WP already knows that its borrowings will incur a debt risk premium of maybe as high as 20 bp (but probably less), so for it to argue that its borrowing costs will be 383 to 430 bp above the risk free rate is disingenuous in the extreme. In claiming this level of debt risk premium, WP is relying on ERA applying a regulatory practice that has been demonstrated as providing an outcome that does not reflect reality or equity for consumers.

Equally, if the ERA allows a debt risk premium which is derived from the WP arguments, then it is not complying to the requirement that the network should only be allowed costs which are efficient. If the ERA allows any more than the actual costs of debt, then it will have failed the prime requirement that its actions should reflect the long term interests of consumers in terms of price.

In its recently proposed network regulation rule change¹⁰, the AER observes in section 7.5.2 (page 77) regarding the nature and scope of issues with the current rules:

“The current definition of the DRP significantly constrains the AER’s ability to set an efficient cost of debt which is consistent with the NEO and the revenue and pricing principles. In particular, the reference to a benchmark bond with a particular term to maturity, credit rating and domicile of the issuer bears little resemblance to the financing practices of NSPs and other behaviours of NSPs to minimise their cost of debt.”

The AER goes on to say (page 78):

“Debt markets have, however, since changed, and the benchmark debt portfolio held by NSPs is unlikely to be fairly represented by a corporate bond of a particular maturity. The regulatory framework should be flexible to adapt to what is current practice. Moreover, as benchmark financing structures can change over time, the AER is not simply proposing to replace the existing benchmark (i.e. corporate bond rate) with another, but proposes for this to be considered from time to time in

¹⁰ Economic regulation of transmission and distribution network service providers AER’s proposed changes to the National Electricity Rules September 2011

the WACC review. The AEMC did not justify why, when developing chapter 6A, the AER should be able to periodically consider the values or methods of calculating all other WACC parameters except for the DRP.”

The AER approach to the issue of debt risk premium recognises that the provision of debt cannot be costed purely on one benchmark (even if it could be calculated with some precision) as firms recognise that for debt costs to be efficient, they must be sourced on a portfolio basis, from a range of sources, with differing types of debt and with a range of maturities. Unless the firm is a government entity with access to large levels of low cost debt, then sourcing debt on one basis is unlikely to be efficient. In this way the AER has effectively shown (indirectly) that the approach used by WP in its application is flawed in the extreme and the ERA should not permit this approach.

The WAMEU considers that the ERA must recognise the actuality of the source of WP’s debt and only allow WP to recover the cost of debt based on the debt rate that WP is liable for.

5.3 Gearing

ERA has previously elected to set its gearing for the notional network business at 60% debt. This has been determined on the basis that a firm with a gearing of 60% would be able to access BBB+ debt efficiently.

In fact, WP has a gearing of over 80% (WP AR FY11) and still attracted debt as if it had a AAA credit rating. This is an efficient approach to securing the necessary capital to provide the services required as a higher gearing should result in an overall lower WAQCC because debt should be available at a lower cost than equity. Historically, government owned corporations and other entities tended to operate at 100% gearing as this resulted in the lowest cost of capital and was possible because of the credit rating a government has compared to that of a single purpose entity.

For WP to allege that it is efficient at a notional 60% gearing (as implied by its application) is unrealistic. It has demonstrated that its cost of capital at a gearing of 80% is more efficient because it can still acquire debt at a lower cost than the cost of its equity.

The ERA is required to ensure that the costs allowed to WP must be efficient. If WP can provide a more cost efficient outcome at a gearing of 80% than at 60%, then the ERA must take note of this and reflect this gearing into the cost structure it allows. If ERA retains the gearing at the

notional level of 60% and the costs it allows as a result are higher than WP incurs, then the ERA will not have acted to meet the objective of the Law that the price charged for the services provided by WP must be efficient.

The regulatory approaches used in Australia are based on incentive regulation. The purpose of incentive regulation is to allow the regulated firms to use their skills to increase the efficiency with which they provide their services and thereby, over the long term, reduce costs to consumers. In practice what consumers are seeing is a continual increase in the costs of the services provided by monopoly network owners, particularly in the case of government owned networks.

The ERA has to face reality. WP has demonstrated that It has reduced its costs by accessing debt from WA Treasury Corporation and by increasing its gearing to 80%. This means that the ERA can either set the costs WP can recover at the efficient level (as required by the Law) or it can retain a mechanistic approach to setting the WACC at a level which provides WP with more revenue than it needs to provide the service.

5.4 Market (equity) risk premium

Market risk premium (MRP) is the difference between the accumulation index from the share market average return from share growth and share dividends. It is intended to provide a view as to what is expected in terms of growth and dividend for a well diversified share portfolio, and by doing so, provide a guide as to what is a reasonable reward for the provision of equity in a regulated business.

The MRP is intended to be a forward looking estimate and recent movements in the growth in share values would indicate that there has been little growth in the past 3-4 years, indicating that the recent values of MRP are quite modest. This assessment is supported by evidence from surveys of what MRP market practitioners use in their expectations for future rewards. The AER final decision on the Amadeus Gas Pipeline reset indicates that such surveys provide a range of 300-800 bp for MRP with an average less than 600 bp.

In its application, WP observes that MRP has been observed to be as high as 800 bp and on this basis WP opines that 650 bp is at the lower bound. It must also be noted that MRP has been much lower than 600 bp (and even negative for periods of time) so using WP's argument perhaps the MRP should be lower than the historically used 600 bp. Certainly the

analysis by the AER indicates that an MRP lower than 600 bp is well within the bounds of reasonable.

In 2009 the AER considered that the MRP should be set at 650 bp as there was uncertainty that the MRP had undergone a structural shift at the time of the global financial crisis (GFC) and awarded an MRP at this value for a number of regulatory decisions. However, in its most recent analysis of MRP (for the Amadeus Gas Pipeline) the AER considered that the impact of the GFC was demonstrably transient, and the forward looking MRP has returned to pre GFC levels of 600 bp.

In fact the AER was of the view that an MRP of 600 bp might well overstate what is considered to be an appropriate current forward looking value. However, what is clear from the work of the AER is that there are a number of ways of assessing the MRP and in each of these there is a degree of imprecision in the development.

After considering the arguments provided and after carrying out its own analysis, the AER concluded that an MRP of 600 bp is currently the best value to be given to MRP when considering all of the issues surrounding its valuation.

The WAMEU considers that as the effects of the GFC have now been well passed, there is every reason to revert to the value for MRP of 600 bp that regulators have historically used, rather than determine that there has been a quantum shift in its value as suggested by WP.

5.5 Equity beta

In its final decision on WACC parameters in 2009, the AER posits its view as to what equity beta is intended to reflect

“As is consistent with CAPM theory and the wording of the NER, the equity beta should only compensate service providers for exposure to non-diversifiable (systematic) risk, and not compensate for diversifiable (non-systematic) risk. Non-diversifiable risk refers to the macroeconomic or market-wide risk factors that effect the returns of all businesses in the economy—though to varying degrees—and include factors such as changes or volatility in inflation, GDP growth, interest rates, commodity prices and foreign exchange rates and changes in tax laws.”

In its final decision on the Amadeus gas Pipeline earlier this year, the AER stated (page 70):

“...the AER considers that the empirical evidence presented in the WACC review contains the best available estimate of the equity beta that would apply to a benchmark gas distribution network service provider, taking into account the need to reflect prevailing market conditions and the risks involved in providing reference services.²

The sample set of data used to derive the equity beta in the WACC review provides a value of between 0.4 and 0.7. The AER has given consideration to other factors ... the revenue and pricing principles, the importance of regulatory stability and is also mindful it has recently considered an equity beta of 0.8 to be appropriate, if not overstated, for other gas businesses. On the basis of the information presented, the AER concludes that an equity beta of 0.8 provides NT Gas with an opportunity to recover at least its efficient costs incurred in providing reference services and meeting regulatory requirements.”

In its response to the application by WP for AA2, the WAMEU provided a view that the equity beta should be no more than 0.7 based on the work carried out by the AER, and could be much lower. In its final decision on WP application for AA2, the ERA concluded that the equity beta should be in the range of 0.5-0.8 – this was based in large degree to the AER analysis from the WACC parameter review.

The AER has concluded in its Amadeus decision that there is no reason to vary from the analysis carried out for the WACC parameter review and for consistency sake, continued to use an equity beta of 0.8 for the Amadeus decision.

WP provides a report from SFG which opines that an equity beta of 0.8 is “commercially implausible” (page 4) and that it should be 1.0 because debt holders acquire their return before equity holders making an equity beta of 0.8 fail a “test of economic reasonableness and commercial plausibility”. SFG goes on to state that as the New facilities Investment Test (NFIT) requires an ex post audit of capex, WP has a higher equity risk than under the National Electricity Rules which does not have such a test, with actual capex being rolled into the asset base.

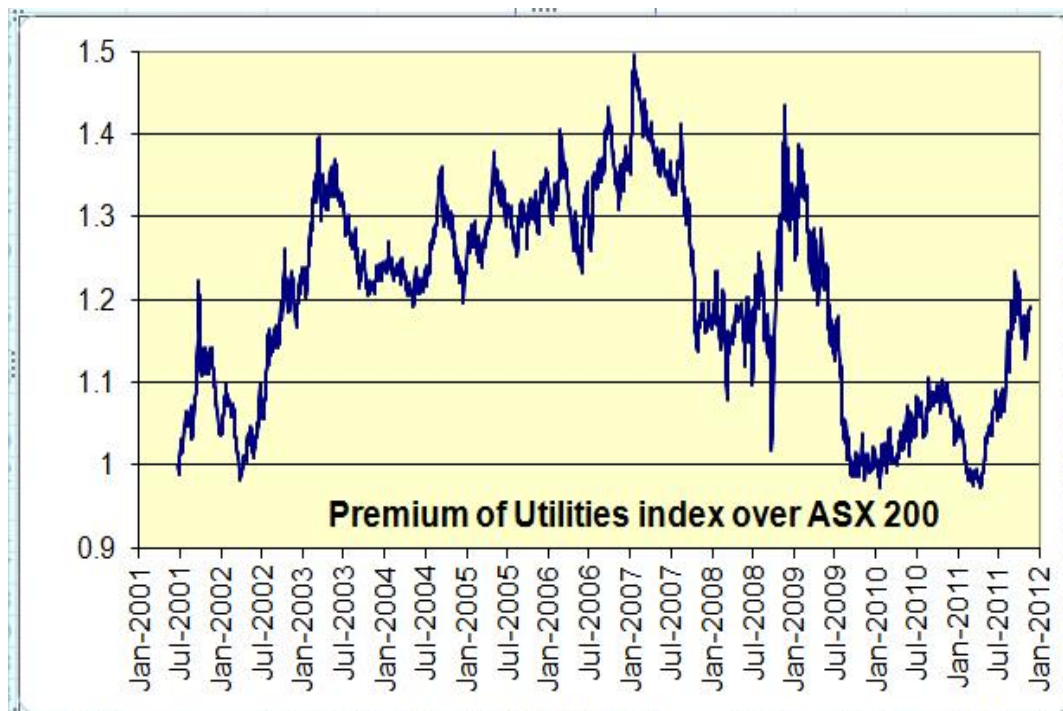
What SFG fails to note, is that under the National Gas Rules, there is a similar requirement for new facilities investment to be demonstrably prudent (just like with WP NFIT), and that for the Australian assessment of equity beta, most of the data available comes from companies with large

gas transport assets, implying that the equity beta measured relates more to gas assets than electricity assets. Further, SFG does not observe that equity beta data sourced from overseas entities is almost entirely based on gas transport assets and that the equity betas observed for those companies, shows a value even lower than 0.8.

That the AER applies an equity beta of 0.8 to both gas and electricity assets would, using the SFG approach, imply that the AER should be using an equity beta for electricity assets even lower than 0.8. In this regard Morningstar calculations for the beta of the Utilities sector currently is 0.76 compared to the ASX 200 as a whole of 1.08

SFG does address the issue of why Utilities should have a lower equity beta than the average of the market (which by definition must be 1.0). A plot of the Utilities index on the ASX shows that it consistently provides a better price than the general market as typified by the ASX 200 of which the Utilities index is a subset.

The following chart shows that over the past decade, the Utilities index (XUJ) has outperformed the ASX 200 (XJO) by an average of 20%, which is where it currently stands.



Source: Commsec data

Accepting that the index is a surrogate of the subset of stocks, implies that the market considers the Utilities to provide a more favourable investment than the market in general. Additionally, the Utilities within the subset provide a higher return than the market in general. Both these imply that the equity beta for Utilities as a class, is a less risky investment than implied by an equity beta in the range of 0.9-1.1.

Recognising that equity beta is intended to reflect non-diversifiable risk and there has been little change in this since the ERA decision on AA2, the WAMEU considers that there is little reason for the ERA to change its view that equity beta for WP should be in the range of 0.5-0.8

5.6 Gamma

Gamma is the parameter used to assess the value of imputation credits to the shareholders of a business. The lower the value of gamma the less imputation provides value to shareholders. If all shareholders benefit to the maximum, then gamma is 1.0.

