WA Economic Regulation Authority

2017/18-2021/22 PRICE REVIEW

ELECTRICITY DISTRIBUTION and TRANSMISSION SERVICES

in the

Western Power network

Response to the ERA Draft Decision

by

Western Australia Major Energy Users

May 2018

Assistance in preparing this submission by the Western Australia Major Energy Users (WAMEU) was provided by Headberry Partners Pty Ltd

The content and conclusions reached are those of WAMEU and its consultant.

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Executive Summary

This submission has been prepared by Western Australia Major Energy Users (WAMEU) which represents several large energy users in Western Australia whose businesses are significantly affected by electricity costs, reliability, quality and security. WAMEU welcomes the opportunity to provide comments on the draft decision by the Economic Regulation Authority (ERA) on the application by Western Power (WP) for access arrangement AA4 for the 2017/18-2021/22 price review of WP services.

While an overall assessment of the application by WP indicates that WP has reduced its capex and opex levels from what was allowed for AA3 and the actuals for AA3, the average real prices are still rising as a result of falling demand and consumption. What is concerning is that it is already recognised that WP has amongst the highest electricity transport prices in Australia and Australian prices are seen as being amongst the highest in the developed world. Unfortunately, the ERA draft decision does not lead to reduced prices as is needed, but increases in real prices. This puts further pressure on electricity users and increases the price for what is already seen as unaffordable for this essential service.

In previous reviews, WAMEU strongly urged the ERA to undertake detailed comparative analysis of all of Western Power's claims and WAMEU is pleased that the ERA has continued this process for AA4. But despite this, WAMEU is concerned that the ERA has not stepped back to see the reality of the outcomes for consumers, in that it accepts that prices (in real terms) can continue to rise whereas consumers are finding it increasingly difficult to accommodate the current price levels, let alone further increased prices for the service.

WAMEU noted that in 2012, the AER decided that the NEM rules were too favourable to the networks and instituted a number of rule changes to reverse the ever increasing prices for network services. WAMEU considers that the ERA should implement a similar review if it considers that the current rules do not give it the necessary powers to constrain network service prices.

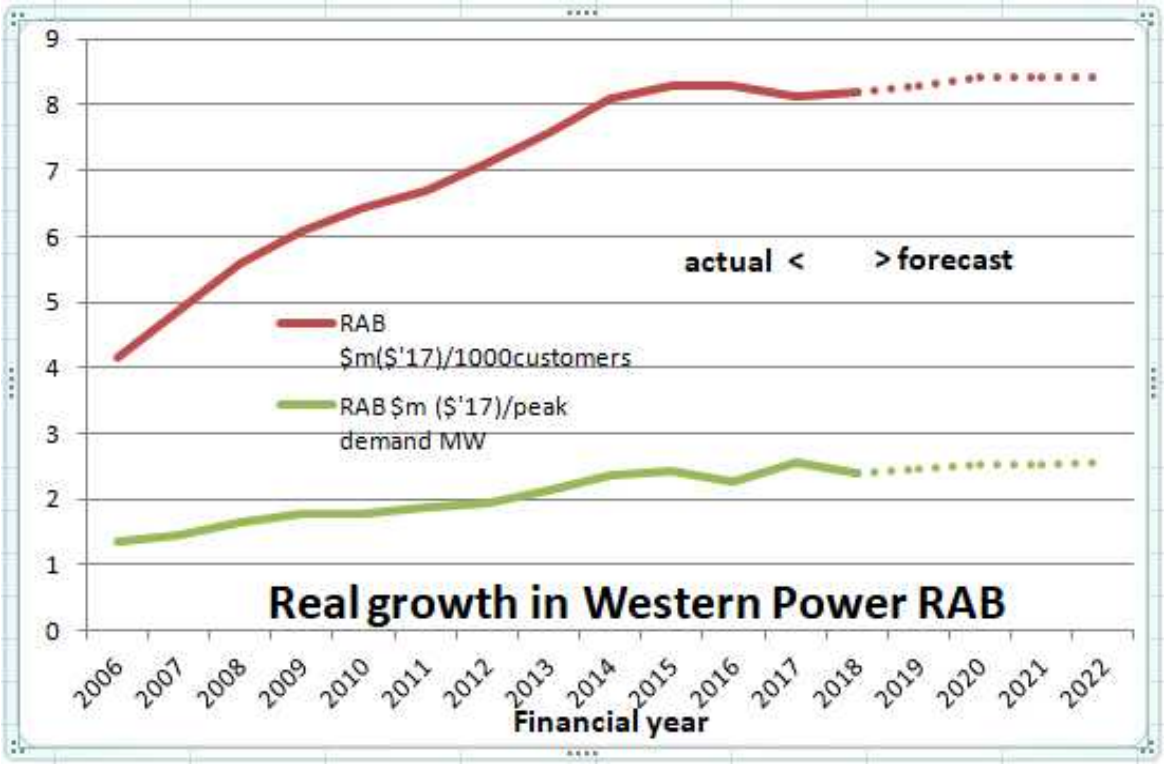
WAMEU is very concerned that not only does the WP regulatory asset base (RAB) continue to rise, but at the same time utilisation of the network is falling with service standards improving, even though consumers are not seeking to pay more for such improvement. WAMEU considers there has to be a way of reducing prices and WAMEU proposes this could be achieved by reducing the WACC, reducing the RAB and limiting new capex to the depreciation allowance.

The following table compares WAMEU assessment of what constitutes reasonable WACC development with the ERA draft decision. WAMEU views that are outlined in the table are derived from work carried out by a consumer reference group constituted by the AER as it develops its new rate of return.

Parameter	**WAMEU recommended set point**	**ERA DD set point**
Risk free rate	Based on the nominal 5 year CGS	Based on the nominal 5 year CGS
Inflation	1.84%	1.84%
Debt premium	140 bp	261.3 bp
Gearing	70%	56%
Equity premium	400 bp	620 bp
Equity beta	0.40	0.70
Gamma	1.00	0.40

WAMEU considers that implementation of these parameters will deliver lower prices recognising that WP faces much lower risk than firms in the competitive sector from which the parameters are drawn.

The increase in the RAB in real terms, relative to peak demand and customer numbers (the two measures that basically set the RAB) is shown in the following chart. The ERA needs to address the ever increasing RAB which is resulting in increasing under-utilisation of the assets and imposing costs on consumers for assets they do not need or use.



Source: WP annual reports, APR, AAI for AA1-AA4, GHD report, WAMEU analysis

While WAMEU considers that the ERA has little ability to reduce the RAB under the rules, WAMEU considers that the ERA should make reference to the very high RAB value as it is causing considerable harm to both current and future consumers, and suggesting that the government could look to direct WP to write down its asset base to an optimised level.

WAMEU considers that the allowance for capex is too high and will impose increased costs on consumers that increase the unaffordability of the WP services provided.

WAMEU considers that to reduce this unaffordability problem, the capex allowance should be capped at the value of the value of the depreciation so that the RAB does not increase further.

Overall, WAMEU considers that GHD and ERA have approached the allowance for opex in a sound and thorough manner and the conclusions reached are supportable. However, WAMEU considers that benchmarking still indicates that WP is not at the efficient frontier for its opex and that further reductions are possible. In particular, WAMEU considers that the significant amounts of historic capex should have delivered more opex reductions than has been identified by GHD and ERA and that increased productivity of the WP operations are not only

possible but are required to match the productivity gains made by competitive industry.

WAMEU notes that service standards are continuing to improve and as a result, WP is getting significant bonuses. The cost of these bonuses leads to price rises and as there is widespread concern about unaffordability of WP services, it is questionable whether consumers are willing to pay for further improvements in service standards.

WAMEU considers that the ERA should implement a requirement that the 97.5th percentile for all reliability benchmarks except circuit availability which is to be at the 2.5th percentile (call centre performance excluded) and that the targets for service standards should be set on a historic rolling 5 year basis

WAMEU is very concerned that WP is proposing to increase penalties (Excess Network Usage Charge - ENUC) on users of assets which are highly loaded. This is contrary to the requirement that pricing should be cost reflective and not distortionary. WAMEU sees that the ERA is not inclined to change the WP approach to implementing penalties for exceeding contract demands and seems to be supportive of increasing these penalties – WAMEU considers the ERA is in error on this issue and should seek to limit distortionary pricing, especially where there are few options available to end users to manage the increases in costs. WAMEU considers there are other more appropriate tools available to WP to ensure that the assets do not get overloaded and that each end user pays for the capacity they actually use.

WAMEU is very concerned that the application of increased penalties will result in increased revenue for WP which will then be passed back to other consumers through application of the revenue cap. This will result in a transfer of wealth to consumers on less highly utilised assets without achieving any definite benefit to consumers as is required by the National Electricity Objective.

1. Introduction

1.1 About WAMEU

WA Major Energy Users **(WAMEU)** is an energy market interest group for large energy users in WA and is funded by major energy users that operate energy intensive businesses in WA.

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WAMEU was established in 2007 to fund a consultant report into Western Power's (WP) Access Arrangement AA2. The submission from WAMEU was one of few received from users by the Economic Regulation Authority (ERA) and contributed significantly to the debate about that application. The exercise was repeated again in 2011, with a similar group of participants, for the following Western Power network tariff re-set for AA3.

During previous reforms and WP resets large electricity users (those who pay the bills for energy in WA) often have little to no involvement in the discussions that shape the energy industry and WAMEU activities attempt to rectify this.

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 WP 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, 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 WAMEU (and their suppliers) have identified that they have an interest in the **efficient cost** of the energy network services as these comprise 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 network 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 Affordability of electricity supply

There is little doubt that the cost of electricity network services has risen in recent years. While the east coast has seen massive increases, so too have WA consumers.

There are a number of reports that highlight that the electricity rues have had a significant impact on the burgeoning energy transport prices and WAMEU considers that the rules are a significant driver of the increased prices sought by WP. WAMEU notes that in the NEM, the AER is very active in seeking rule changes to rebalance the rules (most recently in the rate of return on assets) to deliver better outcomes for consumers and WAMEU considers the ERA should be just as active in this process.

As the AEMC shows in its 2017 Residential Electricity Price Trends, WA residential consumers faced a 10% increase in electricity supply between FY16 and FY17 with more increases forecast.