The valuation of gamma has been before the Australian Competition Tribunal and it, “standing in the shoes of the regulator”, has determined that gamma is 0.25. The AER has not had subsequent persuasive evidence that this value is wrong and has used it in its decisions.

On balance, the WAMEU considers that a value for gamma of 0.25 raises a concern that imputation at this level hardly justifies the Australian government retaining imputation of dividends, but accepts that a gamma of 0.25 has been determined by the Tribunal.

5.7 Debt and equity raising costs

As a core element of assessing the costs to source debt and equity, it is essential to identify the sources of these fund types, and from this identify how these costs relate to firms operating in a competitive sector.

Debt is sourced from potential borrowers – both conventional and involuntary. Each tranche of borrowing has a term related to it. Based on the term and the type of borrowing each has its own unique cost to implement. For the purposes of establishing the debt raising costs, the ERA should identify a probable duration for the bulk of the debt raised and to use this as the basis of its debt raising cost.

It is clear from the annual reports provided by WP, that all of its debt is sourced from WA Treasury Corporation, and that long term facilities have been provided which allow the automatic rollover of existing debt. Further, WATC has provided a facility that WP has not yet fully drawn down (see section 6.2 above). The clear import of this is that WP will not incur costs for securing its debt from WATC either for renewing its debt or for securing more debt. This is the most efficient approach to WP accessing debt.

For ERA to allow WP a payment for securing debt, when it incurs no cost for doing so, is not efficient and would impose on consumers a cost that WP does not and will not incur. There is therefore no justification for ERA to provide WP with funds that are not required for the provision of the service for to do so would be to allow costs to be higher than the efficient level.

Similarly, WP has not accessed more equity, and has only increased its equity through the retention of some earnings. In previous decisions the AER has assumed that the provision of equity through retaining earnings does not result in a cost for providing for increased equity provision. In fact, the cost for raising equity assumes that the corporation has to access equity markets for new equity. As there is no intention of the WA government to sell part of WP in order to raise equity, it can be assumed that there will not be a formal equity raising by WP. If WP does not raise equity, there is no justification for ERA to allow WP a cost for equity raising. To include for a cost that will not eventuate is not efficient.

The WAMEU considers that ERA should not permit WP allowance for a cost that does not occur. The WAMEU accepts that there are costs incurred in raising debt if the entity has to seek debt on the open market. The approach used by WP for providing for its debt needs obviates the need for debt raising costs. In the case of equity raising costs, WP should only be allowed for the costs in raising equity if it actually incurs costs when raising funds for its equity share of new capital expenditure.

5.8 Conclusions

The ERA is charged with developing a series of WACC inputs which are prudent and efficient, but not to include such levels of conservatism that the outcome is inefficient.

From the WAMEU analysis, it is clear that WP has enjoyed considerable commercial benefit from the approach taken by ERA for regulatory period AA2, especially in terms of its return on equity, the cost of the debt it has incurred and the level of gearing it is able to operate at without affecting

the cost of its debt. The WAMEU is most concerned that a continuation of the approach used in setting the WACC for AA2 will continue a significant transfer of wealth from consumers to WP that is not justified in terms of where and how WP actually incurs its costs.

The ERA must not perpetuate this massive transfer of wealth based on the assumption that regulatory certainty is more important than ensuring consumers only pay for services that reflect the efficient costs for providing that service.

As an initial assessment, this submission is of the view that the following WACC parameters should be used for setting the WACC needed by WP for the provision of the services it is required to provide.

Parameter	Value range	WAMEU recommended set point
Risk free rate	Based on the nominal 10 year CGS	
Inflation	Using RBA current data, then trend to 2-3% target range	2.5%
Debt premium	Based on cost from WATC	20 bp
Gearing	To reflect actual gearing	80%
Equity premium	Within the range 5-6%	600 bp
Equity beta	Within the range 0.5-0.80	0.70
Gamma	As set by ACT	0.25
Equity raising	No allowance except where equity is actually raised externally	
Debt raising	No cost as debt facility is already in place from WATC	

6. Capital Expenditure (capex)

Capital expenditure is an essential element of maintaining and augmenting the output of any business. There are constraints on accessing capital for any business, but capital (especially debt capital) is more readily available for businesses with a strong and stable cash flow underwritten by bankable customers of the business. In the case of WP, it has a regulated (and therefore stable and known) future cash flow, effectively underwritten by the tax payers/electricity consumers of WA.

The building block approach to regulatory revenue setting comprises:

$$\begin{aligned}\text{Revenue} = & \text{Asset value} \times \text{WACC} \\ & + \text{capex} \times \text{WACC} \\ & - \text{depreciation} \\ & + \text{opex} \\ & + \text{incentive payments}\end{aligned}$$

This demonstrates that the bulk of the profits a regulated business earns are embedded in the WACC, as all other major elements in the building block (asset values, depreciation and opex) are included in the building block revenue equation at cost.

These two aspects when combined, has the direct effect of incentivising a regulated business to increase its asset base by maximising capex in order to increase its cash profits. As a direct result, WAMEU has an underlying concern that the WP claim for a large increase in capex, might in part be driven by needs other than those of the electricity network.

Therefore, WAMEU requests that ERA ensure that the actual allowances for capex to WP be fully substantiated and be the minimum necessary to address the needs of the network, rather than what appears to be an ambit claim.

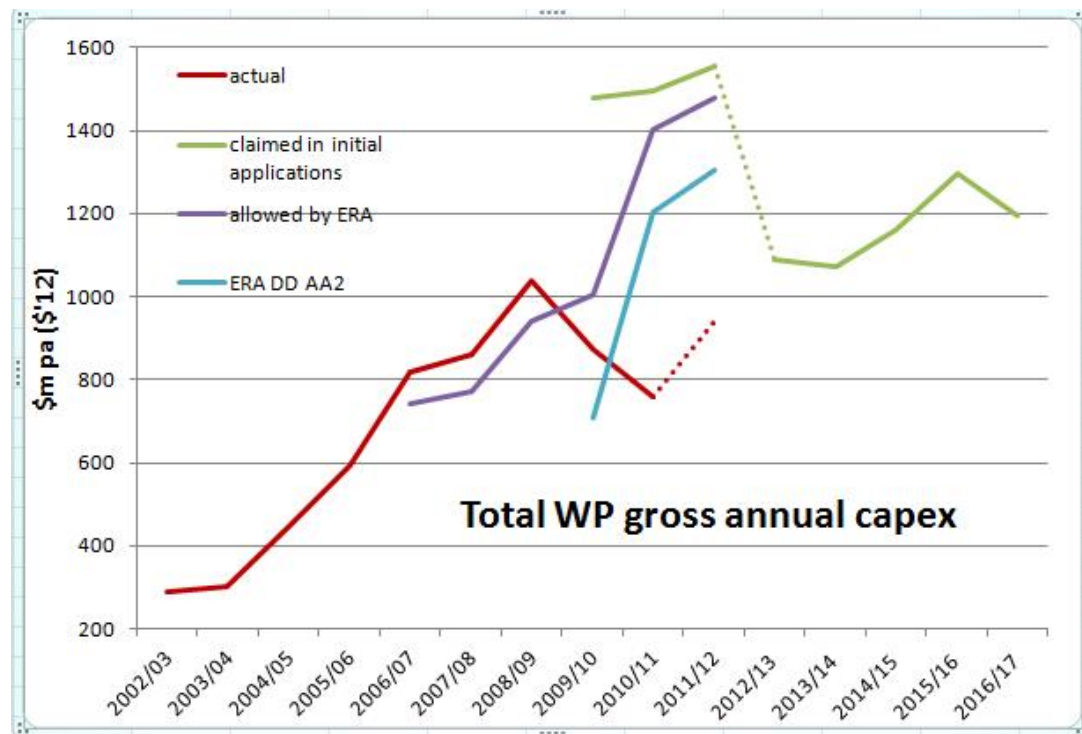
In particular, the WAMEU has noted that the Australian Energy Regulator (AER) for the National Electricity and Gas Markets has identified that essentially the Rules for the National Electricity and the National Gas Markets are structured in a way that provide significant incentives for network providers to over invest in energy transport assets. Accordingly, the AER has proposed a suite of rule changes to the Australian Energy Market Commission (AEMC) to reduce these excessive incentives.

In this regard, it is pertinent to draw attention to the Garnaut Update #8, the Parry/Duffy report for the NSW government and the IPART report on

regulated retail tariffs. All of these reports (released in early 2011) cited the excessive incentives provided networks to invest, especially in the case of government owned networks, where returns on debt and equity provided under the rules were seen as significantly above the costs incurred by the service provider. This is particularly obvious when the AER was providing debt risk premiums of 300-450 bp above the risk free rate, whilst government treasury corporations were providing the debt premiums of about 100 bp or less.

In addition to the incentives to over invest, the WAMEU notes that the AER has significant concerns with the propose/respond model of regulation. The ERA is likewise constrained to use the propose/respond model rather than the consider/decide approach now sought by the AER. The main argument against the propose/respond model of regulation is that the final outcome will be that the regulator is constrained to accept revenue claims that are at the high end of the range of reasonable outcomes, disadvantaging consumers on a consistent basis.

This point is clearly demonstrated in the recent revenue reset by ERA of the WP application made in 2008. Below is a chart showing the initial applications by WP for capex, along with the ERA allowances, the ERA draft decision on allowances and the actual capex.



Source: ERA DD and FD, WP applications

In the 2008 revenue reset process, WP provided an application to ERA which stakeholders responded to. In the process of responding to the draft decision, WP provided ERA with a revised application which the ERA referred to in the draft decision. Subsequent to the draft decision WP provided a further revision to the ERA which the ERA used to finally set the allowances for WP¹¹, and which was not available to stakeholders to review. The chart shows that the initial application was significantly higher than the first revision on which the ERA draft decision was based. The ERA final decision was based on the second revision which was higher than the first revised decision.

In fact, the actual capex was significantly below all of the forecasts provided by WP and the ERA draft and final allowances. From this, a number of conclusions can be drawn:

1. WP has obvious difficulty in actually determining its expenditure needs and quantifying the costs of these
2. The ERA is constrained to use the proposals (which were revised at least twice) by WP even if the ERA has a view that the claims are at the high end of reasonable.

The WAMEU considers that the ERA should review the claimed allowances for capex based on what the ERA considers is an appropriate amount, based on the past performance of WP rather than to continually being exposed to changing claims by WP and which also prevents stakeholders from having the opportunity to properly assess the claims.

7.1 An overview

WP provides for its capex forecast in two sections – transmission and distribution. By following this process it tends to distract from the enormity of the expenditures WP is seeking. As the following chart shows actual capex to the June 2011 was at a level of \$760m pa, well below the capex used in the previous three years, despite convincing the ERA that it needed capex nearly twice this. WP is forecasting an increase in capex for 2011/12, which would take it a little above the long term average of \$880k pa.

¹¹ This process effectively prevented other stakeholder involvement in the process. The WAMEU considers this is not good regulatory practice. Further, the WAMEU notes that the AER proposes to prevent this practice by its proposed rule changes currently being addressed under the AEMC processes.

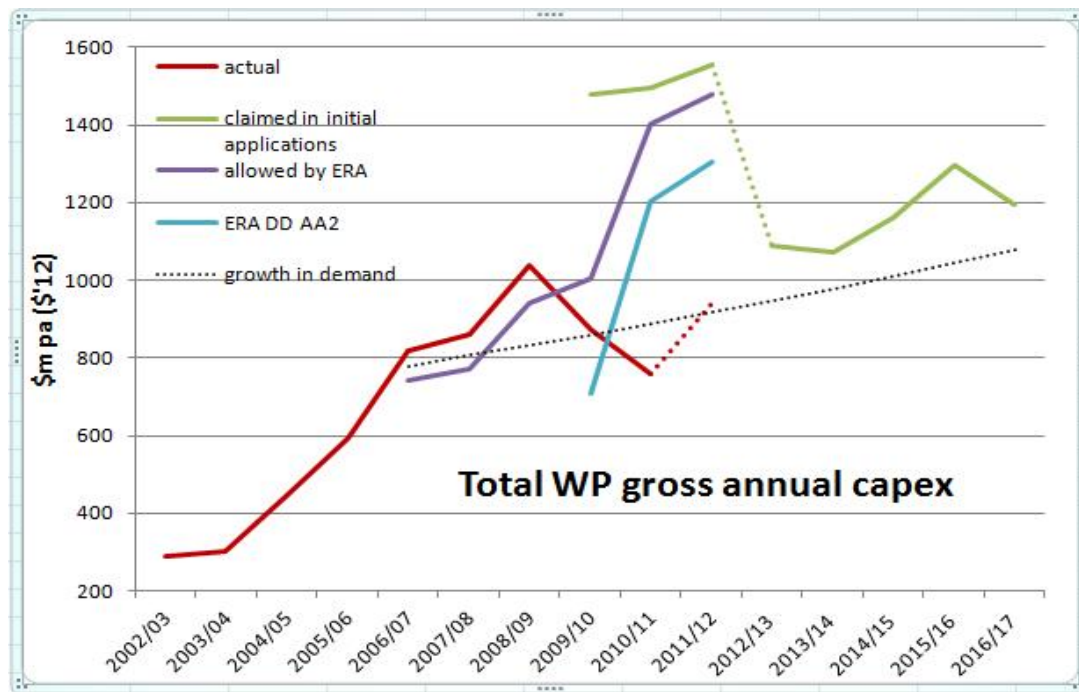
It is widely accepted at a technical level, that the size of assets (and therefore costs) needed for electricity transport systems reflects the demand in a system rather than consumption, although asset growth in distribution systems is influenced by numbers connected and therefore is also influenced by consumption. That this is the case is typified by WP (and all other electricity service providers) using increases in demand as the main basis for their capex programs, with some emphasis on replacement of assets. Regulators, too, accept that it is demand that is the prime driver for the cost of the assets used.

For the sake of clarity, the growth in demand over the period is related to the amount of capex in year 09/10 and the 50% PoE IMO forecast of growth in the 2011 SoO is used for extrapolation¹². This growth line also crosses the estimated capex for 2011/12

What this shows is that the levels of capex in the early years of the decade have grown massively when compared to the growth in demand and this trend was most obvious for AA2. WP had convinced the ERA that major increases in capex were required in AA2 but the actual needs for AA2 were less than the actual capex used in AA1. In its responses to the ERA review, the WAMEU suggested that the levels of capex for AA1 were adequate for AA2, as the capex for AA1 was already a considerable increase on earlier capex levels. With the benefit of hindsight, the WAMEU view has been confirmed. This supports the WAMEU view that historic actual capex is a good guide to future reasonable capex levels.

What is also important to note is that despite much lower capex than was allowed, WP provided a service which generally was better than the targets set for them, implying that the lesser amount of capex invested did not adversely impact on service performance.

¹² The IMO 50% PoE forecast for the next five years reflects the growth in peak demand over the past 3-4 years so it is consistent with recent moves. AAI table 19 is consistent with this IMO forecast.



Source: ERA DD and FD, WP applications

Extrapolating the current (inflated) levels of capex based on expected growth to the forecasts for AA3 show that WP is still seeking well above reasonable levels of capex.

Throughout the WP application (and a general observation that can be made for all electricity networks) is that replacement of assets is becoming a greater issue as the networks are ageing. Equally, the large amounts of capex that have been invested in the networks have resulted in a lower average age over time. At the same time as network owners are advising on the need to replace assets (and thereby increase capex claims) due to ageing of the network, the proportion of capex that is devoted to asset replacement has been modest. For example, the replacement capex in AA2 was just above 20% of all capex (see table 1 appendix B1).

There is clearly a disconnect between the rate of growth in peak demand and the rate of increase in capex for growth as capex for growth is clearly and consistently higher than the actual growth in peak demand.

The chart also shows that WP significantly underspent its allowed capex and by doing so made a large profit. Based on the estimated capex for 2011/12 being correct, WP will garner an additional \$237m in profit from the underspend in capex— this is about 5.5% of the allowed revenue for AA2. In addition to the return on the unspent capex, WP probably received

another \$40-50m in depreciation cost recovery on capex that they never incurred.

It is noted that WP will return some of this cost under the incentive scheme, but the amount that WP proposes to return is a very small share of the overall benefit they received.

In its response to the WP application for AA2, the WAMEU highlighted that the amount of capex that WP sought was a massive increase on previous actual capex, and the WAMEU raised concerns that WP would not be able to spend the amount it claimed. What has occurred is exactly what WAMEU feared – that WP would be granted a capex allowance well in excess of its ability to implement, and that consumers would be levied on the costs that would not be incurred.

In its application for AA2, WP claimed a capex need of some \$1500m pa, and the ERA awarded an allowance of some \$1300m pa. The actual capex (including the estimated amount for 2011/12) was less than \$900m pa, a very wide difference. The AA3 capex claim from WP is \$1160m pa, an increase of 32% above the amount that WP is likely to implement in the current period.

We have noted that the ERA has tended to accept the revisions to capex claims made by WP throughout the revenue reset review process. We have also noted that WP consistently develops its capex claim from a “bottom up” approach. What the ERA is expected to do is apply a “top down” limitation on the capex claim, just as a board of a business operating in a competitive environment would do as this is normal commercial practice.

This point is a critical element of the regulatory process as the regulator is supposed to replicate the competitive pressures faced by businesses operating in a competitive environment. The AER, in development of its proposed changes to network regulation, held recent discussions with representatives from industry that is exposed to competition. In relation to setting capex, Mr Milo Foster, Vice President of Kimberly-Clark Australia, made the following observations to differentiate private industry from regulated industry in the treatment of capital expenditure and assets:

- “Developing the amount of capex that business can invest each year needs to reflect that in a competitive environment there are limits in its actual raising and what capex a business can afford and remain competitive. This compares to the regulated businesses (especially

government owned) being able to essentially develop their capex wish list without this constraint

- Deciding on what projects the capex will be devoted to and why (eg maintaining market share, new products, reducing costs, deferring projects without impacting the business). This compares to the regulated businesses approach of limited oversight of what is really needed and still remain commercially viable in a market sense
- Developing a business case to underpin the amount of capex every project is limited to. The RIT-T and RIT-D are intended for this purpose, but they are limited in their application to large augmentation projects – reliability of supply and small projects do not have this oversight
- Ensuring the capex used for a project remains within budget and if not why not. The issue of what should be done to manage/accommodate any over-run (eg deferring other projects to maintain the overall capex limit) is a constraint that has to be managed. This compares to the regulated business which is not assessed after the event, with the actual capex being rolled into the asset base, even if there is a major overspend, which if the actual cost had been known earlier, the project would not have passed a prudence test
- Ensuring the capex is spent wisely such as by maximising competitive tendering and changing the capex parameters so that the budget is maintained. This compares to the regulated business being allowed to use related parties to run capex programs without competitive tendering and not being forced to limit the overall capex to the amount which has been determined as the upper limit
- Adjusting the asset base so that the correct value for each asset is included (ie that each asset is optimised, redundant assets are cleared, and retaining depreciated assets that are still used and useful). This compares to the regulated business which is not required to assess whether an asset is operating at the level assumed in the capex development or at the level expected by the value of the asset
- Closures of unproductive elements of the asset base and writing off the undepreciated value against profits is essential, This compares with the regulated business, which is not liable for assets that are unproductive and so retain these in the asset base in order to receive continuing revenue.”¹³

The AER was very appreciative of these observations and has gone some way to implement them in their proposed new network regulation rules.

¹³ Mr Milo Foster, Vice President Kimberly Clark Australia: Address to AEMC Conference on Strategic Priorities for Energy Markets Development 2011

The WAMEU considers that the ERA should implement similar features into the review of WP's AA3 and by doing so it could avoid the massive under-run in capex that occurred in AA2.

Overall, the capex program proposed, as well as being a significant increase in the current capex program, does not reflect the actualities of the current actual capex program. WP has observed that one of the reasons for the planned capex for AA2 never eventuating, is that funding from Treasury was not available. In appendix B1, WP observes:

"After the Authority's final decision, we also faced significant uncertainty in relation to available funding for the forecast work program in 2010/11. The funding provided for in the state budget was less than that required for our investment program as supported by the Authority for the AA2 period. We engaged with the Department of Treasury to obtain the additional funding. This uncertainty resulted in considerable review of the work program and led to delays in many projects and programs."

What this observation really says is that WP convinced the ERA that it needed more capex (a "bottom up" based claim) than it was able to secure (a "top down" control). Whilst the WAMEU knows that top down controls do exist in the competitive world, the ERA and WP omitted to accept this reality and as a result, consumers have incurred considerable but ultimately unnecessary costs.

The WAMEU considers that a more sound approach is that the ERA seek assurances from Treasury as to the amount of capital that it will permit WP to have access to for its capex program. This would then provide some guidance as to what "top down" controls need to be put in place for AA3.

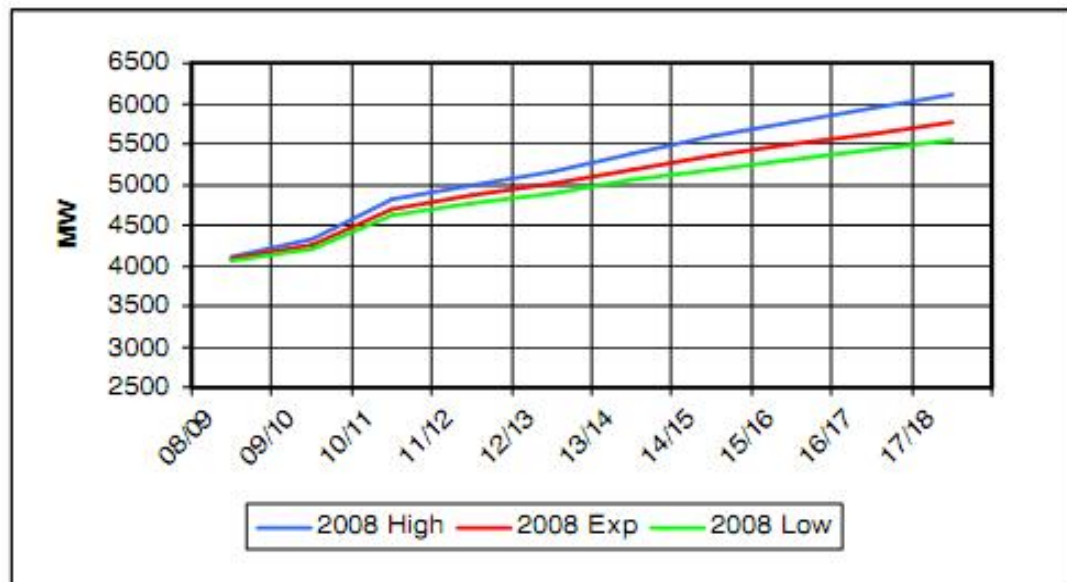
One of the best tools for providing a "top down" assessment of capex is to use past actual expenditure and use this as a starting point, with adjustments made for changes in growth and "step changes" that have occurred between the past actual and the expected future period.

One of the most telling elements in such an approach is that the growth forecast by IMO for the AA2 period, has been significantly reduced for AA3 period. For example, the 2008 forecast of 10% PoE for 2012/13 was some 5200 MW yet in the 2011 SoO, the 10% PoE for 2012/13 is 4700 MW. This tends to support the WP observation that it did not need to invest to the extent forecast in the AA2 review as the growth forecast did not eventuate.

In fact, the 2011 forecast growth for much of AA3 is some 10% less than the forecasts made in 2008. This additional “top down” approach tends to support the view that the current actual rate of capex used in AA2 is probably adequate for AA3.

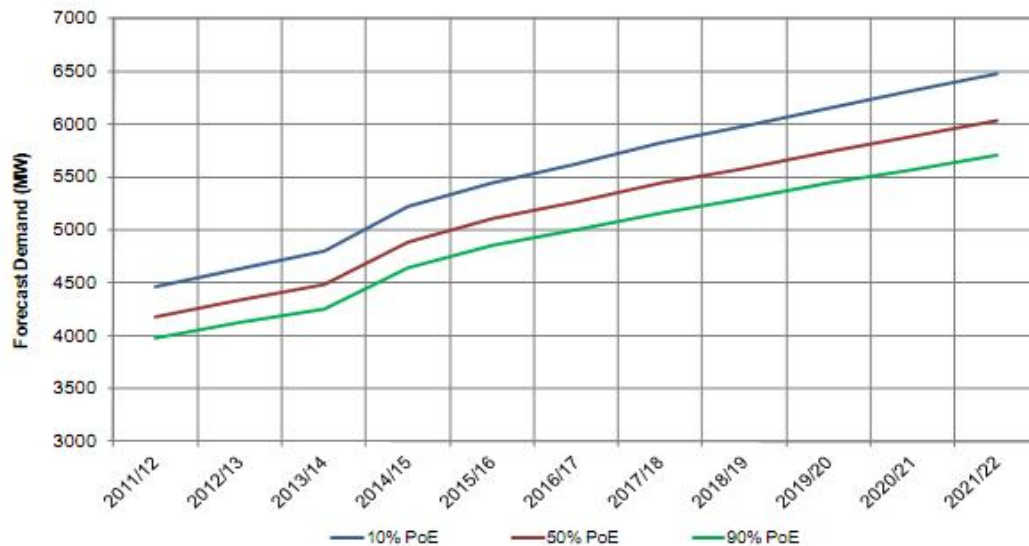
The following extracts from the 2008 SoO and 2011 SoO show this.