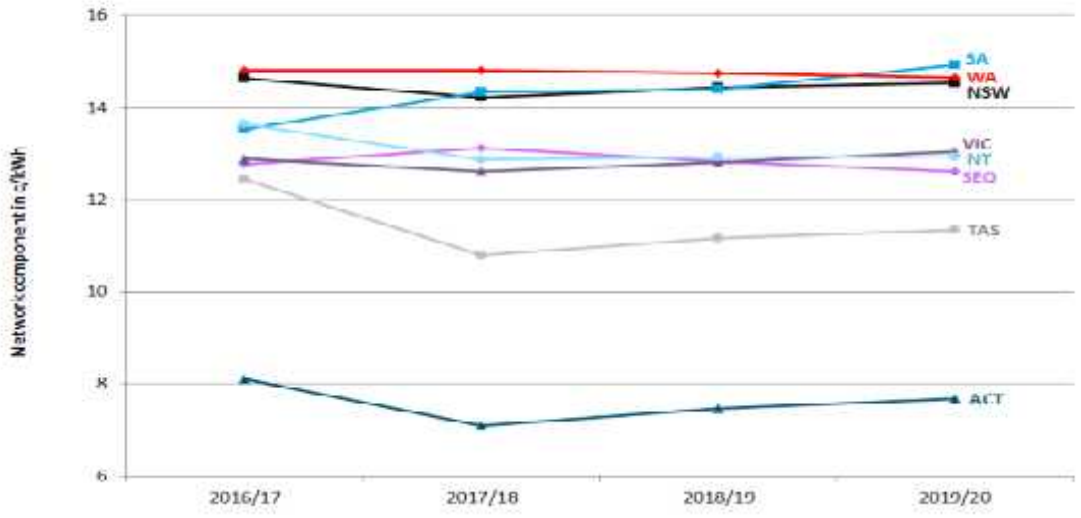
Table 1 Summary of key data by jurisdiction

	National weighted average	SE QLD	NSW	ACT	VIC	SA	TAS	WA	NT
Changes in retail electricity prices over the reporting period									
Actual change from 2016/17 to 2017/18	↑ 10.5%	↑ 3.4%	↑ 10.2%	↑ 20.3%	↑ 15.9%	↑ 17.0%	↑ 2.0%	↑ 10.5%	↑ 0.5%
Estimated change from 2017/18 to 2018/19	↓ 5.2%	↓ 7.0%	↓ 5.8%	↑ 8.0%	↓ 6.5%	↓ 6.9%	↓ 5.2%	↑ 7.5%	↑ 2.5%
Estimated change from 2018/19 to 2019/20	↓ 7.3%	↓ 7.2%	↓ 7.3%	↓ 4.1%	↓ 8.7%	↓ 7.8%	↓ 7.0%	↑ 5.8%	↑ 2.5%

Note: Victoria increase is based on an estimated price for 2017/18. In Victoria retail prices generally change in January of each year.

While WAMEU recognises that the retail price analysis includes the cost of generation and retail margins, the report also shows that WA residential consumers pay amongst the highest network prices in the country, with network charges being just under 50% of the total bill for electricity supply. As the ERA draft decision allows increases in the cost of electricity transport, these high prices are expected to remain to further increase.

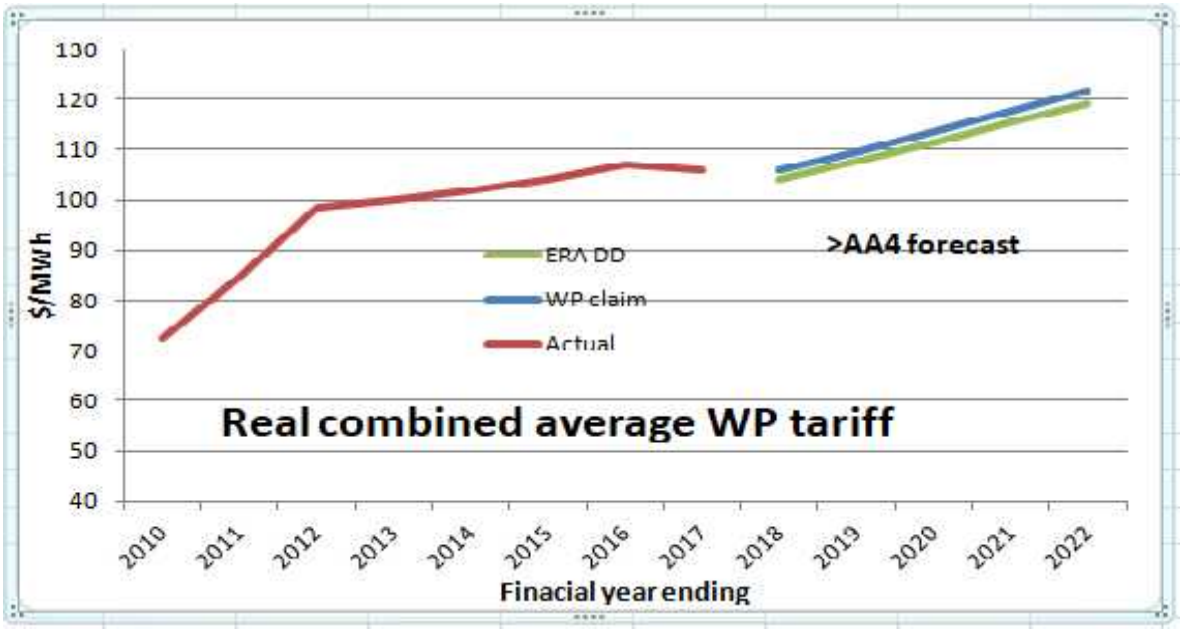
Figure 4.1 **Network component of electricity prices for a representative consumer by jurisdiction**



This issue of unaffordability of electricity supplies has been widely reported and every step must be taken to reverse the current trends.

2. An overview of the draft decision

Against the background of very substantial underspending by WP of its allowed capex and opex in the AA3 period, WP has reduced its capex and opex needs for AA4 compared to actual capex and opex in AA3. However, these reductions need to be seen in context as capex and opex for AA3 was significantly higher than in AA1 and AA2. While the draft decision has applied some paring of the claimed amounts of opex and capex, the resultant movement in the opening tariffs shows just a modest reduction from that sought by WP, but this slight reduction is offset by significant real increases over the balance of the AA4 period. This is shown in the following chart where average prices increase by nearly 3.5% pa significantly in real terms



Source: ERA FD for AA2 and AA3, WP AAI, ERA DD, WAMEU analysis

While the chart shows an overall increase in the average real tariff, WAMEU notes that the prices in the draft decision for transmission increases significantly faster in smoothed real terms (an average of 6.1% pa) than those in smoothed real terms for distribution (an average of 0.5% pa). It is noted that WP has proposed (ERA DD page 24)

> "… deferring some revenue for transmission (and taking up more revenue in distribution) to limit its forecast increase in transmission prices to 10 per cent (in nominal terms)".

While WAMEU supports such an approach, the ERA needs to explain why this differential is occurring and what steps are being taken to bring both price increases into some form of consistency. WAMEU is concerned that the approach taken by WP in relation to investment has resulted in significant over-investment in transmission assets and this has led to an unacceptable position where all consumers are paying too much for the services provided by WP. This issue is further addressed in section 4.

WAMEU also notes that the imposition of higher prices on transmission will only directly impact direct connect customers[1] even though WP Distribution is the biggest user of transmission assets. Because of this, while WP transmission will notionally receive revenue from WP Distribution from the higher transmission prices, this will result in an internal transfer of funds, whereas it will be only end users direct connected to the transmission network that will incur the full impact of the higher transmission prices.

What the chart also highlights is that in real terms, the average tariff[2] for WP services will nearly double in the 12 years from 2010 to 2022. Such a massive increase is not sustainable and to a large extent is a result of the inability to restrain the massive capital works expenditure that has occurred in the previous two regulatory periods and forecast to continue. As pointed out in section 4, the regulatory asset base has more than doubled in real relative terms for only relatively minor improvements in reliability of supply.

WAMEU is very concerned that the ERA draft decision for AA4 does not attempt to maintain prices in real terms as was its stated aim for AA3, and allows prices to increase in real terms over AA4.

Analysis by WAMEU of the causes of the ever increasing prices in real terms is due to:

- Allowing the RAB to get out of control (see sections 4 and 6)
- Providing a WACC that does not reflect the actual risks faced by WP in providing the services (see section 5)
- Not driving WP to higher productivity levels in respect to opex (see section 7)

[1] Thereby reducing their long term viability
[2] The average tariff is the cost for both distribution and transmission services divided by the consumption of electricity by consumers

WAMEU has been raising these concerns with the ERA at all previous access arrangement reviews (AA2 in 2008 and AA3 in 2011) yet the prices in real terms continue to rise. While WAMEU recognises that this continued rise is typical of what has been seen in the NEM as well, this does not provide a rationale for the price increases other than there is a fundamental failure of the regulatory approach and the rules to setting allowed revenues for the provision of electricity transport, leading to Australian electricity prices reaching amongst the highest in the developed world.

WAMEU is aware that the AER is taking steps to address the ever burgeoning electricity transport prices. This includes assessing the profitability of the networks and comparing these to profits generated in the private sector where firms face competition and achieve lower profits.

WAMEU considers that the ERA needs to assess whether the profits generated by WP are excessive (see WAMEU comments in section 5 which show that WP generated a return on equity of over 23% for the last five years), indicating there is a massive wealth transfer from consumers to Western Power.

This transfer of wealth has to cease as it is causing considerable harm to consumers.

3. Forecasts

WAMEU notes that while customer numbers are continuing to increase on a fairly constant basis, the SWIN is experiencing the same trends in peak demand and consumption seen in the NEM, where peak demand is flat or declining and consumption is falling. This discontinuity has some profound impacts and WAMEU is not convinced that either WP or the ERA has really appreciated the impacts of these changes from historic trends.

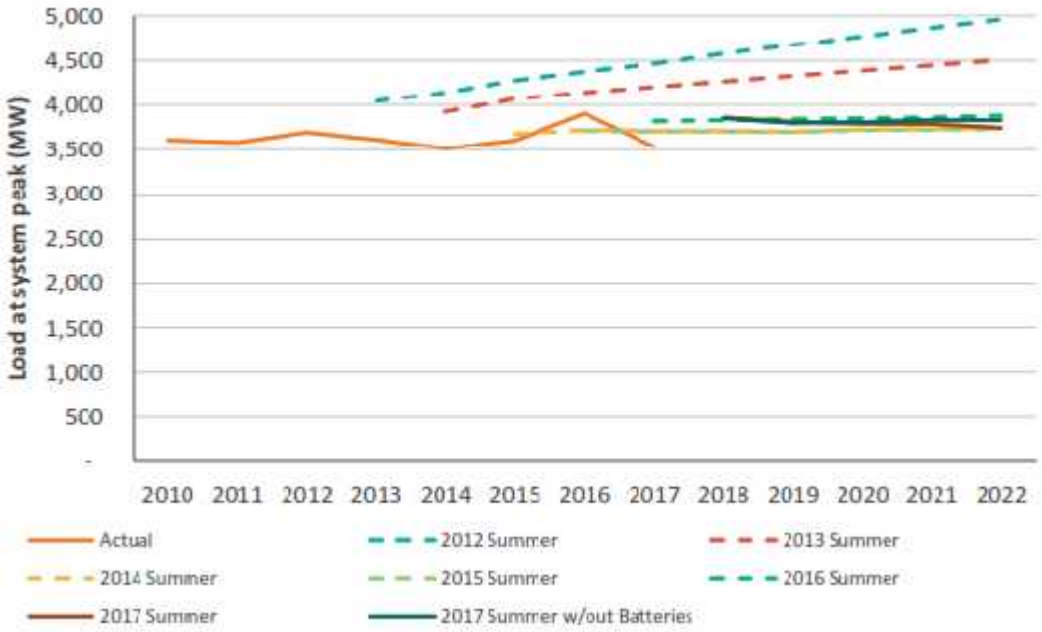
Declining consumption coupled to a revenue cap approach to regulation has a number of detrimental impacts on consumers as:

- Network charges comprise ~50% of the price for electricity, and with no reduction in revenue allowances for less consumption, this provides a disincentive for consumers to actively reduce consumption. What it also does is to provide justification to make inefficient investments to reduce the cost of electricity. WAMEU considers that the ERA needs to address this issue in more depth when assessing tariff structures.
- The risks faced by WP are significantly reduced as the network cost of this declining consumption falls to consumers. This transfer of risk needs to be accommodated in the cost of capital assessment so that consumers, who take the risk, see some offset in prices for taking this risk. This issue is addressed in more detail in section 5 below.
- With consumption falling at the same time customer numbers increase implies that not only are existing customers reducing demand (thereby decreasing utilisation on existing networks) but the consumption added by new customers is lower than in the past. This means that when adding new customers, WP should not assume that the historic ways of providing electricity supplies to these new customers is appropriate and the WP should be assessing if there are more efficient and less costly ways of ensuring these customers receive their electricity. Prudent investment for connecting new customers requires assessment whether the cost of augmenting the existing network is the most efficient way to provide these new customers with the electricity services they need or if an alternative approach is more efficient. WAMEU considers that WP has not embraced this new paradigm.

There are also significant impacts arising from declining peak demand and WAMEU notes that the peak demand is also forecast by WP to fall over AA4. In particular WAMEU notes that the expected maximum demand has peaked (see

following chart from WP AAI) and is expected to fall after reaching its maximum in 2016

Figure 8.13: Peak demand growth projections 2012 to 2017



Source: WP AAI

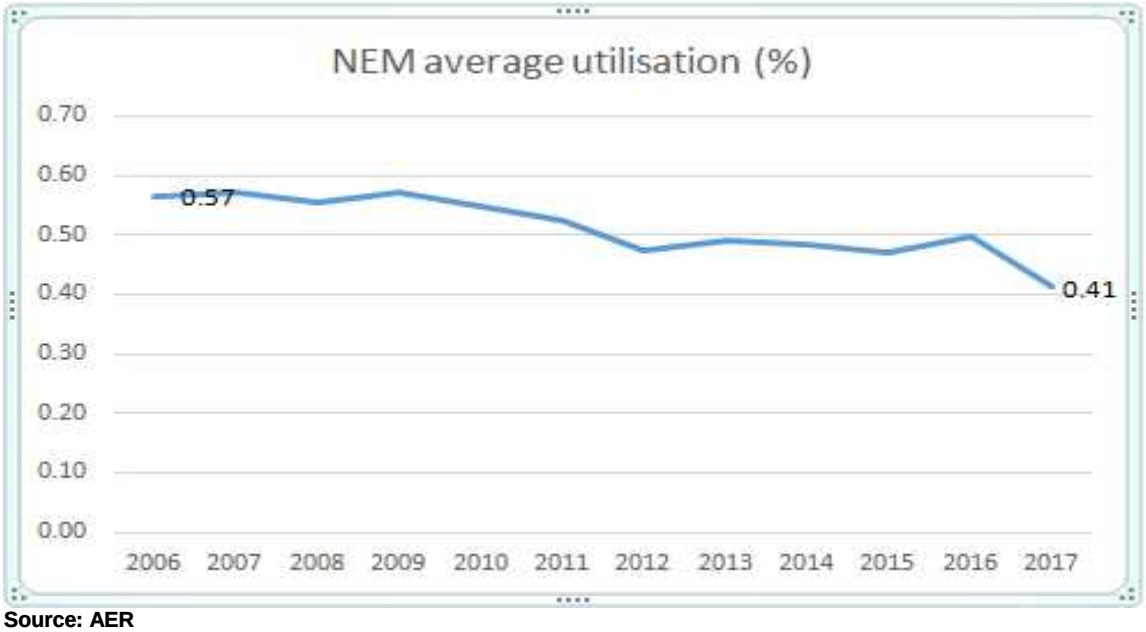
Noting that the WP forecast peak demand for AA4 shown in the chart reflects the 10%PoE level[3], WAMEU observes that as peak demand is the main driver for augmentations of the network, at a holistic level the network is already sized to manage the peak demands expected during AA4. The outturn of this observation is that there is little need for any augmentation capex to be included in the capex allowance. WAMEU addresses the impact of this observation in more detail in section 6 below

There is a concerning element that the above chart implies. During AA2 there was forecast significant increases in peak demand and WP would have built the network in anticipation of these forecast expectations. This means that the network would have been sized for (say in 2012) a peak demand of over the 4200+ MW expected in 2014. With falling peak demand expectations, the network should not have been sized for any further increase because the peak demand expectations reduced with time.

[3] The 10% Probability of Exceedance is a view that the value will only be exceeded once in a ten year period, considered to be an unlikely event

The implication of this is that the WP network is already sized for 4200+ MW peak demand and as this has never occurred and expectations are lower than actual peak levels, there is considerable spare capacity in the network and declining utilisation. This means that consumers are paying for assets that are oversized for the requirements they have of the network.

WAMEU points out the same issue has occurred in the NEM and that utilisation rates seen in the NEM are falling. While WAMEU does not have utilisation data for WP network, it does have average utilisation data for the NEM[4].This data is shown in the following chart.



Source: AER

While WAMEU does not state that WP assets have a utilisation rate as low as that seen in the NEM, it does consider that the WP network would show similar trends.

Effectively, the WP network has considerable spare capacity and consumers are paying for this unused capacity, even though it is not used.

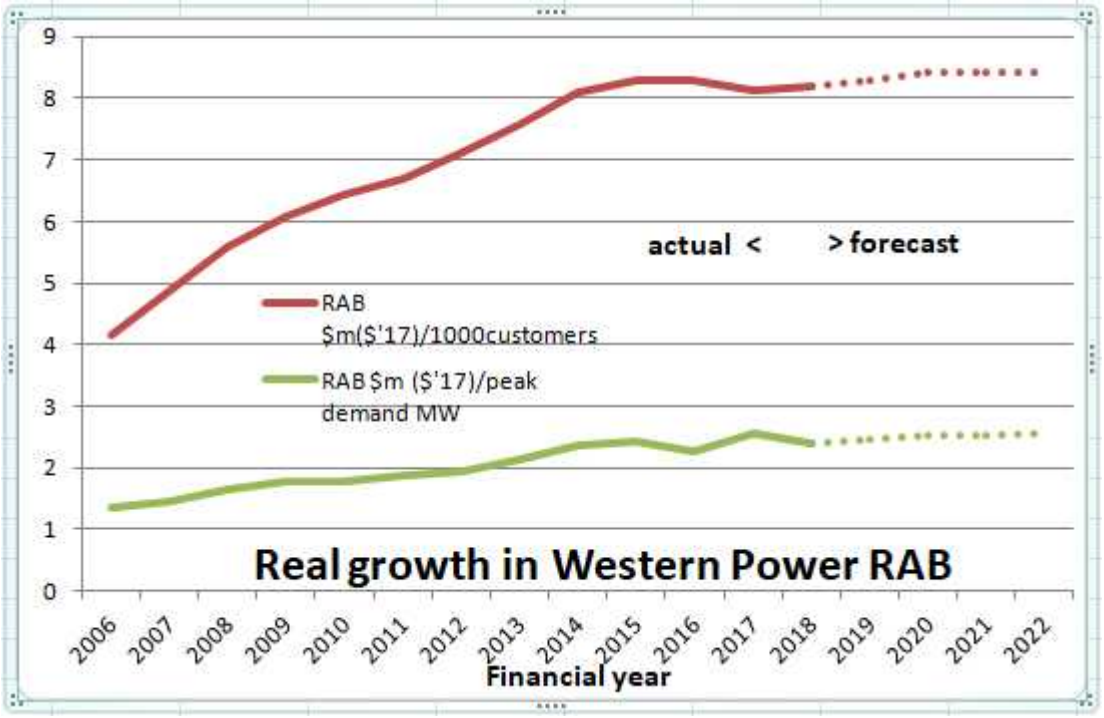
[4] See AER report: DORIS – D18-46164 Networks – Reports – ENA CRG consultancy – RA Capex n

4. Setting the RAB and depreciation

WAMEU s very concerned about the growth in the Western Power regulatory asset base (RAB) which is then multiplied by the weighted average cost of capital (WACC) to generate about half of the total costs of the services provided by WP.

The following chart shows the growth of the RAB in real terms ($2017) against growth in the peak demand (the main driver of network growth) and customer numbers (who pay for the service) both for actual growth to 2017 and forecast growth for AA4. As has been seen in most other networks, the WP RAB has almost doubled in the past decade[5], although, again typical of other networks, this growth in the RAB has levelled in more recent times

However there is a slight upward increase in the RAB in real terms for AA4



Source: WP annual reports, APR, AAI for AA1-AA4, GHD report, WAMEU analysis

There are two concerning aspects that can be drawn from this chart:

[5] One of the reasons this has occurred in the NEM is that the RAB is indexed to depreciated replacement cost. This does not apply to the WP RAB which is not indexed to replacement cost which makes the WP RAB growth even harder to understand.

- In 2006, the reliability of the supply to WP customers was similar to that provided now, raising the question as to what has been achieved for customers by this massive growth in RAB, and what value do consumers get for the massive investment made, supposedly made in their "long term interests" and has this investment delivered rewards that consumers wanted?

- The second concerning feature is the impact that this massive growth will be passed onto future consumers who also will get little value for what is an under-utilised and over priced asset but who will be required to continue to pay for the spare capacity and/or gold plated assets for decades to come. This is an intergenerational issue that has not been addressed by the ERA or by the rule makers.

The overall impact of this massive growth in the RAB has been moderated to some extent by the very low interest rates that currently apply, but WAMEU points out that interest rates are on the rise and when they reach more "normal" levels, this high RAB will cause costs for the networks to rise to very high levels.

This issue is exemplified by the changes in allowed revenue. For example, the following two charts for the allowed transmission revenue drawn from the ERA draft decision 2018 and the ERA final decision 2012 – the table for the final decision for AA3 has been updated to dollars June 2017 for ease of comparison – show that even the reductions in capex set by the ERA draft decision do not stop the RAB increasing or the reductions in opex stopping prices increasing.