Figure 16- Impact of Economic Growth on Maximum Demand for the 10% POE Forecast



Source: IMO SoO 2008

Figure 21 – Forecast Maximum Demand – Expected Economic Growth



Source: IMO SoO 2011

In total, WP is forecasting that it will increase its AA2 capex by over 30% for AA3. Yet at the same time, growth in both demand and consumption is only forecast to grow by 3.3% and 2.5% respectively¹⁴. This then raises the fundamental question as to what WP is seeking to achieve with its expanded capex program – it certainly cannot be growth related! The relative increase in demand using a base of year 02/03 shows that capex has far outstripped growth in demand.

Other reasons for capex are to improve reliability, quality and sustainability of the service, but analysis of the WP AAI documents for AAI 1 and AA 2 indicates that much of the capex for AAI 1 was for growth assets, and little was for replacement of assets that would increase service performance. The forecast for capex in AA3 continues this trend, and perhaps even devotes less in capex proportionate terms to replacement than in previous access arrangement periods.

What has been totally overlooked within the planned capex program is the ability of consumers to pay for the large increases. It appears that WP has not employed commercial reality in its plans to grow the WP business. Commercial reality is that a firm will only invest if the market growth shows there is a need and that the market can withstand any increase in costs. WP has already shown that its current capex program has managed to

¹⁴ Derived from WP AAI tables 19 and 26

address the significant growth experienced in the current period, and the WAMEU accepts that a similar capex program might be needed for the next. What is not accepted is that the capex program needs to be expanded by as much as WP is seeking.

Even though it was capex constrained by WATC in AA2, it is quite clear than WP did not need all the capex it initially sought and granted for the growth it claimed would occur. The forecast growth for AA3 is much as actually occurred in AA2, so there is no driving need to increase growth capex above what occurred in AA2.

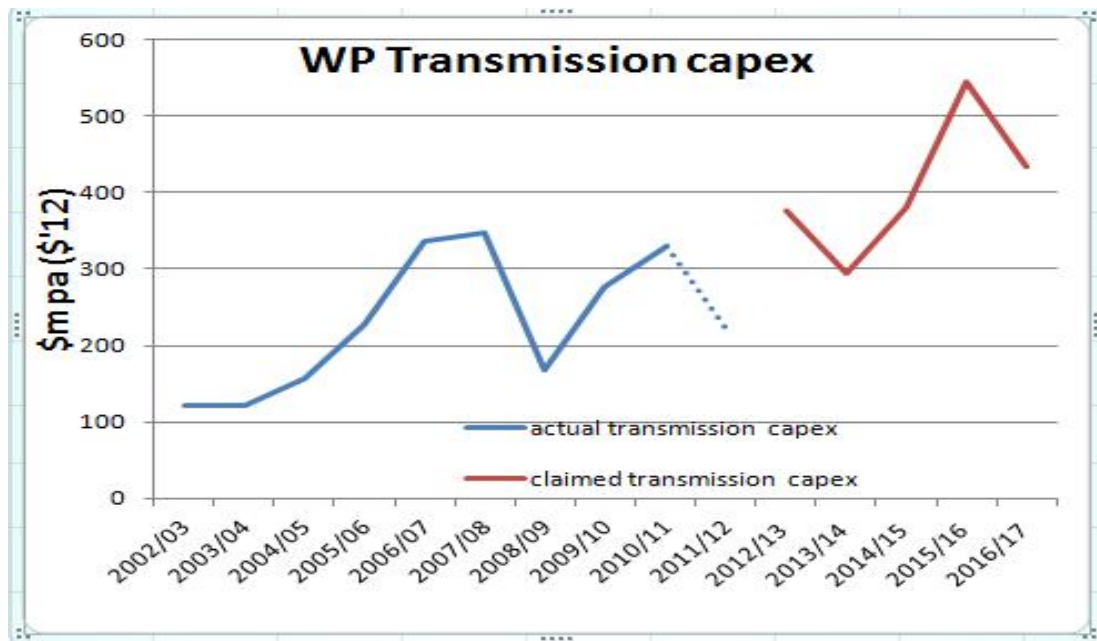
Capex also can be used to improve service standards and WP provides an indication of the likely service standards consumers will enjoy as a result of its capex program (see Section 8 below for analysis of WP's service target incentive scheme). These show that there will be some lesser performance as well as some improved performance with an overall lessening of service standard targets. But a fundamental question remains: **does the proposed marginal change in service standards match the massive capex program WP is seeking?** In fact, WP was able to provide a better service performance with its current capex program, which also met the needs of the actual growth identified in AA2. Growth will be much the same in AA3 but WP is intending to significantly increase its capex to provide for a similar rate of growth but proposes to deliver a lesser service.

WAMEU notes that WP proposes to change the assumed time of expenditure on capital from the end of a year (as in AA2) to be assumed to occur in the middle of the year as is done by the AER. In principle, WAMEU does not object to this but does recognise that such a change will improve the cash flow benefit to WP. With this in mind, the WAMEU recognises that the allowance for the provision of working capital needs to be changed to reflect the change in timing. The WAMEU considers that this change should effectively result in WP being provided with no allowance for the provision of working capital.

7.2 Transmission capex

The chart below shows the actual capex incurred in AA1 and AA2 periods along with the claimed capex for the AA3 period. Because the information provided by WP in the application regarding actual past capex does not separate corporate capex but it does for AA3, the chart shows transmission capex for AA3 plus one third of corporate capex¹⁵ for AA3.

¹⁵ This share of corporate capex reflects the ratio of transmission capex to distribution capex.



Source: WP AAI 1, AAI 2 and AA3 documents

The chart clearly shows that the average capex for AA2 was about \$275m pa but rises to over \$400m pa in AA3. WP provides a statement on the under-investment for the entire period, but not on an annual basis. This means that with the data provided, it is difficult to show trends for each major category of growth, non-growth and corporate, and relate these against the WP plans for AA3.

In its application for AA2, WP observed that:

“...there are four principal drivers of increased expenditure compared to historic levels. These are:

- the unprecedented growth in electricity demand and the connection of additional generation capacity;
- the on-going impact of previously constrained expenditure;
- more onerous safety, health, and environmental regulations; and
- the continuing increase in unit costs, particularly in light of the resources boom in Western Australia.

Despite this WP actually expended 58% less than allowed for transmission. The forecast growth for AA3 is much the same as the actual growth for AA2 and WP was able to manage the actual growth with about

\$275m pa of capex. It is difficult to accept that WP will need nearly 50% more capex to manage the same growth as occurred in AA2.

An increase in regulated allowances needs to be justified by step changes that have occurred and impact on the regulated business. Otherwise, there is an assumption that the previously allowed regulated capex would match the needs of the regulated firm.

Among the reasons given for the increases in transmission capex for AA3 was that there were constraints on the funds available to WP in AA2. This reflects the reality highlighted in the advice Mr Milo Foster of Kimberly Clark gave the AER when he presented them with his views on “top down” controls of capex (see section 7.1 above). That even with the “top down” control imposed on WP by government finances, WP was able to successfully manage the actual growth in demand and even enhance service standards, implying that the current levels of capex are appropriate for the growth expectation for AA3.

WP had a form of incentive on its capex to allow it to benefit from under-runs from allowances. This means that the ERA should recognise that the actual performance of WP in AA2 provides a sound basis to set AA3 transmission capex but allowing for defined step changes.

In its commentary on the capex program WP advises that its “...capital works program is an economically efficient and deliverable program...” (AA1 page 170). If this statement is true (and the WAMEU has no reason to doubt it) then it implies that the past performance of WP in AA2 should be used as the basis for setting the future capex needs.

WP comments that parts of the transmission assets are “elderly” and require replacement, yet of its forecast transmission capex, over 80% is dedicated to growth projects, implying that the replacement program is a relatively modest component of the overall capex.

There is a clear disconnect between what WP says and its actual proposal. Forecast growth in AA2 resulted in ERA awarding a considerable increase in transmission capex for the period. The lower actual growth in AA2 was managed by a lesser usage of capex in AA2, resulting in a considerable underspend in AA2 transmission capex. If growth in AA3 is forecast to be the same as in AA2, it implies that the actual capex program for AA2 should be able to manage the forecast needs, rather than the considerably increased transmission capex being claimed. It is quite apparent that the bulk of the increased transmission

capex claim for AA3 is to address growth related projects, yet growth is the same as in AA2. The ERA needs to resolve this conundrum.

In its response to the WP application for AA2, WAMEU commented:

“The WAMEU considers that at most the current level of actual capex at an average of \$350m pa should be more than adequate to match the pressures on WP to provide transmission capex ... There is neither the growth forecast, nor an increased need for replacement that can be argued for a doubling of the current levels of capex.”

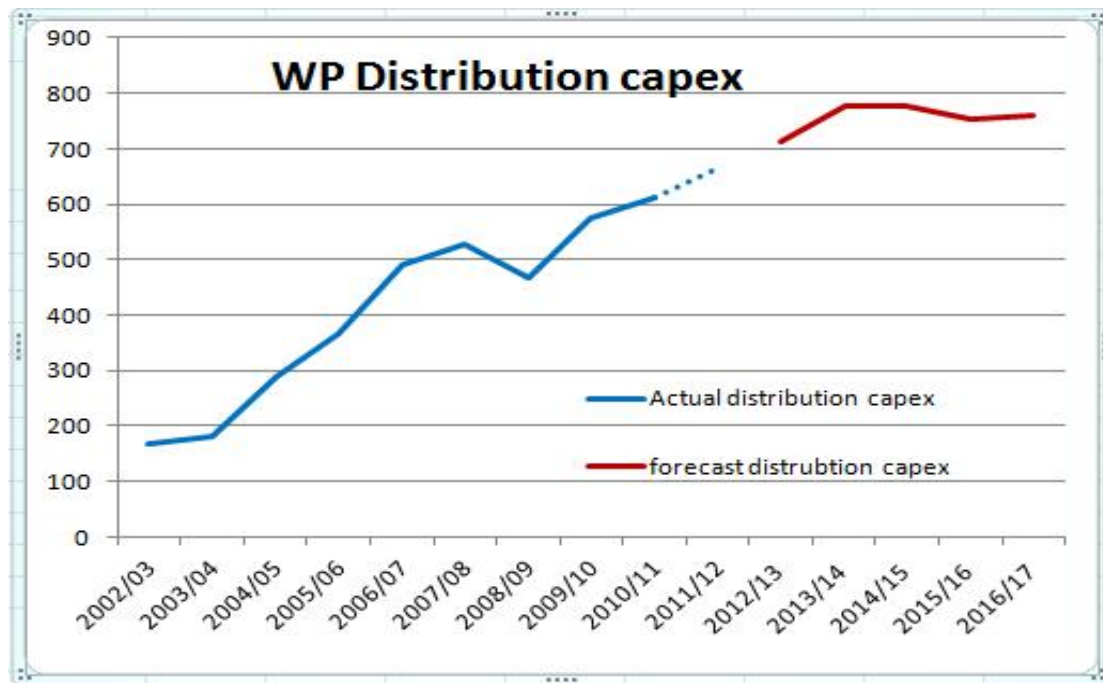
In fact, WP used about the amount of capex that WAMEU suggested was an appropriate amount for this purpose. The WAMEU does not consider itself to be prescient in this regard, but developed its view based on historical trends and the perceived needs. That ERA allowed WP much more capex than this, and that it was not used, based on WP arguments reflects the fact that the ERA is not imposing “top down” controls on WP that would reflect what occurs in a commercial environment.

The WAMEU considers that ERA should allow WP the actual transmission capex used in AA2 as the basis for capex into AA3, adjusted for identifiable step changes that WP must now accommodate, and for the reasonable escalation of costs escalation of costs that will impact over the next five years.

7.3 Distribution capex

The chart below shows the actual capex incurred in AA1 and AA2 periods along with the claimed capex for the AA3 period. Because the information provided by WP in the application regarding actual past capex does not separate corporate capex (but it does for AA3), the chart shows transmission capex for AA3 plus two thirds of corporate capex¹⁶ for AA3.

¹⁶ This share of corporate capex reflects the ratio of distribution capex to transmission capex.



Source: WP AAI 1, AAI 2 and AA3 documents

The chart clearly shows that the average capex for AA2 was just over \$600m pa but rises to over \$750m pa in AA3. WP provides a statement on the under-investment for the entire period, but not on an annual basis. This means that with the data provided, it is difficult to show trends for each major category of growth, non-growth and corporate, and relate these against the WP plans for AA3.

WP actually expended 18% less on distribution capex than it was allowed in AA2. Unfortunately, WP does not provide a breakdown on where the under expenditure was incurred other than to state they were related to growth, especially in transmission. WP provides a statement on the under-investment for the entire period, but not on an annual basis. This means that with the data provided, it is difficult to show trends for each major category of growth, non-growth and corporate and reflect these against the WP plans for AA3.

As with transmission capex, as distribution capex was related to an incentive program, actual capex should be seen as benchmark performance. In fact, WP seeks an average 25% increase in distribution capex for AA3 above the AA2 average even though WP avers its capex program is efficient.

As the current actual performance should be assessed as the efficient benchmark for capex needs, it is reasonable to assess the future

distribution capex needs based on AA2 performance, but with step changes and reasonable escalation of costs.

In AA2, 60% of the actual distribution capex was related to growth projects with about 25% related to asset replacement. The AA3 forecast states that 50% of the capex will be for growth and one third for asset replacement.

This implies that there will be much the same commitment to growth capex as applied in AA2, which reflects the fact there is expected to be much the same growth in AA3 as applied in AA2.

However, it also implies that much of the increase in capex will be devoted to asset replacement in AA3. WP advises that more than half of its replacement program will be devoted to the pole replacement and reinforcement program which is needed to meet the requirements of Energy Safety order (O1-2009). This would appear to be a step change.

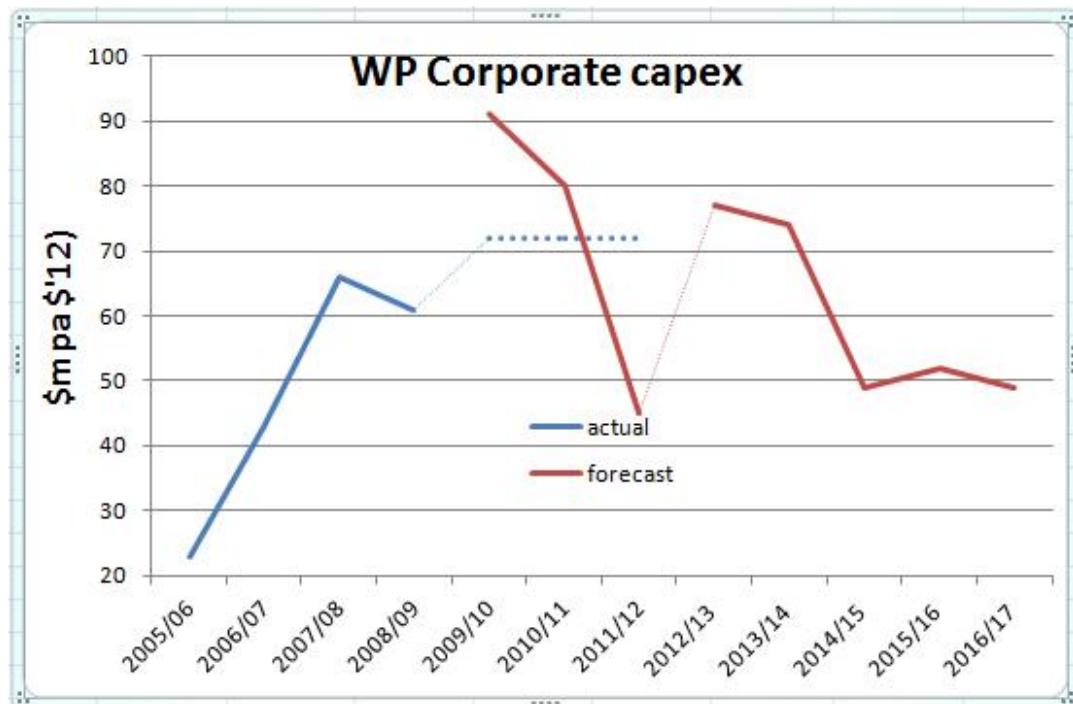
On page 204 and 205 of the application AAI, WP notes a number of other justifications for the increase in the AA3 distribution capex. When examined, these should not be considered to be step changes, as they refer to programs that WP must already have in operation or relate to requirements imposed before AA2.

If the performance of AA2 is to be used as the start point of AA3 capex, then it is necessary to identify what elements of the AA2 capex are “one off” activities that should not be assumed to be continuing activities in AA3. Unfortunately, the information provided by WP does not enable any assessment to be made.

WAMEU considers that the “right answer” for distribution capex lies between the actual performance of AA2 as the base capex and then adjusting for identified step changes (both upwards and downwards that occurred during AA2. Such an approach would recognise that demand and consumption growth is expected to be much the same for AA3.

7.4 Corporate capex

In its previous applications, WP has tended not to separate corporate capex from other capex, but the following chart can be developed from a variety of WP sources, including the applications for AA2 and AA3. This chart shows the actual capex used for corporate needs (including IT) since 2005/06.



Source: WP AAI from AA2 and AA3

On page 59 of its application AAI, for AA3, WP notes that it overspent the capex allowance on IT by 17% during AA2 and underspent business support capex by 11% yet, overall, it overspent on corporate capex by 23%.

It is clear that the bulk of the corporate capex is related to IT expenditure, that most will be incurred in the early years of AA3 and that this will reduce towards the end of the period.

It is not clear whether the increase in corporate capex is appropriate or is prudent. The WAMEU expects that ERA will verify that the increase in corporate capex is prudent.

7.5 Benchmarks

WP provides a series of charts indicating its performance against its Australian peers and itself over time.

A review of these charts of WP performance over time tends to show that WP is becoming even more expensive than it was in previous periods and this is replicated by the prices implied by its average tariffs that WAMEU provides in section 2 above.

WP also provides a series of charts showing its capex in dollar terms. In the case of transmission, WP transmission capex is forecast to exceed that of all other businesses (even those with larger demands) except for TransGrid and Powerlink, both of which are much larger in size than WP.

The WAMEU considers that the benchmarks for transmission capex support the WAMRU view that the WP transmission capex is too high and needs to be reduced.

As with transmission capex, the distribution capex benchmarking indicates that distribution capex is increasing with time. The comparisons it provides against the other distribution businesses implies that the capital expenditure at 2009/10 is efficient for all businesses. This is indeed a bold assumption as the statements made by Garnaut, Parry/Duffy and IPART would seem to provide an argument to the contrary.

Rather than rely on these comparisons, the WAMEU sees that the average tariff provides a much better comparison as to the efficiency of WP compared to other businesses.

7.5 Conclusions

Compared to the very ambitious capex claim made by WP for AA2, the claim for AA3 is more reasonable but still quite ambitious, especially for the transmission capex. The WAMEU considers that there is considerably more work needed to justify the step increase in transmission capex of \$125m pa and it is of the view that the distribution capex is probably still overstated but not by as much as transmission capex.

WP provided a listing of the drivers for its planned capex program but upon analysis of these, there is not much change from those applying during AA2 and WP has set its own capex benchmarks for the AA2 period. Comparative benchmarking (its own and external) indicates that WP capex for both transmission and distribution is likely to be on the high side of reasonable.

What is concerning is that WP has advised in its application that it considers there is more capex that needs to be added to address a number of new features, including interval metering at Verve sites, noise mitigation, the impact of the cost of carbon and impending energy safety measures.

The WAMEU considers that even with the reductions it considers are needed to the forecast capex, these additional requirements (if they eventuate) should readily be accommodated in the base capex. For example, the impact of the price on carbon should not impact WP directly, but may impact the cost of materials it acquires. However, this cost impact is already built into the escalation element of the application.

The WAMEU recognises that new legislation will impact on WP, but businesses operating in the competitive sector will have to absorb these cost impacts as they are unlikely to be able to pass these costs onto their customers. Competitive business has to find ways of managing these costs, and expects that WP should be expected to do likewise and not just expect to automatically pass them onto its customers.

WAMEU considers that the ERA should undertake its own comparative analysis of the WP claims for capex, particularly benchmarking WP against its own historic performance. When such an analysis is completed ERA will find that the WP claims for capex are likely (in our estimate) to be between 20%-30% too high!

7. Operating Expenditure (opex)

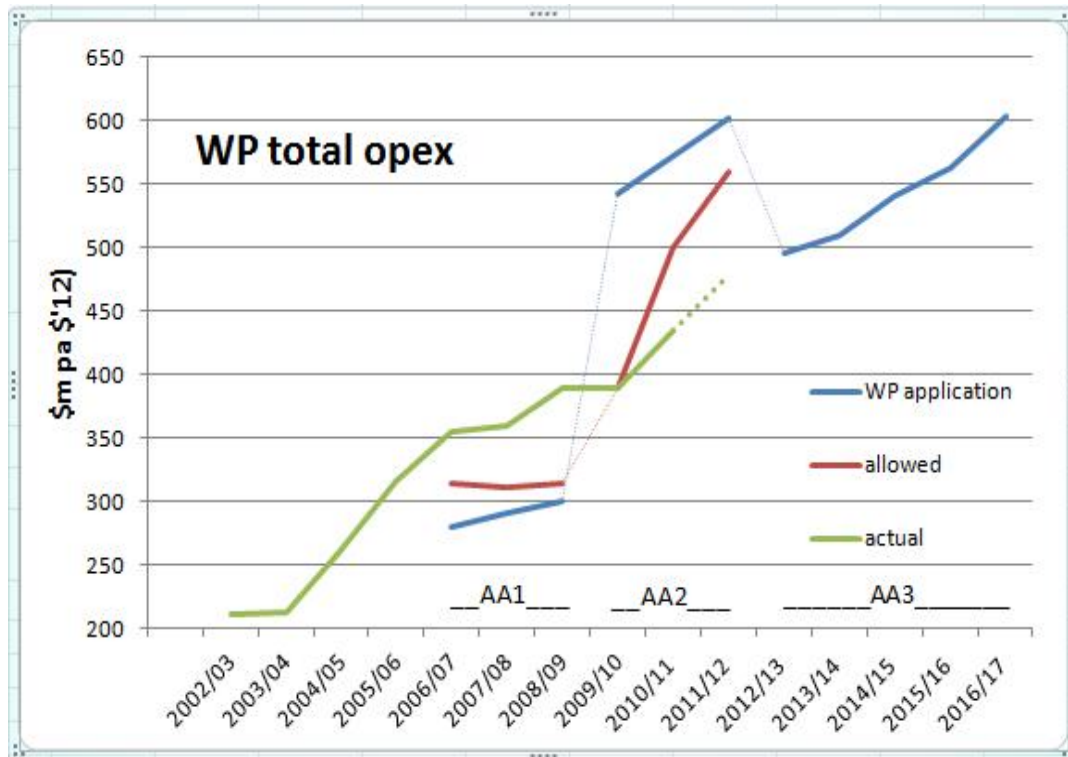
7.1 An overview

WP provides for its opex forecast in two sections – transmission and distribution. By following this process it tends to distract from the enormity of the task WP is proposing. As the following chart shows actual opex up to and including AA1 was less than \$400m pa, which had risen from a level of half this amount incurred in 2003/04.

For the sake of clarity, the growth in inflation over the period is related to the amount the amount of opex in year 02/03. What this shows is that from 02/03 to 16/17 inflation is expected to grow by ~40% whilst opex will grow by ~300%, a ten times premium over inflation. There is a clear disconnect that must be investigated.

Essentially, in its responses to the WP application for AA2 and the ERA draft decision for AA2, the WAMEU had recognised that the AA1 allowances for opex were low and supported an increase in the allowances, although not to the levels sought by WP in its application for AA2. Whilst it is important to note that during AA1, WP significantly overspent its regulatory allowances, it is important to note that WP, in its application for AA1, had sought opex allowances considerably below the levels of opex it eventually incurred. That the ERA granted WP more opex for AA1 than WP initially applied also needs to be noted.

These observations are included in the following chart showing WP total opex as well as showing actual opex since 2002/03.



Source: WP AAI 1, AAI 2 and AA3 documents

The chart shows that in setting of opex allowances for AA2, the ERA was greatly influenced by the claims of WP. The chart also shows that the WP claims and the ERA allowances were greatly overstated compared to the actual needs of WP. The cost to consumers of this over-allowance in opex is addressed in section 1.3 above.

The chart also highlights that WP significantly under estimated its opex needs for AA1 and then significantly over-estimated its opex needs for AA2. As a result, there is a lingering concern about the ability of WP to accurately estimate its opex needs.

WP has forecast its total opex needs by identifying the base level of opex incurred in 2010/11 in the following terms:

- Total recurrent network base cost \$251.8m
- Total non-recurrent network costs \$36m
- Expensed indirect network costs \$44.9m
- Corporate costs \$102.5m
- **Total opex cost base \$435.2m**

To this WP has added step changes and one-off adjustments, provided for network growth, customer growth and input cost escalation to provide an outcome which is 10% higher in real terms for year 2011/12.

Whilst this style of approach has been used extensively for assessing future opex needs when there has been an incentive program to drive towards efficient costs, there are some other factors that have to be incorporated into the process which WP seems to have overlooked.

The first of these is to demonstrate that the recurrent network base reflects negative step changes, does not include any non-recurrent costs, and any other direct and indirect costs that were specific to the year being used as a base. It is also important to be able to demonstrate that the recurrent network base cost is reflective of the costs incurred in other years to show that it has not been inflated just because it is to be used as the base year.

For example, the opex allowance includes for the provision of network support costs. The network support costs included in the base year may have been obviated by specific capital investment and therefore the recurrent base may be inflated by a cost that no longer applies. In its application WP notes that it provides network control services at both transmission and distribution levels, and that these are provided to obviate the need or defer capital expenditure. There is no justification given for the provision of these network control services, nor whether these are new requirements or carryovers from earlier years.