Table 9 ERA draft decision target revenue for the transmission network ($ million real at June 2017)

	2017/18	2018/19	2019/20	2020/21	2021/22	AA4 Total	Western Power proposal
Operating costs	80.6	79.2	78.4	79.7	79.4	397.6	430.3
Depreciation	111.4	116.3	123.9	133.0	137.4	622.0	640.3
Accelerated depreciation (redundant assets)							
Return on regulated asset base	127.7	127.9	129.7	131.7	132.0	649.0	720.6
Return on working capital	1.1	1.6	1.8	2.0	2.4	8.9	8.0
Taxation	12.8	14.5	15.4	14.7	16.3	73.7	8.3
Forward looking efficient cost	**333.7**	**339.6**	**349.2**	**361.2**	**367.5**	**1,751.1**	**1,807.5**
Investment adjustment mechanism	(33.8)					(33.8)	(33.6)
Service standard adjustment mechanism	13.4					13.4	13.40
Unforeseen events	-					-	5.5
D-factor	-					-	-
Gain sharing mechanism	8.6	9.3	9.3	7.1	16.6	50.9	103.7
Deferred revenue recovery	4.5	4.5	4.5	4.5	4.5	22.7	23.8
K-factor	1.2					1.2	1.2
Total Revenue Building Blocks (unsmoothed)	**327.7**	**353.4**	**363.0**	**372.8**	**388.7**	**1,805.6**	**1,921.5**
% change in unsmoothed building blocks	**12.9%**	**7.8%**	**2.7%**	**2.7%**	**4.3%**		

Table 6 Final Decision target revenue for the transmission network for AA3 (updated to $ million real at 30 June 2017)

Transmission AA3 ($Jun17)	Final Decision						Draft Decision
	2012/13	2013/14	2014/15	2015/16	2016/17	Total	
Operating costs	114.3	113.3	113.7	116.0	118.9	576.2	563.8
Depreciation	93.9	103.4	114.1	121.3	129.6	562.3	556.0
Accelerated depreciation (redundant assets)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred reference service revenue	11.7	11.7	11.7	11.7	11.7	58.4	60.1
Return on assets	101.5	109.9	121.5	126.9	133.0	592.8	602.4
Return on working capital	0.6	1.4	1.0	1.0	0.9	4.9	5.8
Total Gross Costs	**322.1**	**339.7**	**362.0**	**377.0**	**393.8**	**1794.6**	**1817.9**
Taxation	16.2	22.3	6.7	0.0	0.0	75.3	71.3
Imputation Credit	-11.6	-5.6	-1.7	0.0	0.0	-18.9	-17.8
Investment adjustment mechanism	-52.3	0.0	0.0	0.0	0.0	-52.3	-53.1
Service standard adjustment mechanism	6.7	0.0	0.0	0.0	0.0	6.7	-0.9
Net costs after adjustments (unsmoothed)	**311.2**	**356.5**	**367.1**	**377.0**	**393.8**	**1805.5**	**1817.5**
Maximum forecast reference service revenue	**449.5**	**382.5**	**347.3**	**317.2**	**288.5**	**1785.1**	**1797.6**
% change in TR							

While it is obvious from the two charts is that, even though the draft decision opex and capex have fallen significantly and the WACC is much the same, there is an overall significant step increase in transmission revenue due primarily to the growth in the RAB. There is an increase in depreciation allowance again in part due to the massive increase in RAB. WAMEU considers that this RAB influence is due to unnecessary increases in capex allowances over the years.

WAMEU notes that while the ERA has allowed less capex than was claimed by WP, this is still more than the depreciation allowed further increasing the RAB.

WAMEU comments that this same effect is noted in the distribution part of the draft decision, but not as blatantly

WAMEU has reviewed the allowed asset lives for the WP assets (distribution and transmission) and note that the asset lives permitted are significantly shorter than those applied by other networks in the NEM. What concerns WAMEU is that while allowing longer asset lives would reduce the depreciation amounts included in the allowed revenue, they also imply that WP "turns over" its assets faster than occurs in the NEM, meaning assets that are still used and useful are being taken out of service early and replaced with new assets.

The ERA must drive WP to reduce its RAB. Already there are calls (eg by Grattan and CANEGROWERS[6]) for government owned networks to write down their assets to reflect the "gold plating" and under-utilisation of the network and the analysis by WAMEU highlights that Western Power is in no different situation to other government owned networks.

While WAMEU accepts that the ERA cannot enforce asset write downs, it can address this concern in part by limiting capex more than it has and increasing regulatory asset life allowances to ensure that there is downward pressure on the Western Power RAB.

Further, the ERA can also draw attention to the very high level of the RAB and provide a view that continuing to maintain it will impose unnecessary costs on both current and future consumers, suggesting that government could direct WP to write down the RAB to reflect an optimised network.

[6] See report by Hugh Grant for CaneGrowers and others available at https://bit.ly/2HsZKrS

5. Weighted Average Cost of Capital (WACC)

The weighted average cost of capital (WACC) used in a regulatory decision has the single greatest impact on the allowed revenue. Overstatement of the WACC provides an incentive to over invest and this has been identified by a number of independent observers in recent years. The most recent has been that by the Grattan Institute[7].

Equally, a WACC that is too low can lead to underinvestment leading to the spectre of reduced service performance, lower reliability and more frequent outages. A recent report[8] by the Consumer Reference Group (CRG) commissioned by the AER to provide input to the rate of return review currently underway, indicates that, by and large, networks are oversized for the peak demands they face and that utilisation has fallen, implying that in the exercise of their judgement, regulators have been overly conservative in their assessments for the WACC parameters they use, effectively providing a bias in favour the networks, rather than ensure that the long term interests of consumers is the over-riding requirement.

This submission address the whether the ERA has applied its regulatory judgement to such an extent that consumers have been disadvantaged, but it is clear that in developing the WACC, the ERA has applied parameters to the WACC development that are unnecessarily conservative and so provide an incentive to networks to over invest in network assets.

WAMEU is aware that energy transport firms (government and privately owned) have been earning profits that are well in excess of regulatory allowances. With this in mind, WAMEU is aware that the AER is implementing a methodology to assess the profitability of the energy transport firms to provide the feedback loop essential to assessing if actual network exceeds the expected profitability and so inform whether the allowances for point estimates made in regulatory determinations result in higher than expected profitability. As noted in WAMEU submission to the ERA regarding AA3, such a benchmarking exercise on WACC was recommended by the Productivity Commission in 2012 in its review of the energy networks. WAMEU considers that the ERA should join with the AER in this process and so allow the ERA to carry out similar ex post reviews of WP network profitability and compare this to that which was allowed.

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[7] Grattan: Down the wire: a sustainable electricity network for Australia

[8] Available at https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-rate-of-return-guideline/initiation#step-56636

WAMEU is aware that a recent report by Hugh Grant for CaneGrowers and others (The Winners and Losers of the monopoly Game[9]) highlights that the government owned Queensland electricity networks are extremely profitable; WAMEU considers that Western Power (also a government owned network and sharing many similar features of the Queensland networks) would likewise be an extremely profitable corporation for the same reasons.

A review of WP annual reports show that in FY17 WP had a nominal pre tax return on equity of over 20% and in FY16 a pre tax return on equity exceeding 27%; over the past 5 years, WP has had an average annual pre tax return on equity of ~23%. These are returns on equity WAMEU member firms would be more than pleased to receive, especially recognising that WAMEU members have a much higher risk profile than WP, which has an extraordinarily low risk profile.

It is important to note that in the setting of the WACC for the current period, ERA expected that WP would have experienced a nominal pre tax return on equity of about 8.3% which is about a third of what WP has actually experienced over the past five years. This indicates that the setting of the rate of return allowed by ERA for WP there has been some major issues of excessive conservatism that must be addressed.

WAMEU also notes that recent sales of energy transport firms have been at prices well in excess of the RAB, ranging from multiples of 1.3 to 1.6 times RAB. As a sale price is based on forecast cash flows, this implies that the regulatory approach used by the ERA (and the AER) has delivered allowances that are well above those needed by the benchmark efficient entity (BEE) that both the AER and ERA are meant to use to set an appropriate cost of capital. If there are greater allowances which generate higher cash flows than required this will trigger a higher RAB multiple sale price than unity[10].

The higher the enterprise value for a network firm compared to its RAB, the more it emphasises that the firm is generating free cash flow above that assumed for the benchmark efficient entity. This means that care is needed in setting the parameter point estimate inputs to the Capital Asset Pricing Model (CAPM) approach used by the ERA to set the rate of return of WP.

As is pointed out in the sections below, there are anomalies between the reality of the measured market data and the way the ERA has applied these to generate the WACC for WP. Specifically, while the WACC developed from market data

[9] Available at https://bit.ly/2HsZKrS
[10] See the report by ACCC economist Daryl Biggar "Understanding the role of RAB multiples in regulatory processes"

reflects the entire profitability for firms in the market, the ERA (and the AER) provides additional free revenue from other sources (eg high debt and tax allowances, incentive payments, unregulated revenues from shared assets, etc) which are included within the market data. This aspect is addressed more fully in the following sections.

Additionally, it is not clear to what extent the market is aware of the risks that are transferred to consumers under the regulatory approach and which are not available for firms in competitive markets. The fact that many of the listed network firms have been taken over by overseas firms indicates that the Australian market does not fully appreciate the extent of this risk diminution.

It is clear that the current regulatory approach provides networks with extraordinary returns and those of Western Power are no exception.

5.1 The Benchmark Efficient Entity (BEE)

The ERA places considerable reliance on its assessment of what risk profile for the benchmark efficient entity (BEE) the ERA uses for its model. To reach its conclusions about the parameters for the BEE it has relied on the performance of certain listed network service providers and from this developed a view as to the credit rating, equity beta (risk) and the gearing that should be applied, yet the ERA does not similarly apply the same criterion to its assessment of tax liability and gamma.

The ERA has assumed that the four firms that it uses to inform it about what the BEE might be are Ausnet services, Spark Infrastructure, APA Group and DUET (recently taken over by overseas company CKI which is associated with Spark)

What is important about the BEE is that ERA is required by the national Electricity Objective to ensure that it delivers electricity

> "…in the long run at least cost [to consumers], including that infrastructure are used to deliver the greatest possible benefit…[11]".

This means that the BEE needs to reflect the most efficient way of providing services at the least cost to consumers.

[11]Second reading speech for the NATIONAL ELECTRICITY (SOUTH AUSTRALIA) (NEW NATIONAL ELECTRICITY LAW) AMENDMENT BILL introduced into the SA House of Assembly on 9 February 2005 (Hansard page 1452)

However, what we see is that the ERA is using data to develop the inputs to its WACC development which are not the most efficient in terms of cost to consumers and which allow the network to increase its profitability above that which is deemed to be efficient.

It is not efficient if networks garner a profitability (eg as measured by a pre tax return on equity) which is much higher than the return a firm with a much higher risk profile might deliver.

WAMEU considers that the ERA has not assessed the CAPM inputs in such a way that reflects the reality of the source data used to develop these inputs.