Another example is that WP has been carrying out replacement and reinforcement of its wood distribution poles. WP notes that under its AA3 pole program this will be an increase in the rate of replacement of some 40%; replacement in AA2 was twice the rate of replacement in AA1. The outcome of this replacement program must be reflected in the opex as a negative step change, but WP makes no allowance for this in its opex recurrent base cost.

WP notes that it has adjusted its base cost to reflect actual recurrent costs, but there is no evidence that this has occurred as the base cost used is the same as the recorded base cost of 2010/11 and other subsequent adjustments are all upward.

Prima facie, the WAMEU is concerned that WP may well have inflated the base cost because the step increase between the base year and the first year of AA3 exceeds 15% in real terms and nearly 20% in real terms over AA3. Such large step increases are very unusual.

The WAMEU notes that its assessment of the network opex cannot be more than general because the information needed for an in depth assessment is not provided by WP. However, the WAMEU does expect that the ERA (or its technical consultant) will ensure that the base year recurrent cost reflects a true set point for recurrent costs.

7.2 Increases from the base operating expenditure

The average network actual annual opex for AA2 is \$435m pa (in real terms) assuming the forecast for 2011/12 is correct. The average annual real opex for AA3 is \$543m, an increase of 25%.

Analysis of the increases above the 2010/11 network costs to set the starting opex for AA3, shows that to reach the average AA3 real annual opex of \$542m pa, the real 2010/11 opex needs the following real annual average additions of:

Cause	\$m pa real	% average increase from 2010/11
Recurrent cost	\$252	
Step changes	\$5	2%
One off additions	\$5	2%
Managing expected growth	\$34	13%
Managing customer growth	\$3	1%
Total recurrent cost increase	\$47	19%
 "Other" costs	 \$183	
Non-recurrent costs	\$9	5%
Expensed indirect costs	\$7	2%
Corporate costs	\$9	5%
Input cost escalation	\$36	20%
Total "other" costs	\$61	33%
 Total opex	 \$435	
Total increase	\$108	25%

7.2.1 Step increases

It is important to note what has caused these increases.

For example, 60% of the step changes relate to the addition of costs for distribution emergency corrective work which WP advises was not typical in 2010/11 as the outcome was too low. WAMEU agrees that some activities in the base year might not be representative of a typical year but

as noted in section 7.1 it is also necessary to adjust for activities which are not typical in that they were too high as well as those which are too low. WAMEU expects that these would balance out over a large range of activities and to select those which are too low is not how using the “base year process” is intended to operate.

Another step change appears to reflect double counting. WP has claimed a blanket increase in customer numbers but also added for additional meter tests. Another step change claimed is in transmission SCADA and communications adding \$2m pa. This work was carried out in AA2, so WP needs to justify why by spending capital in AA2 for new SCADA, the opex for AA3 has to increase. Surely the justification for the new SCADA would have resulted in lower opex to pass the NFIT.

With the information provided it is difficult to assess why any of the step increases claimed are true “step changes” and that they were not offset by reduced costs.

7.2.2 One off adjustments

WP claims that it requires some \$9m pa for the first three years of AA3 to “address a backlog of pole conditions”. The WAMEU has two observations regarding this.

The first is that the capex program has a significant allowance for pole replacement and reinforcement and this is a carryover and enhancement of similar programs in AA1 and AA2. As the pole replacement and reinforcement program is implemented, then the safety and security of the pole lines is enhanced. This would mean that preventative conditioning of poles should be reducing, not increasing as is implied by the request for this additional expenditure.

The second is that presumably this work was to be carried out in AA2, yet was not done so – this is why there is a backlog. There was a considerable under-run in opex in AA2 when presumably this work was intended to be carried out. For WP to retain the significant benefit from under-running AA2 opex (partly because this pole conditioning was allowed to be done but was not carried out) and then request a cost increase for clearing the backlog it effectively created, is essentially requiring consumers to pay twice for the same work (which is still to be undertaken). This is simply not acceptable. Consumers have already paid for this work (and other work) to be done so this is not an acceptable claim.

WP indicates that it will be exposed to cost increases from the national carbon emission policy and projected EnergySafety measures. The WAMEU would expect that ERA will provide clear advice about how WP should adjust future needs for impacts from exogenous changes. However, as a matter of principle, the WAMEU does not consider that these impacts should be considered to be step changes because there can be no quantification of any costs, nor that they will exceed a level that warrants the reopening of the revenue allowances. WAMEU members have also been exposed to the impact of exogenous changes and in their experience competition pressures do not allow for these to be recovered.

7.2.3 Changes in scale

WP has sought an average annual increase in recurrent opex of 13% to accommodate changes in scale due to network growth.

In the detail on AAI page 135 it advises that line length increases by 1.2% pa, zone substation capacity by 5.93% pa and an increase in the number of feeders by 3.1% pa. From these, WP has developed an opex growth escalator averaging 3.5% pa from 2010/11. This is higher than the expected growth in demand forecast for AA3. This provides the first indication that the WP approach to a growth escalator results in a significant overstatement.

Much of the increase in opex is presumably driven by the capex program for AA3. In section 7.3 below, the WAMEU provides a view on the inter-relationship between capex and opex. However, the outcome of that analysis also indicates that the WP calculation for the impact of growth on the base year opex, is greatly overstated.

Thus on a quantitative basis the escalator appears high but also on a qualitative basis. Deeper analysis supports this conclusion.

For example, the biggest percentage increase is related to zone substation capacity growth.

The first point that WAMEU would make is that this increase in capacity is approaching twice the forecast growth in peak demand, raising the first question as to why on average all zone substations will increase in capacity. Secondly, the WAMEU observes from member's firsthand experience, increases in capacity do not necessarily result in increased opex. The opex for a 20 MVA transformer is only marginally more (if that) for a 10 MVA transformer, yet the capacity has doubled. Increasing the capacity of an existing feeder does not increase the opex for that feeder.

Equally, if a second 10 MVA transformer is added to the first or a new line to a previously unserved area is provided, we would expect opex to increase.

The ERA needs to identify in what way the increased capacity has been provided before it accepts the WP assertion that such a large increase in opex is justified.

WP advises that there is a 3.1% pa increase in the number of feeders. When this increase is examined in context with the increase in line length of only 1.24% pa and the forecast increase in demand, there appears to be an anomaly in the conclusion that opex might increase in proportion. The annual increase in peak demand is forecast to increase at about 4% pa. This means that the forecast opex is expected to increase at a rate of about 90% of the rate of increase in peak demand. As noted in the explanation in section 7.3, opex should not increase at the same rate as the increase in peak demand because the ability to manage increased capacity does not necessarily result in increased opex.

There is no doubt that an increase in line length will result in increased opex. However, an increase in the number of feeders does not necessarily equate to a proportional increase in opex. New feeders are often provided by adding new conductors to existing lines. Two separate feeders can have the same point of connection to transmission and connection point with the same customer.

Growth in the network is a result of growth in customer numbers and increased customer demand. This means there is potential for double counting between growth in network size and growth from customer numbers.

7.2.4 Change in non-recurrent costs

WP claims an average increase in non-recurrent costs of 5% but other than to state what these costs are, does not explain why the costs need to increase from current levels. Each of the activities noted as comprising non-recurrent costs were activities that occurred in AA2 and therefore are not additional to the AA2 cost structure used as a base.

As the cost increases are claimed as a “real” increase, then the increase is not related to general inflation of costs.

The ERA should examine why there is a step increase in these costs.

7.2.5 Expensed indirect costs

These appear to relate to costs incurred in managing the capital works program but this is not made clear. If it is related to the capital works then these costs do not change with the value of the work undertaken. This WAMEU observation would appear to be correct as WP advises that the cost is predominantly fixed with a small variable component. As the costs are provided in “real” terms general inflation is not the reason for the increases.

If the value of the expensed indirect works is a fixed 92.7%, then the bulk of this cost would already be included in the base year opex and the variable 7.3% would reflect changes in the drivers for this cost. The explanation for the escalation of this variable component is that it moves with the growth escalation factor. Yet the amount claimed for this indirect cost displays a step increase from \$44.9m in 2010/11 to a consistent value of about \$52m pa for each year of AA3. This effective step increase of 15% above the 2010/11 value is not explained at all.

If the variable element moves with the network growth factor, then the growth in the 2010/11 value would result in about \$0.1k pa increase year on year.

It appears that WP has increased this element as a step change only from AA2 to AA3.

7.2.6 Corporate costs

As corporate costs are quoted in real terms, general inflation is not a cause for its increase. Despite this, corporate costs exhibit an average 10% increase in above the 2010/11 benchmark and this increase is effectively a step increase from 2010/11 to 2012/13, with costs in later years varying only slightly thereafter.

In the explanation of the costs changes, WP provides some explanation for the movement of some of the costs, but it would appear that these explanations address only a modest proportion of the total corporate costs. In the absence of better information, the WAMEU has significant concern that WP Has overstated the increases in corporate costs.

7.2.7 Input cost escalation

The WAMEU has provided its comments in section 3.5 above.

The WAMEU considers that the input cost escalation calculation is flawed, does not include all of the cost inputs that affect WP (especially by neglecting to include those that are not likely to increase at the same rates as those that are included) and does not appropriately represent the mix of the cost inputs in the proportions that actually incur.

The WAMEU is of the view that the approach used by WP has provided an over-inflated view of the likely cost input variations and by doing so has included an excessive allowance for these inputs.

The WAMEU considers that ERA needs to ensure that the approach used to inflate future costs above general inflation (as measured by CPI) appropriately reflect the actual inputs and the proportions applicable to WP activities.

7.3 The inter-relationship between opex and capex

Although capex and opex are usually independently assessed there is a strong inter-relationship between the two. In fact, the benefit of increased capex for most aspects should result in decreasing opex. Unfortunately, the benefits of capex are rarely fully accounted for in the opex forecasts and there has been little or no recognition in the opex budget from the impact of the capex previously incurred. What consumers see is that opex increases automatically, despite ever increasing amounts of capex.

The WAMEU is of the view that the reason for this upward spiral of opex levels results from the misguided but widely promulgated view by electricity transport businesses that opex *rises as a consequence of increasing RAB*. This is totally incorrect. Based on the experience of WAMEU members, there are three reasons why the RAB increases over time:-

1. By replacement of existing depreciated assets with replacement assets (commonly referred to as refurbishment)
2. By replacement of existing assets with larger assets to reflect an increase in demand (commonly referred to as augmentation assets)
3. By extending the reach of the existing assets (commonly referred to as expansion assets)

When examining the opex implications of each of these reasons for asset base to increase in size, the justification of increased opex can be put into proper context.

(i) Opex from refurbishment

There is no doubt that refurbishment increases the value of the asset base. Replacement of a depreciated asset with new assets will axiomatically result in an asset base increase.

However, the business case for justification of refurbishment is usually presented as a *reduction* in opex. In competitive enterprise such a business case is made on the basis that recovery of the capital will result from the saving in opex, often with a payback duration measured in months, and commonly within two years¹⁷. If this business case cannot be made for allocation of capital, the continuing opex related to keeping the asset in working order is tolerated.

Thus, capex related to refurbishment should result in a significant reduction of opex. This makes some sense as a new asset should require less attention than older assets which have deteriorated to some extent.

(ii) Opex from augmentation

There is no doubt that the replacement of a capital item with a larger unit to accommodate an increase in output will increase the asset base. The replaced item will either be relocated to another point in the business replacing another similar item, held in stock for future use, be sold, or scrapped.

When examining the opex implications of an augmentation, the new item will almost invariably be newer than the replaced item if the asset base is to increase. The issue then is: does the opex requirement for an item increased in size (eg a transformer increased from 10 MVA to one of 25 MVA, or a power line increased in diameter for higher current carrying capacity) require a proportionate increase in opex related to the value of the larger item? The answer to this question is in most cases “only marginally at most”.

It costs much the same to monitor a small transformer as it does a larger one, it may take a little longer to replace the oil, but a larger diameter cable or aerial requires the same amount of attendance as a smaller diameter cable or aerial. Newer equipment should require less maintenance than older plant.

¹⁷ As a minimum the IRR to justify replacement of capital assets requires a value of 25-30% before capital will be made available, and even not then in many cases. Capital is often constrained for firms in a competitive environment and used to maintain market share at the expense of reducing opex.

In sum total, opex from augmentation should result in a modest reduction as a result of an augmentation of assets.

(iii) Opex from expansion

Expansion of the network results from increasing the reach of the network. This could come from increasing the number of equipment items at an existing facility or from providing a service to a new area not previously serviced. Expansion increases the asset base.

Opex from expansion will increase with the asset base, although not necessarily proportionately. There are two fundamental expansion options – embedded in the existing network and external to the existing network.

Embedded expansion, whilst requiring additional attendance, allows the opex increase to be marginal. An example of this is where a third transformer is added to an existing facility. In this case the time for attendance is a marginal increase on the cost to service the existing two plant items. Another example is where a new power line is erected adjacent to an existing power line, or even off the existing towers. In this case the opex cost should be measured as a marginal increase in cost and not a proportionate increase.

External expansion is where the new items are remote to the existing network and the opex costs will be proportionate to the increase in asset base.

(iv) The opex implications from this analysis

It is the mix of capex (refurbishment, augmentation, embedded expansion and external expansion) that will determine the extent of opex reduction or small opex increase. The greater the refurbishment, the greater the opex reduction should be as a proportion of the RAB. Until the regulated business advises what this mix is it is impossible to develop a quantitative view as to the extent that opex should be reduced as a proportion of RAB.

Unfortunately, the graphing of the benchmark for electricity transport businesses shows that the ratio of opex to RAB over time is either constant or at best shows only a marginal fall, clearly implying that the opex granted provisionally by regulators is too high.

To counter this argument, in benchmarking between electricity transport businesses, each avers that their networks are sufficiently different to all

the others to warrant a higher level of opex due to the differences in network density, a different load factor, higher/lower demand and higher/lower population density than each of the others.

7.4 2011/12 opex

In section 3.7.2 of the AAI, WP advises that opex for 2011/12 will be higher than that achieved in 2010/11 which WP proposes to use as the “base year” opex. It comments that the reasons for the increases forecast for 2011/12 are included in section 7 of the AAI.

On examining the commentary in section 7, WAMEU could find little more than the issues it has addressed in section 7.2 about the overall forecast opex. This implies that the forecast for 2011/12 is likely to be overstated as it shows that the opex for this final year of AA2 exhibits a step increase of some 10% but there is little justification for such an increase, with the bulk of the increase being attributed to the:

- 5% increase (\$11.5m) for the “one-off” increase addressed in section 7.2.2
- 3% increase (\$7.9m) from the growth escalators addressed in section 7.2.3
- 17.5% increase (\$6.3m) in non-recurrent costs addressed in section 7.2.4
- 16% increase (\$7.3m) in indirect costs addressed in section 7.2.5
- 7% increase (\$6.8m) in corporate costs addressed in section 7.2.6

That WP has implied that its costs can increase above its nominated efficient level by such large amounts is quite concerning and raises the concern that the 2011/12 costs have been specifically inflated to make the costs for AA3 appear more reasonable.

7.5 Trends in transmission and distribution opex

WAMEU would have liked to examine the trends in actual opex for the transmission and distribution elements of the WP activities to identify where the significant under-run against the ERA allowances for AA2 occurred, but the data provided in the AAI is insufficient for such analysis.

The WAMEU suggests that the ERA should obtain this data from WP and assess the opex performance under these two elements to identify specifically where the WP forecast for AA3 are overstated.

The WAMEU finds that such top down analysis provides a strong indication as to where anomalies occur and also provide a view as to how the forecast can be sensibly derived.

7.5 Benchmarks

WP provided a listing of opex comparators to demonstrate that its opex is efficient when compared to other Australian electricity networks.

7.5.1 General trends

WP provides an indication of its forecast performance relative to its past performance in its figure 38.

Table 38: Comparison of operating expenditure growth with growth in activity drivers

Activity driver	Annual average growth rate in the five years prior to AA3	Annual average growth rate in the five year AA3 period
Customer numbers	2.5%	2.4%
Line length	1.4%	1.2%
Number of distribution transformers	1.8%	3.0%
Zone substation capacity	4.9%	7.4%
Operating expenditure	4.9%	5.5%

What this shows is that AA3 is expected to have fewer customers, less growth in line length but significant increases in the number of transformers and zone substation capacity. Because of this WP considers its faster growth of opex is justified. What is not included in this assessment is that consumption and growth in peak demand in AA3 is expected to be much the same as in previous years.

This raises two basic questions.

1. Why there is such a large expansion of the network proposed?
2. With growth, there is an expectation that costs will reduce due to increases in efficiency, productivity and the better ability to maximise the use of resources?

WP assumes that they provide an argument for increased costs.

WP measures controllable opex against customer numbers and consumption and opines that these show AA3 costs are efficient. In fact, both show an increase in costs in AA3 above previous years. The

WAMEU would expect that such measures would show a natural downward trend (rather than the exhibited upward trend) as the increase in density should result in lower costs.

Generally, the WAMEU considers that the trend data provided supports the WAMEU view that WP is seeking more opex than it needs.

7.5.2 Transmission

WP provides three benchmarks of comparison of its transmission opex with those of its Australian peers.

Figure 64 (opex/MW) shows that in the 09/10 year WP is more efficient (being under the line) but the 16/17 opex above the line showing an increasing cost trend.

Figure 65 (opex/line length) also show the 16/17 year costs well above the 08/09 costs, revealing a worsening performance. As with the measure opex/MW, WP forecast opex for 16/17 is above the line whereas before it was below the line.

Figure 66 shows opex compared to its peers, and WP is shown in the bottom range. This chart is misleading as it is not normalised against any other measure. However, the chart in section 2.1 above, shows the cost to consumers of the WP program in a more performance reflective manner, and that WP is seeking a massive increase in average tariff.

The WAMEU considers that the benchmarking of transmission opex only reinforces the view that the opex claimed by WP is excessive.

7.5.3 Distribution

WP provides four benchmarks of comparison of its controllable distribution opex.

Figure 67 (opex/demand) shows that the opex cost is remaining relatively constant from 08/09 to 16/17. The point WP does not make is that both of the measures are above the line and therefore more expensive than its peers. It also does not point out that more than half of its peers are operating at levels 20%-40% less than WP.

Figure 65 measures performance of opex/line length. As with this measure for transmission, WP performance is much higher for 16/17 than its 08/09 performance. Its current performance is "on the line" (which means that

WP is “average” but not the best performer) but its forecast performance for 16/17 is much worse than its current performance.

Figure 66 plots opex to customer numbers. This again shows that WP performance in 16/17 will be much worse than its current performance. It also shows that its 16/17 performance will be one of the most expensive of all Australian distribution businesses.

The WAMEU considers that the benchmarking of distribution opex only reinforces the view that the opex claimed by WP is excessive.

7.5.4 Conclusions

The WP trend analysis and the benchmarking provided indicate that WP is generally more expensive than its comparators, as in most cases its current performance is above the line of average performance. Most similar businesses are lower cost performers than WP.

The data provided by WP shows that the performance for AA3 will be more expensive than the current performance, reinforcing the view that the claimed opex is considerably higher than it need be.

7.6 Conclusions on opex

WP has made an ambitious ambit bid for a massive increase in opex. It has considerably underspent the allowances granted for AA2 indicating that the allowances for AA2 were too high.

WP provided a listing of the drivers supporting its increases in opex but upon analysis of these, they are not much different to those applying for AA2, indicating that the allowances for these drivers have already been incorporated. WP opex benchmarks from the AA2 period and the external comparisons indicate that the WP actual opex for AA2 is on the high side of average and that the claims for AA3 are excessive.

WAMEU considers that actual opex for 2010/11 is probably on the high side of efficient, based on the benchmarking provided. It also considers that many of the claims made for increases in opex are not justified.

8. Service standards and incentives

WP has proposed a service target incentive scheme (SSAM). The AER has implemented such a scheme for NSPs under its control and the NER clearly considers that such a scheme is to be mandated.

WAMEU supports the concept that service standards improve over time, and agree that an incentive scheme should result in improved standards. This support is predicated on the principle that WP will be incentivised to use some of the benefits it receives from the scheme to earn improved profits from meeting consumer needs.

The downside of such a scheme is where the performance targets are set too low or where averaging allows targets to be achieved without improving services to some customers where the service is substandard. The WAMEU considers that if a business is permitted to have lower service standard targets, then the so-called incentive scheme is an alternative method for rewarding average or substandard performance.

The WAMEU considers that as it is ultimately consumers that underwrite the ability of WP to raise funds for capex and to remain financially viable, it is only reasonable that there be very clear explanations of what funds are required, what they are to achieve, and to have the performance of what the funds are used for to be measured in appropriate ways.

8.1 Past service performance

Access arrangement period 2 (AA2) was subject to WP being incentivised to provide a better service for consumers. As part of this incentive scheme, WP is rewarded for performing better than the target benchmarks and penalised for not meeting them.

In sections 3.2 to 3.6 of the AAI, WP provides a comprehensive assessment of its service performance. A consistent theme throughout this, is that WP has performed well against the targets set. Whilst there were some targets in some years where performance was less than benchmark, these are few in number. The WAMEU considers that WP should be congratulated for this achievement.

The WAMEU considers that as a result of the excellent performance, because the trend must be towards ever increasing performance, the targets for AA3 need to be set at a more challenging level.

8.2 Service standards for AA3

WP proposes to vary the service standard performance measures for AA3 from those used in AA2 and to eliminate some measures from the incentive scheme.

As a matter of principle, the WAMEU considers that if a service performance measure provides critical information about service performance, then there is a prima facie case for it to be included in the incentive scheme. An incentive scheme is to provide a reward for out performance and a penalty for poor performance. Service performance by the networks is to provide ultimately the minimum disruption of supply to ALL consumers, regardless of whether they are transmission customers or connected at the distribution level. This disruption can occur from a number of reasons which are controlled by the networks, including the ability of generation to ensure there is adequate supply to all elements of the electricity networks and that congestion is minimised¹⁸. An incentive scheme must be sufficiently wide ranging to incentivise the ability of the networks to minimise disruption of supply to all consumers.

The major change is that the performance measures used for transmission will be essentially removed and replaced with individual customer service measures. Rather than quantitative performance measures, WP proposes that the new measures will be essentially qualitative (having an account manager for each transmission connected customer, a customer service management plan and participation in a satisfaction survey. WP proposes to retain the quantitative measure of circuit availability. WP advises that this change is satisfactory for transmission connected customers.

What WP fails to recognise is that even though the large majority of customers are not connected to the transmission system, the performance of the transmission network provides an important element of overall delivery of electricity. In the NEM, the transmission network providers could take the same view as WP, that the transmission service performance only affects direct connected customers. This has not eventuated because the TNSPs and the AER all recognise that transmission service performance does impact all electricity users. Because of this, the transmission service performance measures included in the Service Target Performance Incentive Scheme (STPIS) for transmission are quantitative and assess performance over a wide range

¹⁸ It must be recognised that congestion in networks precludes some generators being able to access the network and for some consumers to receive supply.

of measures, including circuit availability, frequency of loss of supply and average outage duration as well as a market impact assessment.

The WAMEU considers that the removal of these measures will provide an avenue for WP to avoid a clear assessment of transmission performance. It is noted that WP Distribution is the largest customer of WP Transmission. WP Distribution has no driving need to require its provider (WP Transmission) to deliver superior service, yet under the WP proposal, WP Distribution becomes the surrogate representative of the vast majority of WP customers.

It is clear from the WP application, that Transmission and Distribution elements of WP activities are segregated. Because of this, it is important to consumers that WP Transmission be incentivised to provide superior service. The only way for this to occur is that WP Transmission service performance is assessed quantitatively, along similar lines to all other transmission service providers. To achieve this the WAMEU considers that the AER's STPIS approach is a well proven and provides an appropriate range of measures. It also provides a good basis for assessing comparative performance with other transmission businesses.

The WAMEU notes that the AER STPIS incorporates a market impact measure of performance in the incentive scheme to address the outcomes of congestion. We consider that a similar measure be incorporated in to the SSAM.

WAMEU would like the service standards expanded along similar lines to that used by the ESCoV where the distribution service standards also specifically incorporate performance on the worst performing feeders. To continue a program where the average is rewarded/penalised does little to help consumers suffering from excessively poor performance on specific feeders. The ERA is encouraged to introduce such a feature into the service targets and its accompanying incentive program.

The WAMEU also notes that the street lighting service measures for AA3 are to be removed from the incentive scheme as well. As these are also critical performance measures, the WAMEU does not see why they should be removed from the incentive scheme.

The WAMEU does not agree with the removal of the quantitative measures used to assess transmission performance, or that they be excluded from the service performance incentive scheme.

8.3 SSAM Targets for AA3

Consumers need to see that service performance improves over time and certainly that it does not deteriorate. A STPIS as used in the NEM or a service standards adjustment mechanism (SSAM) as used in WA provides consumers with the confidence that their issues of disruptions to supply will be addressed by focusing the attention of the network provider onto issues of importance to consumers. What is more, consumers are prepared to pay for enhanced performance.

In addition to ensuring that the performance measures are sufficiently wide ranging to provide an incentive to minimise disruption of supply, the targets for the incentive scheme must be sufficiently challenging to provide an incentive for continuous improvement. Setting targets that are easily achieved only results in providing a transfer of wealth from consumers to the networks with consumers getting little or no improvement in performance.