5.1.1 Sources of data to inform the BEE

During the concurrent expert evidence sessions established by the AER in its current rate of return review, it was pointed out that there is significant circularity in drawing data from the market based on the few listed firms operating in the energy transport space to set parameters for the BEE. This is because the performance of the listed firms reflects the decisions made previously by the regulator in its earlier decision. This is particularly pertinent when there are so few firms from which the data can be drawn. The implication of this is that the market data perpetuates the assumptions drawn from it.

At the concurrent expert evidence sessions, it was also highlighted that the numbers of listed network firms has decreased over the years, so there is now only 3 listed firms providing or investing in network assets. A point was made at the concurrent evidence sessions that one of the reasons for the reduction in listed firms is that listed firms have been acquired and privatised, particularly by firms owned overseas. If the reduction in listed firms reflects a desire by private owners to maximise their returns, this implies that the listed firms were not necessarily “efficient” and that there were/are untapped benefits that could come from a more efficient financial structure.

There is an assumption that assessing the financial structures of the listed network firms will deliver the most efficient financial structure for the BEE. This raises an important question. Do the listed firms develop their financial structures to be most efficient for their own needs or for the needs of consumers?

WAMEU considers that the network firms would develop their financial structures to deliver the most efficient outcome for the firms and not the BEE which is to deliver the most efficient outcome for consumers.

There are four key elements that the WACC development assesses;

1. Gearing (the proportion of equity and debt)
2. Return on equity (from the risk free rate, the market risk premium and the equity beta)
3. Return on debt (risk free rate and debt premium)
4. Allowance for tax (gamma)

The small cohort of listed network firms provides a significant challenge to the ERA using such data to derive the financial structure for the BEE. What is of concern is that the three firms currently listed all have quite different characteristics, viz:

- Ausnet Services is a direct owner of network assets and most of these assets are regulated. Ausnet provides some unregulated services but a relatively small proportion of its revenue is from unregulated services, implying that it is highly exposed to direct regulatory processes. Two overseas firms have a significant stake in Ausnet.
- APA is a direct owner of network assets but the bulk of its earnings are from the unregulated services it provides, implying that it has a much reduced exposure to direct regulatory processes and is exposed to much higher risks of earning its revenue. WAMEU also points out that it also provides contracted services to some other energy transport firms to increase its revenue from other sources
- Spark is an investor in firms primarily owning regulated assets
- DUET has been acquired by an overseas firm (CKI which is associated with Spark) which not only has Australian regulated network assets, had assets in the US and generation assets and significant unregulated gas transport assets. In the latter stages of its existence, DUET was exposed to a take over duel which affected the input data derived from its share performance, especially equity beta.

WAMEU does not see how any conclusions about the structure of the BEE can be derived from such a small but quite diverse cohort. While in earlier years the ERA has used other firms involved with investing in networks (eg Envestra and Alinta) or in other firms which invest in networks (eg Hastings), the same concerns about their use for their applicability to the BEE also applies.

This issue is further complicated in that each of the listed energy transport firms (and most of the unlisted ones) have both regulated and unregulated incomes streams and each of the streams have different characteristics and risk profiles.

Data observed from the network firms listed on the stock exchange reflects the financial structures developed by those firms[12]. The regulated part of the firm earns a regulated rate of return on the RAB and the earnings from this are known, certain and stable. This reality clearly implies that the parameters derived from the market data applicable to listed network firms have to be adjusted to reflect the risk profiles of the different activities undertaken by the firm.

However, the BEE is intended to be efficient from the viewpoint of consumers, not from the viewpoint of network firm owners so the BEE structure should be developed to deliver the least cost to consumers, but this is not occurring as the firm would structure itself to benefit its shareholders.

The observed market data used to identify the levels of gearing and equity beta are for the entire firm activities, with its mix of regulated and unregulated activities. The observed market data will therefore not reflect the gearing and equity beta that is appropriate for a firm with a known, certain and stable cashflow and which is a "pure play energy transport network".

Observed data developed by the AER shows that network firms have a lower cost of debt and a lower tax liability than that allowed for the BEE. So as a minimum, the BEE should:

- Have a cost of debt that is at least as low as the cost of debt actually incurred by the network firms. It is not efficient, nor does it deliver the least cost, for consumers to pay more for debt than the network firms actually pay. It is argued that the ERA sets a cost of debt and if the networks can achieve a lower cost, then they can benefit. While this is efficient from the viewpoint of the network firm, it is not efficient for consumers as they pay more for the services than it costs the firm. While this differential is most stark in relation to government owned networks (like Western Power), it also applies in the case of privately owned firms
- Have a financial structure that reduces the cost of providing the tax allowance. On this basis the BEE would have a structure that provides fully franked dividends (a decision by the firm) and which is available to the majority of shareholders on the basis that the network firm is assumed

[12] There are more unlisted firms than there are listed firms. This raises the question as to whether the attraction for buying listed networks firms is a reflection that the listed firms might not have the most efficient financial structures.

> to be owned by Australian taxpayers[13]. If there are some non-Australian shareholders, they will have made their decision to buy shares with the full understanding that they do not benefit from franking credits or they have made other arrangements to gain a benefit.

In the following sections, WAMEU addresses the various inputs to the Capital Asset Pricing Model (CAPM) used to develop the WACC and makes reference to the BEE and the sources of data the ERA uses to develop the various parameters

5.1.2 Has the BEE as implemented delivered an efficient RoR?

Unfortunately there is no established mechanism to assess whether the WACC allowed by regulators (including the ERA) which compares the financial performance of an energy network with the allowances made by the regulator in its decision. Such a feedback loop is essential to test if the regulatory decisions have resulted in efficient costs for consumers. As noted above, the performance of WP in recent years shows that WP has provided a return on equity that is some three times the return on equity set by the ERA.

In theory, the rate of return for the BEE should be set at a level that is just above the level at which networks would not invest. If there is evidence that investment exceeds that which is needed (ie incentivises "gold plating") then the rate of return is too high. In the absence of actual profitability comparisons, the only tool available to regulators is to assess whether the rate of return is providing an incentive to over-invest in assets is whether the firm is still investing and if this investment results in increasing reliability and decreasing utilisation of the assets.

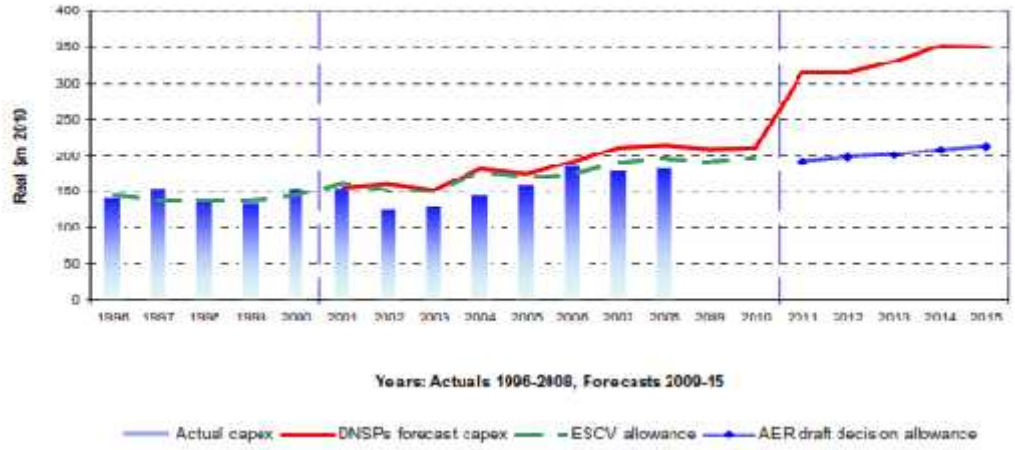
WAMEU considers that there is clear evidence that the WP network is demonstrating a continued investment program and where reliability is improving and utilisation decreasing. WAMEU also notes that this same outcome is occurring in the NEM and replicated in WA.

To test this argument, in the following example, WAMEU uses data for a privately owned firm (Powercor) where ~50% of its ownership is listed (via Spark Infrastructure). If the network continues to seek increases in capex, then this provides a strong indication that the rate of return is too high.

[13] A pointed out during the concurrent expert evidence sessions, the ATO data that is used under the 2013 guideline covers all tax paid by listed and unlisted firms, so the BEE would not necessarily reflect the tax approach used in such a way.

Powercor is the largest of the Victorian electricity distribution networks (which are supposedly amongst the most efficient in terms of capex and opex), has over-claimed capex in its past applications, had the allowance set below the claimed amount and then used less capex than allowed. This is shown typically in the following chart from the AER draft decision made for the period 2011-2015 on Powercor capex

Figure 8.18 Powercor's draft decision capital expenditure ($'m, 2010)

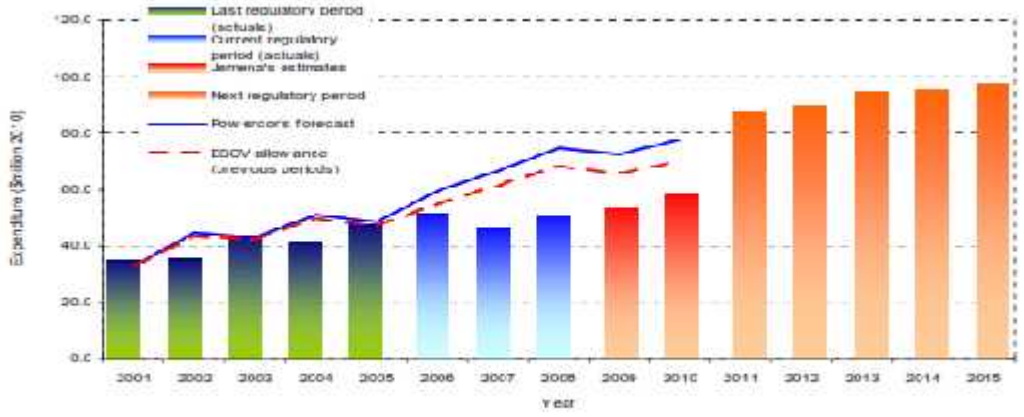


Analysis of allowed vs actual capex across all the NEM electricity transport firms (of which about 50% are privately owned) between the years 2011 to 2017 shows that actual capex has been averaging 72% of the allowed capex[14]

Further, the data on capital investment shows that despite the falls in consumption seen in both electricity and gas usage, network firms have maintained their capex programs in total, with the capex for augmentation falling but countered by quite large increases in replacement and other capex. Again using data from the AER draft decision made for the Powercor 2011-2015 period, the amount of replacement capex has been over-claimed and under utilised with the AER severely cutting back replacement capex

[14] Derived from AER spreadsheet DORIS – D18 –ENA CRG consultancy

Figure 8.5 Powercor RQM capex— historical and proposed ($'m, 2010)



Source RIN templates. These numbers are fully absorbed as historical allocations were not available.

Figure 8.6 AER's forecast on RQM capex for Powercor ($'m, 2010)

Source RIN templates and AER's repex model. Excludes conductor replacement program. These numbers are fully absorbed as historical allocations were not available.

So despite a fall in the need for augmentation capex, al the NEM networks have responded with maintaining (even increasing) their capex requirements by an increase of an overall 30% for replacement capex above that previously used. Analysis of the allowed and actual capex for NEM networks since 2011 shows that the networks use less capex than they claimed was needed.

Further data shows that concurrently with using less capex in electricity networks between 2006 and 2007[15]

- utilisation has fallen by 28%
- DNSP SAIDI has fallen by 18%

[15] ibid

- DNSP SAIFI has fallen by 35%
- TNSP loss of supply events have fallen by 59%

This supports a view that the historical amounts of replacement capex by firms have still resulted in considerable improvements in the networks and that the recent requests for increased amounts of replacement capex are not supported to continue this trend.

If the increased capex is not driven by the need to maintain the reliability of the networks, the only other reason for the increased requests for capex is that the rate of return is providing an active incentive to seek more investment.

WAMEU considers that WP is no different in this regard to the approaches used by networks in the NEM and the same incentives apply.

5.1.3 What is the risk of too low a RoR

The argument for increasing the WACC is that the long term interests of consumers are best served by ensuring that supply is not constrained due to a lack of network investment. At the same time, there comes a point where an increase in the WACC delivers a cost for the service which is too high for consumers to afford. Even in the low interest rate times now applying, (effectively delivering a lower cost for the service) consumers are advising the costs of energy are too high. As interest rates move back towards long term averages, this will only result in higher costs for the service, exacerbating the unaffordability issues consumers are already facing.

It is clear that the current levels of RoR are not constraining capex as the current levels of RoR have not prevented the desire of networks to maintain historic levels of capex, despite the lack of drivers for augmentation capex (augex). While networks have reduced augex due to low growth in peak demand (the key driver of augex), they have replaced augex with higher levels of repex and IT and corporate capex. This implies that the current level of RoR is too high and could be reduced.

If the RoR is reduced, what is the risk to consumers? A lack of needed investment would occur reducing reliability. But in a time where RABs have risen to very high values and there is considerable spare capacity in the network, so the current risk to consumers of too low investment is low and if there is a problem identified where investment needs to be increased, then in four years time, the RoR can be increased.

The tension between price and the other drivers for the network (quality, reliability, security and safety) lies in whether the long term interests of consumers is best served by assuming the current levels of quality, reliability, security and safety will be achieved by a different (lower) rate of return. It is obvious from the performance of the networks that if anything, the current rate of return process has delivered increases in these elements. This implies that the current rate of return is at least adequate for the needs of the network firms and those investing in them. It has been noted that networks have shown a consistent bias where they have over-claimed the amount of capex they consider is needed and yet spent considerably less, while maintaining the required levels of quality, reliability, security and safety.

5.1.4 Summary

It is clear that the current levels of RoR are not constraining capex as the current level of RoR has not prevented the desire of networks to maintain historic levels of capex, despite the lack of drivers for augex. While networks have reduced augex due to low growth in peak demand (the key driver of augex), they have replaced augex with higher levels of repex and IT capex. This implies that the current level of RoR is too high and could be reduced.

There will be a point where the RoR will be loo low for a firm to invest in expansions of the network. This will primarily affect new consumers connecting to the network because the rest of the assets in the network are “sunk”. These sunk assets comprise the bulk of the assets held by networks and to still receive a return on these assets, the network firm must keep them operational. A firm will invest, even at very low rates of return, on new assets if they are needed to maintain the existing assets in a condition that allows the firm to maintain its cash flow.

As the utilisation of the networks is falling and reliability is increasing, a reduction in the RoR would have minimal effect, especially in the short term, as the current levels of utilisation and reliability could readily absorb a reduction in investment with little harm to consumers. As the ERA carries out a reset for each network every 5 years, the impact of any reduction of rate of return between resets could be readily identified before any harm occurs to consumers.

While the clear import of the declining consumption of electricity and flat demand implies that capex should fall, the networks used this reduced need to expand their claims for replacement capex, despite a long term history of under-spending against allowances on capex.

As there is a definite pattern of seeking higher replacement capex than might have been used in the past, even when there is a case for reducing capex, this highlights that past and current rates of return attributed to the BEE have been too high

5.2 Risks faced by energy networks

The network firms face a very low risk compared to firms in the competitive sector. In relation to the NEM, the AER produced a table highlighting the extent to which the NEM rules limit the systematic risks faced by networks[16]. There are similar rules applying to Western Power.

In the case of WP, the risks that the network does not face can be summarised as follows:

- Under a revenue cap, sales volume risk is with consumers.
- Assets are protected from optimisation and technology risk
- All capital invested is recovered in full (no write down risk)
- Future investments are fully underwritten
- Opex is not benchmarked to international best practice
- Debt is set at Australian costs but firms can access debt at lower overseas costs
- A tax allowance is provided even if the network does not face taxes or tax costs are lower
- Pass through of costs to consumers is allowed for changes in laws, regulation and for catastrophes

It is these risks that are not accorded full recognition in the assessment of the equity beta and market risk premium but the assumption is made the lack of these risks is fully addressed within the setting of the equity beta but this is not the case, as is discussed in more detail below.

In fact, the risks faced by networks is so low that during the recent concurrent expert evidence sessions under taken by the AER, the expert nominated by investors to the panel commented (page 74 of the unproofed transcript session 2)

[16] For example, see Table 3-3: Key clauses in the rules that mitigate systematic risk FINAL DECISION AusNet Services distribution determination 2016 to 2020 Attachment 3 – Rate of return May 2016

> "And a lot of investors recognise that as a feature of the current framework which is, you know, a fixed MRP over a bond rate that moves, and that is seen particularly for long-term investors, superannuation funds they want their members to have exposure to Australian macro-economic variables. **They see this as a resetting bond in that circumstance**. So they understand that in absolute sense, even though they are investing their equity for a long time, 99 years, they accept that during different five-year periods they are going to get an absolute return that is a function of the bond rate, and that's priced into the way the investment works." (emphasis added)

The clear implication of the statement that investors see investment in regulated networks as a "resetting bond" is that the investment is seen more in terms of extremely low risk and not as a risk that equity holders consider they face.

WAMEU agrees that the risk profile of regulated networks should be seen more as a bond (ie debt) than as equity as the risks normally faced by equity holders have been mostly transferred to consumers. If this is the case, then it raises the question as to whether using an equity beta based on the relative volatility of share prices in the stock market (where investors face all of the systematic risks) is an appropriate measure to assess the underlying risk faced by the network firm where most of these systematic risks have been transferred to consumers.

5.3 About the CAPM and the parameters used to set the return on equity

WAMEU is aware of the work carried out by the Consumer Reference Group (CRG) established by the AER as it undertakes its review of the rate of return. The CRG has lodged with the AER its submission regarding its concerns regarding the use of the Capital Asset Pricing Model (CAPM) in the development of a rate of return and the various inputs used to populate the parameters in the CAPM. WAMEU agrees with the CRG conclusions about the CAPM and the development of the parameters.

Rather than reiterate what is included in the CRG submission, WAMEU highlights the key aspects of the CRG submission.

- The CAPM is a tool for managing risk within a share portfolio rather than one for developing a return on physical assets
- The CAPM approach measures the profitability of a portfolio of listed firms, and this includes the sources of revenue from all sources. In contrast, the rate of return developed by the ERA provides only part of the revenue, as

WP will get additional revenue from the incentives provided for opex and reliability, from unregulated revenue (eg using the shared assets to raise more revenue) as well as from under-running the allowances for opex, capex and for debt and tax. Applying the CAPM approach to the rate of return results in a double counting. To overcome this double counting, the calculated market risk premium applied to WP needs to be discounted.

- As noted above, there is a paucity of firms that the CAPM relies on to inform on equity beta, and the equity beta (which measures share price volatility) needs to exclude the systematic risks that that networks do not face
- Effectively, to apply the CAPM outcomes to set the rate of return is flawed and overstates the recovery of the systematic risks that networks face, as many of these risks have been transferred to consumers

5.4 Return on equity

There are three elements for the return on equity – the risk free rate, the market risk premium and the equity beta. Of these three, two are probably independent of the financial structures established by the network firms but equity beta is impacted by the financial structure of the firms. Equity beta is intended to provide a reflection of risk faced by networks.

As noted above, none of the listed network firms used to inform on gearing and equity beta are a close match for the BEE, as they all have varying amounts of activities and revenue from sources that are excluded from the BEE – effectively this means that the listed firm comprises a number of sub entities of which only one reflects the BEE and the others with higher levels of risk.

As with gearing, the risk profile will be different between the sub-entity reflecting the BEE and the other sub-entities unregulated sub-entity, with the regulated sub-entity having a lower risk profile due to its income stream which is known, certain and stable. The clear implication of this is that the equity beta for the entire entity will be higher, and the equity beta of the BEE expected to be lower than that observed for the entire entity.

5.4.1 Risk free rate

WAMEU supports the approach to setting the risk free rate based on the 5 year CGS, as this term reflects the regulatory period. WAMEU is aware that the AER currently uses the 10 year CGS but WAMEU agrees with the ERA reasons for setting the risk free rate on 5 year CGS.

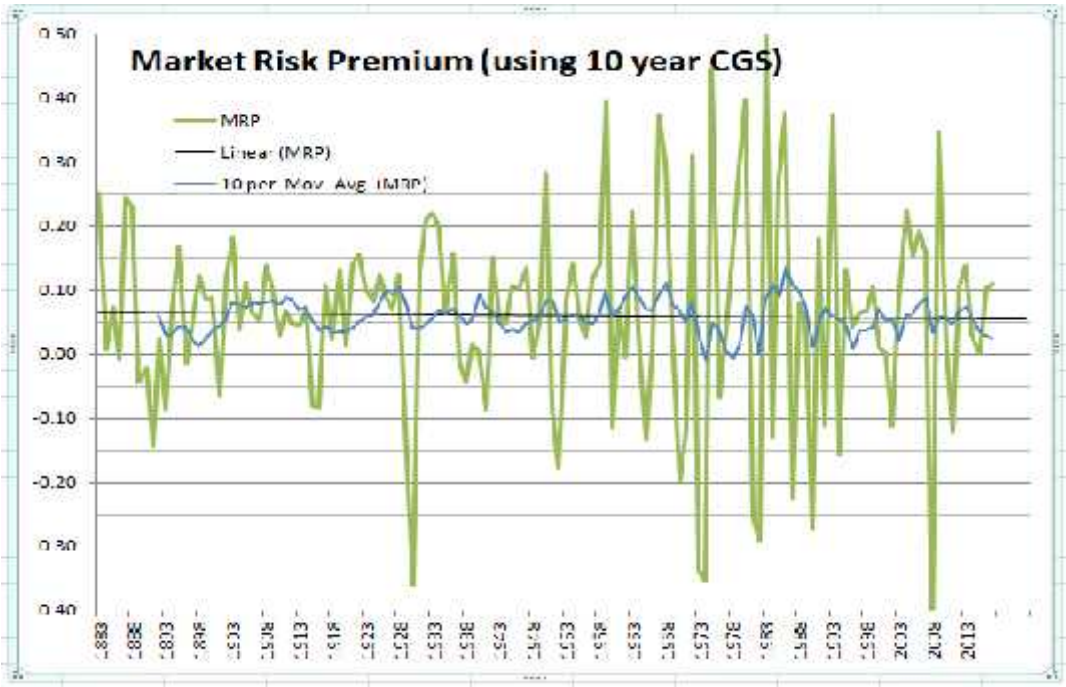
WAMEU understands that Energy Networks Australia (ENA) has proposed to the AER that the averaging period for calculating the risk free rate could be as long as 12 months as this is a more stable measure and less exposed to the volatility that shorter averaging periods introduce, especially the 20 day period currently used. WAMEU proposed a longer averaging period in its response to the 2013 review. In contrast, the 20 day average provides a value which being closer to the time of setting the forward looking rate of return.