One issue of major concern to consumers is that network providers attempt to convince regulators that service targets need to be discounted from previous performance to allow for disruption caused by capital works being carried out. This notion is losing credibility on three grounds:

1. The historic performance most commonly used as the basis for setting the new target already reflects outages caused by capital works.
2. Consumers are seeking minimum disruption to their supplies and the networks have the ability to schedule their activities to minimise disruption. If targets are discounted for disruption caused by capital works there is no driver on the networks to identify and implement the networks to carry out their capital works in a way that minimises disruption of supply.
3. Consumers are seeking improved service and setting challenging targets. In a competitive environment providers see that providing a better service than their competitors will attract more custom and therefore enhance profits. A monopoly does not have competitors and so the regulatory framework (in this case a drive for improved service) has to be imposed by way of setting targets that lead to improved performance

On page 92 of the AAI, WP states:

“We have set the service standard benchmarks for AA3 in accordance with:

- meeting that level of service 97.5% of the time based on the historical data for the past five years – this is appropriate as the basis for a minimum service standard
- whether any adjustment should be made based on a greater likelihood of achieving better service due to the forecast expenditure
- comparison with the current (AA2) service standard benchmarks “

On page 93 of the AAI, WP adds:

“We have set the service standard benchmarks for SAIDI, SAIFI and call centre performance based on the 97.5 percentile of the historical data for the past five years.”

With these concepts in mind, along with the decision to exclude a number of transmission performance measure and to delete street lighting from the incentive scheme, WP advises the following historic performance and the targets for the final year of AA2 and the five years of AA3.

Performance measure		Units	2009/10 actual performance	2010/11 actual performance	Service standard benchmark (minimum standard) for	SSAM target in AA2 (2011/12)	SSAM target for AA3
<i>Distribution reference service measures</i>							
SAIDI	CBD	Minutes	1	30	56	38	28
	Urban	Minutes	156	120	200	153	163
	Rural short	Minutes	212	192	360	244	254
	Rural long	Minutes	661	529	720	556	616
SAIFI	CBD	Number	0.02	0.24	0.40	0.24	0.22
	Urban	Number	1.55	1.34	2.30	1.83	1.90
	Rural short	Number	2.33	2.19	4.20	2.98	2.91
	Rural long	Number	4.17	3.76	5.70	4.80	4.77
Call centre performance		Per cent			75.0	n/a	88.0
<i>Distribution and transmission and reference service measure</i>							
Circuit availability		Per cent	98.4	97.9	97.3	98.0	97.7
<i>Transmission reference service measure</i>							
Individual customer service measure		Per cent			100	n/a	n/a
<i>Street lighting reference service measures</i>							
Street lighting repair time	Metropolitan areas	Days	2.0	1.4	5	5	n/a
	Regional areas	Days	1.7	1.7	9	9	n/a

Source: AAI tables 2 and 13

The WAMEU is concerned that the service performance targets are set too low based on historic performance and considers that as a minimum the targets should be set at the historic average. The targets proposed will provide WP with a significant bonus even if they achieve the historic performance. To accept these low targets would be poor practice and not in the interests of consumers.

The WAMEU is of the view that [service performance targets must not be allowed to be reduced while there is one customer that is dissatisfied or has not received the minimum service standard.](#)

We note that the SSAM is relatively low powered, especially in relation to the proposed transmission performance measure. By combining easily achieved performance targets with a low powered incentive, the WAMEU considers that the best interests of consumers are not being given adequate attention.

8.4 Qualifications and exemptions

The WP proposal includes an approach to developing a cost impact relationship between SAIDI and SAIFI. WP uses the VENCORP concept and calculations of Value of Customer Reliability (VCR) to generate this relationship and uses a value of VCR of \$62,256/MWh as the appropriate value for the SWIN. The WAMEU is very concerned at the magnitude of this value and its associate Major Energy Users (MEU) has raised similar concerns directly with AEMO. The MEU points to the way the AEMO assessed value of VCR has increased in real terms over the past decade whereas similar values used overseas are much lower and have varied little with time. This raises the concern that the AEMO developed VCR maybe considerably overstated. The ERA is requested to assess VCR in its own right and examine stakeholder views on this issue¹⁹

WAMEU notes the extensive proposal to adjust the SSAM between AA2, AA3 and AA4 and between transmission and distribution. The WAMEU is concerned that these might result in WP gaining an unearned benefit, especially in relation to the targets being easily achieved. The ERA is requested to examine the WP proposal in detail to ensure this is not the case.

The WAMEU is concerned at the extent of the exclusions WP proposes in calculating the performance measures and the development of the reward under SSAM. The WAMEU comments that from a consumer viewpoint, the reliability of delivery of electricity is its main priority. The more exclusions that are permitted in the assessment of the performance, the easier it is to WP to achieve a reward. The WAMEU considers that exclusions must be minimised.

In this regard, it notes that the current AER review of its STPIS is considering the introduction of “near miss” measure which effectively measures the increased risks for loss of supply through unplanned outages that do not cause an actual loss of supply²⁰. The ERA is urged to review this concept as WAMEU considers that such new measure has significant potential to focus attention on aspects that have historically not been assessed.

WP has claimed recovery of \$6.9m as an unforeseen event (see table 77 and AAI 12.2.4) on the basis that this is a force majeure event. WP avers

¹⁹ See <http://www.aemo.com.au/planning/vcr.html>

²⁰ See <http://www.aer.gov.au/content/index.phtml/itemId/730820> for more information

that the outcome of the storm on 22 March 2010 is such an event against which WP was not able to recover the costs from its insurers.

The WAMEU does not consider that such an event should be effectively classified as a force majeure event as storms are to be expected. To a degree, WP has the power to minimise the impact of storms through its management of its assets, just as any other business has. The impact of a storm is expected to result in some damage and WP should have to accept this as a normal activity.

It is not considered reasonable that WP should be able to pass through its costs to its customers as a result the storm when other businesses are not able to do so.

This issue is made even more poignant when WP expended much less in capex and opex than consumers were required to pay for through AA2. It might even be that if WP had spent as was allowed for, the impact of the storm might have been less. For WP to not only gain a large benefit in underspending in opex and capex and to then be paid more for the outcome of a storm where all other businesses had to carry their own costs, is considered to be unreasonable and inappropriate

Conclusions

The WAMEU supports the approach to setting service performance targets and incentivising the achievement of them but it disagrees with the exclusion of transmission performance measures. It considers the targets proposed by WP are too easily achieved and do not impose much challenge.

The WAMEU would also like to see the performance standards expanded to specifically include the worst performing feeders so that there is an incentive on WP to address these – consumers on poorly performing feeders pay the same as those on good performing feeders, so there is an expectation that they too should benefit from the regulatory bargain of receiving good service for the money paid.

Service performance measures should also include the increased risks caused by “near misses” and on the impact on the market of network performance in managing congestion. The WAMEU is also concerned at the proposal to increase the exclusions from the performance measures.

The inclusion of cost recovery of \$6.9m for a supposed force majeure event on 22 March 2010 should be rejected.

9. Tariff structure

Under a revenue cap there has been a tendency for regulators to not be involved in tariff setting as the allowed revenue is fixed. Such an approach can lead to the NSP in developing tariffs which are not cost reflective, and as a result the pricing signals that tariffs are intended to provide can be muted or even counterproductive.

In particular, the WAMEU notes that whilst much of the capex is provided to address increases in peak demand, all too often the tariffs are set in terms of consumption. It is widely recognised that the increasing penetration of air conditioning has been the major contributor to the increasing demands on networks. Further, as the air conditioning load is heavily weather dependent, it has also led to a reduction in network load factors, due to the high demands occurring for relatively short periods.

The continuing approach for tariffs to reflect consumption means that there is a trend for high load factor consumers to subsidise consumers with low load factors. Whilst this loss of cost reflectivity provides a benefit to low load factor consumers, it also avoids providing price signals to those who are causing the bulk of the need for increased peak capacity in the networks.

The ERA should require WP to develop tariffs that:

1. Are cost reflective as this provides equity to all
2. Provide a strong price signal to consumers that have high demands for relatively short periods of time

Unless there are tariff changes along these lines, WP will continue to seek the large increases in revenue to manage the increase in peak demand that could be mitigated if there was a more appropriate tariff structure.

Attachment 1 – Debt Risk Premium

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 businesses²¹. 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.

²¹ 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 decision²². 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 value curves are developed and so explain why there are significant differences between them²³. The ACT comments at paragraph 23:

²² Application by ActewAGL Distribution [2010] ACompT 4 (17 September 2010)

²³ In Addendum 2 Issue 4 regarding the Oakvale input, Oakvale provides some insight into the disparity

“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 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 provider²⁴. An investor will address aspects

²⁴ 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 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.”

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 liquidity²⁵ 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 then 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:

“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.”

²⁵ 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.”

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 more 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.²⁶

²⁶ 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.

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 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 reports²⁷:

²⁷ “Europe shells out €550m for Amcor bond issue”

“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

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 outcome 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 EnergyAustralia'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, whilst 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 Ergon²⁸ 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

²⁸ 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)²⁹ 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.

²⁹ 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 SORI³⁰ 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

³⁰ 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 Rules³¹ (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].”

³¹ See appendix 1.1 which includes the relevant excerpts from the NER

2.1 DRP and the NEO

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 consumers³². 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.

³² See appendix 1.2 – second reading speech for NEL

To achieve this, the NER Clause 6.5.2(b) considers that debt structure must equate that used 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”

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 dictionary³³):

“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 tradeable, although the AER seems to have restricted itself to assessing the DRP based only on tradeable 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 ETSA

³³ Similar definitions are in Collins English Dictionary and Oxford Concise Dictionary

was incurring. The ECCSA provided evidence of a Credit Suisse report³⁴ where CS observed, based on the AER assessment of DRP of [sic] 427 bp³⁵:

“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 providers³⁶) 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 2005³⁷.

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

³⁴ Credit Suisse, Company Update 1 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

³⁵ In fact the CS report is in error as the AER had set a value of 429 bp

³⁶ 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+

³⁷ 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 data³⁸, 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.

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

³⁸ 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

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 tradeable 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 forecasts³⁹. Errors such as these add significantly to the risk participants have to manage.

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.

³⁹ 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.

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 tradeable 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:

k_d is the return on debt and is calculated as:

$r_f + \text{DRP}$

where:

r_f 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 2005⁴⁰

⁴⁰ Hansard SA HOUSE OF ASSEMBLY Wednesday 9 February 2005 page 1452

“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)

Appendix 2 –

A2. Problems with forecast variability

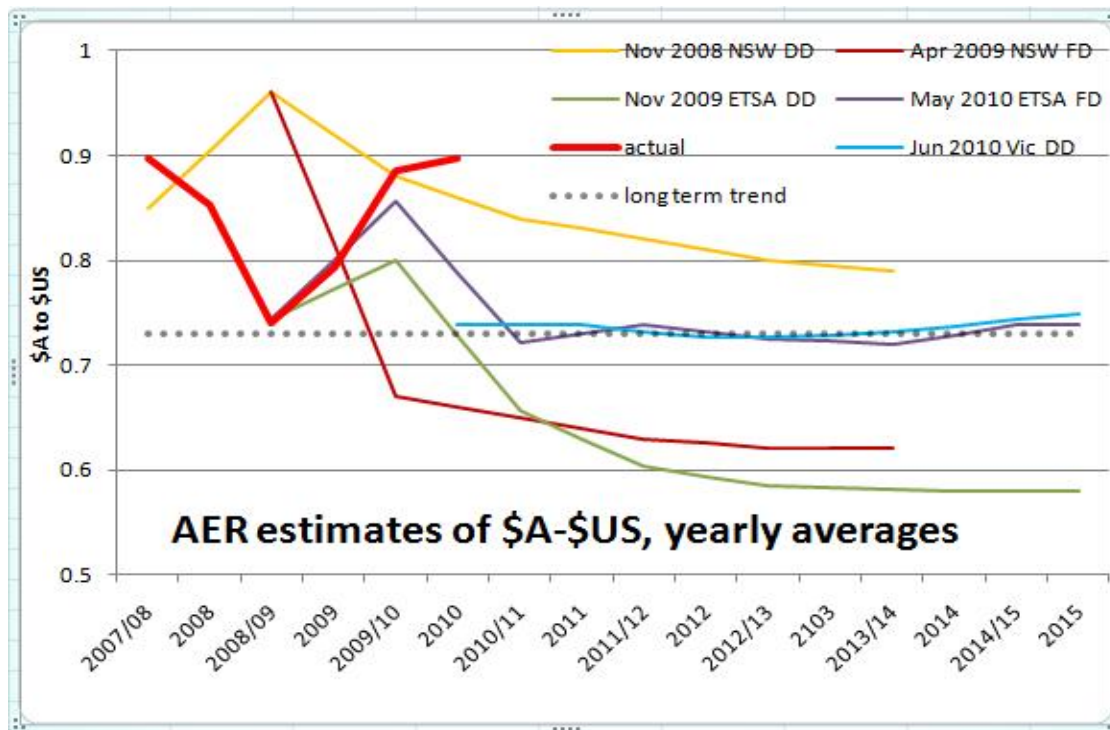
Example: US to Australian dollar exchange rates

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.