The CRG has advised the AER that an averaging period of 3 months is a good balance between limiting volatility and setting a rate of return reflecting a forward looking value. WAMEU agrees with the CRG.

5.4.2 Market risk premium

The CRG submission to the AER addresses a number of fundamental concerns about the development of the market risk premium (MRP) used in the CAPM.

- As noted above, there is effectively double counting. As the MRP reflects the full value of the rewards generated by the firms listed on the ASX, for the ERA to allow additional revenue in the form of reward for incentives, unregulated income, and under-running opex, capex, debt and tax allowances means that the allowance included in the rate of return needs to be discounted for these other benefits. This can only be achieved by reducing the MRP from the observed levels.
- While the ERA uses the ASX MRP to set the allowance for WP, many firms on the ASX actually secure debt and equity from overseas. The benefit of this source of funds is embedded in the ASX MRP yet the ERA assumes that WP will access all of its debt and equity from Australian sources, increasing the double counting effect. This implies that perhaps the ERA should be guided in setting the MRP by overseas MRP measures
- The ERA uses the arithmetic mean of the MRP values over the years to set the MRP. In fact, there are very good reasons to use a geometric mean as the geometric mean is a better averaging tool where there is significant volatility in the data points being measured. The following chart measures the MRP since 1883, and includes a linear trend line and a 10 year moving average trend line



Source: Data from AER

A review of the movements of the MRP shows that since the late 1950s, there has been a major increase in volatility of the annual average MRP. Using the geometric mean would result in a significant reduction in the MRP, by as much as 150 basis points.

- In recent years, there has been a structural change in the usage pattern of electricity, with consumption flat or falling. This means that for electricity transport networks, there is a disconnect between the growth factors for networks and the service they provide. This implies that the use of the dividend growth model (DGM) in assessing a MRP for networks is probably flawed.

While the current ERA assessment has calculated that the MRP lies within the range 5.6 to 7.6, the ERA has decided to use an MRP towards the lower end of this range, at 6.2.

WAMEU considers that for the reasons above and provided by the CRG to the AER, the MRP should be closer to the geometric mean of 4.0 (as measured for the period 1984 – 2017 which reflects when most the changes to open the Australian economy were implemented) and to reflect that WP should not get a reward for risks it does not face and for the revenue it receives from other sources.

5.4.3 Equity beta

The CRG submission to the AER details that equity beta is a measure of share price volatility relative to the movements of the ASX prices overall. It is not a measure of risk faced by network service providers, although it is assumed this is the case.

It is apparent that the CRG did not attempt to argue the detail of development of the equity beta but more to highlight that the measure needs to be addressed more in a top down way to demonstrate that the observed data is unreliable and the measure needs to be adjusted downwards.

- As noted above, the risks faced by networks are much less than those faced by firms in a competitive market, such that network firms are seen more a resetting bonds (ie debt).
- The apparent volatility seen of the share prices of the few listed network firms is not consistent with the certainty of the cash flows they have from their regulated assets, implying that the volatility seen is more a function of share price trader activity moving in and out of defensive stocks than of the risk fundamentals of the firm
- The measured equity betas for the few listed network stocks does not reflect the nature of the BEE as all of the listed networks have revenue sourced from unregulated activities (especially APA Group which has a very low proportion of regulated networks and extensive income from unrelated activities). To apply the measured equity betas for the listed firms overstates the equity beta that would apply to the BEE.
- The concept applying a higher equity beta as this will ensure there will be appropriate new investment (ie capex) is flawed as there are incentives for capex embedded in the rules. So the equity beta for the BEE should be set at a level commensurate with the investments made already and reflect the risks transferred to consumers by the rules.

The ERA has set the equity beta at 0.7 based on the data derived from the market. WAMEU considers that the analysis provided by the CRG provides sufficient evidence that there should be an active bias downward for the point estimate of equity beta. Effectively, as there is a range of equity betas measured from the market, the mid point should be used and then biased downward to provide a point estimate.

It is of great concern that the ERA has increased the equity beta used in the 2013 review (0.65) to 0.7 in this draft decision implying there has been a fundamental change in the risk profile faced by WP. There has been no increase in risk profile at all yet the ERA draft decision implies that the WP activities are more risky than in 2013.

This demonstrates that the approach of setting the equity beta as measured from the small cohort of firms listed on the ASX is essentially flawed as a tool for assessing the risks faced by the network represented by the BEE.

The CRG recommends to the AER that the equity beta should be in the range of 0.4-0.7 and the midpoint of this range used. They comment (page vii)

> "The CRG notes that transactions for businesses containing regulated entities imply RAB multiples in the range of 1.3 to 1.6. It is reasonable to assume that the asset risk is higher for the unregulated parts of the business and the realisation of efficiency improvements than it is for the regulated asset. Adjusting for this bias would move the observed range from 0.4 – 0.7 to about 0.2 – 0.5. The evidence suggests the AER should choose a value below the mid-point of this range."

5.4.4 Summary

WAMEU considers that:

- The risk free rate should be the 5 year CGS, probably averaged over 3 months
- The market risk premium should be closer to 4.0
- Equity beta should be 0.4 or lower

5.5 Return on debt and debt risk premium

WAMEU notes that the CRG response regarding debt has not been fully explored as the AER has issued another discussion paper regarding the provision of debt.

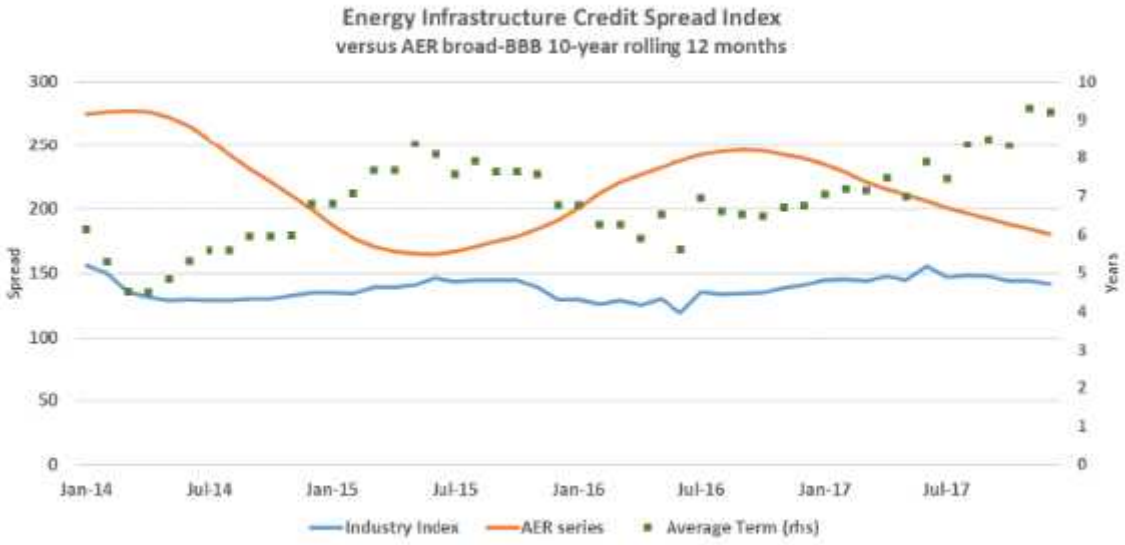
WAMEU concludes that the ERA approach to debt essentially relies on similar data to the AER in that the debt risk premium is calculated from the issue of Australian 10 year corporate bonds[17], which is the highest costing debt available

[17] The WAMEU notes that the process used by the ERA does carry out some averaging to develop a debt risk premium and apply this debt risk premium to a forward looking debt basis

to BBB+ rated firms, noting that the ERA assumes that the BEE has a credit rating of BBB+. As with other market generated data to inform the BEE, the ERA has assumed that the observed credit rating for the entire entity is the same as that for the BEE sub-entity. In fact, the sub-entity with its low risk and secure known cash flow would have a higher credit rating than the entire entity.

Recent analysis work by Chairmont[18] for the AER provides a fascinating assessment of the actual debt costs incurred by all eleven privately owned networks which reinforces the views of consumers that the AER (and probably the ERA) has been granting the networks a higher debt cost allowance than they are actually incurring. Chairmont provides the following chart

Figure 2 The current AER approach compared against EICSI[39]



Source: Chairmont, AER data.

This shows that the term of debt used by networks has cycled between 5 and 9 years and that the actual debt risk premium (DRP) has been consistently between 130 bp and 160 bp above the floating 3 month bank bill swap (BBSW) rate which Chairmont used as its default risk free rate. In contrast, the AER debt cost series varies between 160 bp and 220[19] bp implying that, on average, the AER has been allowing networks a premium of 50-60 bp on debt costs

[18] Available as Chapter 7 of the AER Discussion Paper – Estimating the allowed return on debt. See https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-rate-of-return-guideline

[19] It is interesting to note that in the "aughties" this was the range that regulators used for the debt risk premium and this did not create concerns for the networks at that time

Chairmont comments that the fairly constant DRP has been obtained by varying the debt terms, with debt terms varying between 4 years and 9 years. For the ERA to continue to use a 10 year corporate bond rate imposes a premium on consumers that the networks do not incur. WAMEU attaches to this submission (as appendix 1), the most recent response to the AER by its NEM affiliate Major Energy Users regarding the cost of debt. WAMEU considers that the MEU view provides sound arguments to support a reduction in the debt risk premium used by the ERA in its draft decision.

On this basis WAMEU considers that the ERA needs to reassess the DRP and to reduce the allowance to a value more closely representing the actual costs of debt and the term that the privately owned firms actually incur. Specifically, the ERA needs to reassess whether corporate bonds should be assumed to be the lowest cost source of debt available to the BEE. As the BEE has to reflect efficient financing practices, it is inefficient to assume that the BEE would source its debt using the highest cost source of debt (corporate bonds) and for terms longer than necessary recognising that the longer the term of a bond, the higher the cost.

It is also important to state that if the ERA does not reduce the cost of debt to these levels it will be contributing to the outcome that additional revenue will be grated to WP that is already included in the assessed value of MRP.

5.6 Gearing

In assessing the gearing for the BEE, if it is accepted that the allowed rate of return is efficient (and is not higher than is efficient[20]) the market value of the RAB must be the RAB. That means the remainder of the market value of the firm beyond the RAB is the market value of the sub-entity that provides the unregulated services. While this allows an easy assessment of the proportionate market values between regulated and unregulated services, it is more challenging to assess the extent to which the debt is allocated by the firm to finance the RAB and how much is allocated to finance the unregulated assets and activities. As the risk profile for unregulated services would be expected to be higher than that for providing debt for the regulated assets where the income stream is known, certain and stable, using the observed market data for the firm's asset value coupled to the book value of the firm's debt will understate the level of debt that is allocated to the regulated sub-entity. The clear implication of this is that, at best, the observed gearing for the entire entity is a floor for the BEE, with

[20] Most consumers consider that the rate of return is higher than needed

the gearing of the BEE expected to be higher than that observed for the entire entity.

There are a number of concerns WAMEU has with the ERA approach to setting the gearing for the BEE by using market data.

- The gearing assessed is by deducting the actual debt from the market value of the firm. As noted above, all of the firms used to inform the market data have varying degrees of revenue from sources of investment other than from the sub-entity that reflects the BEE. The assumption made by ERA is that the gearing for the BEE is that same as the entire entity. In fact, the gearing for the BEE, having a much lower risk profile than the other activities which are in the competitive market, would have a higher gearing than the entire entity exhibits.
- A number of the cohort of firms used to inform the CAPM parameters include subordinated debt which is assumed to be equity; it should be treated as debt
- The ERA has assumed that the gearing observed in the cohort of listed firms reflects the BEE, yet it has not questioned why this apparent reduction in debt might have occurred in more recent times, compared to the levels of debt seen in earlier years (especially during the GFC when the cost of debt was higher than now) when observed gearing was close to 70%. The risk profile of the BEE has not changed significantly from these earlier times, so there is an inconsistency in the data. WAMEU considers that this is because of the growth of revenue seen by these firms from other sources than from the regulated sub-entity. A case in point, is APA where its source of revenue from sources other than it regulated assets has approached 80% or more of its total revenue, reflecting its higher risk profile and therefore lower levels of debt.

WAMEU does not consider the ERA is correct in reducing the gearing to 56% when history shows that when the cohort of firms had a structure more closely related to the BEE the gearing was close to 70%, implying that gearing for the BEE should be set at 70%

5.7 Inflation

Historically, the forecast of inflation was based on the approach used by WP and the ERA for this decision. In recent times, there have been concerns that the use of indexed bonds to provide a forward looking value for inflation was not accurate enough and the AER has changed to using RBA forecasts instead.

WAMEU supports the ERA in its decision to use indexed bonds to provide this parameter.

5.6 Value of imputation credits (gamma)

The allowance for tax allowance assumes that the network firms have the same tax profile as the average of all firms in the market as a whole. But the ERA is to assess what gamma might be for the BEE and not what applies across the market.

In this regard, the BEE would be classified as a defensive stock with a mature asset base. With this in mind, these firms would address taxation differently to what a growth stock might do. Because of this concern, the CRG identified that the distribution rates for the three listed firms all exceed unity[21] with APA having a distribution rate of 191%, Spark a rate of 161% and Ausnet a rate of 126%[22]. This supports the view that market data for the listed network stocks do indeed reflect a different approach to taxation to what the broader market does.

This approach is confirmed by Martin Lally who assessed the distribution rate for the top 20 ASX listed firms and calculated that the distribution rate for these firms was 0.83, presumably because these firms are well established and not still in a growth phase where cash is needed by firms[23].

What also was noted in the concurrent expert evidence sessions established by the AER was that there is a general consensus that there is clear evidence that the ATO statistics are flawed and therefore the outcomes that flow from this work (and used by the networks, their experts and even, to some extent the regulators and the Competition Tribunal) is also flawed.

This issue was also addressed by the CRG in its submission to the AER as part of the rate of return review and the submission addressed both the aspect of the distribution rate and utilisation rates.

With regard to utilisation rates, the CRG observes that the BEE is predicated on the assumption that debt and equity are sourced in Australia. This means that as

[21] This is the case even though these listed firms have unregulated revenue as well as that from the regulated assets
[22] Yahoo Finance 2 March 2018
[23] Firms in a growth stage withhold dividends to finance their expanding capital base. As even the top 20 ASX firms are also growing, then the 83% calculated by Lally might also be understated for a firm like the BEE with little need for withholding tax to fund its growth.

all equity is assumed to be held by Australian entities, they can and will make use of the dividend imputation if the dividend is franked. This means that utilisation must be unity. While it is recognised that the listed networks do have overseas investors, this is not an assumption embedded in the BEE.

With empirical data implying a distribution rate in excess of unity and a utilisation rate reflecting that all equity is from Australian investors, the CRG determined that the value for gamma would be unity.

WAMEU considers that this assessment is significantly different to the value of gamma the ERA applies to the BEE to be in the range of 0.25 to 0.41 and the point estimate is well below what would be expected for a firm reflecting the characteristic s of the BEE.

WAMEU also points out that recent analysis of tax paid by networks is considerably less than the tax allowance provided by the AER to the privately owned networks in the NEM[24]. This reinforces WAMEU that the ERA has grossly understated the value for gamma and so. WAMEU attaches to this submission (as appendix 2), the most recent response to the AER by its NEM affiliate Major Energy Users its views regarding the regulatory approach to the tax allowance. WAMEU considers that the MEU view provides sound arguments to support an increase in the value of gamma to that used by the ERA in its draft decision.

5.9 Regulatory judgement

The historical profitability of WP reflects that over the years, WP has enjoyed considerable commercial benefit from the approach taken by ERA in setting the WACC. This has resulted in an unnecessary transfer of wealth from consumers to WP and its government owner. The cost of the network imposed on consumers provides considerable benefit to the owner of WP and effectively becomes a form of indirect taxation.

Because the outcomes for the WACC parameters do not specifically identify point estimates, the ERA is required to exercise its judgement in a way that achieves the National Electricity Objective (NEO). This means that the ERA needs to apply its judgement to deliver the most efficient way of providing services at the least cost to consumers. Put another way, the ERA should set the WACC at a level that just avoids limiting efficient investment in the network, and this will be

[24] See https://www.theage.com.au/politics/federal/fears-of-400-million-a-year-power-price-gouge-triggers-probe-20180514-p4zf7n.htm l

achieved by selecting point estimates for the WACC development to deliver a lower WACC than from the point estimates it uses.

While the arguments provided above do not explicitly quantify what the various input parameters for the WACC, they do provide some guidance in the exercise of regulatory judgement which effectively underpins the setting of the WACC.

5.10 Summary of WAMEU input parameters for the WACC

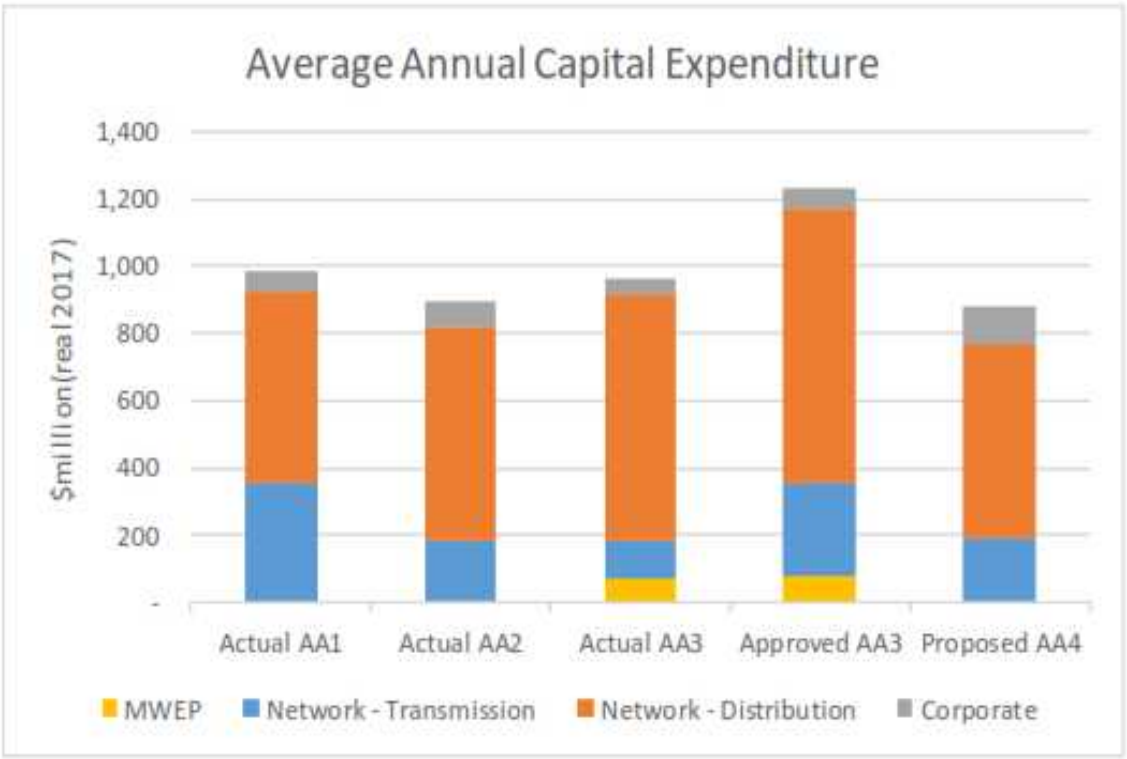
The following table compares WAMEU assessment of what constitutes reasonable WACC development with the ERA draft decision.

Parameter	**WAMEU recommended set point**	**ERA DD set point**
Risk free rate	Based on the nominal 5 year CGS	Based on the nominal 5 year CGS
Inflation	1.84%	1.84%
Debt premium	140 bp	261.3 bp
Gearing	70% debt	56% debt
MRP	400 bp	620 bp
Equity beta	0.40	0.70
Gamma	1.00	0.40

6. Capital Expenditure (capex)

In its report to the ERA on historic capex, Geoff Brown & Associates (GBA) provides evidence that WP has been consistently averaging over $900m of capex per year, with allowed capex for AA3 being the highest amount averaging over $1.2 Bn pa. The capex proposed for AA4 is only marginally under the actual capex incurred in AA2 period as the following chart from the GBA report shows

Figure 2.1: Actual, Approved and Proposed Total Capex ($ million, real 2017)



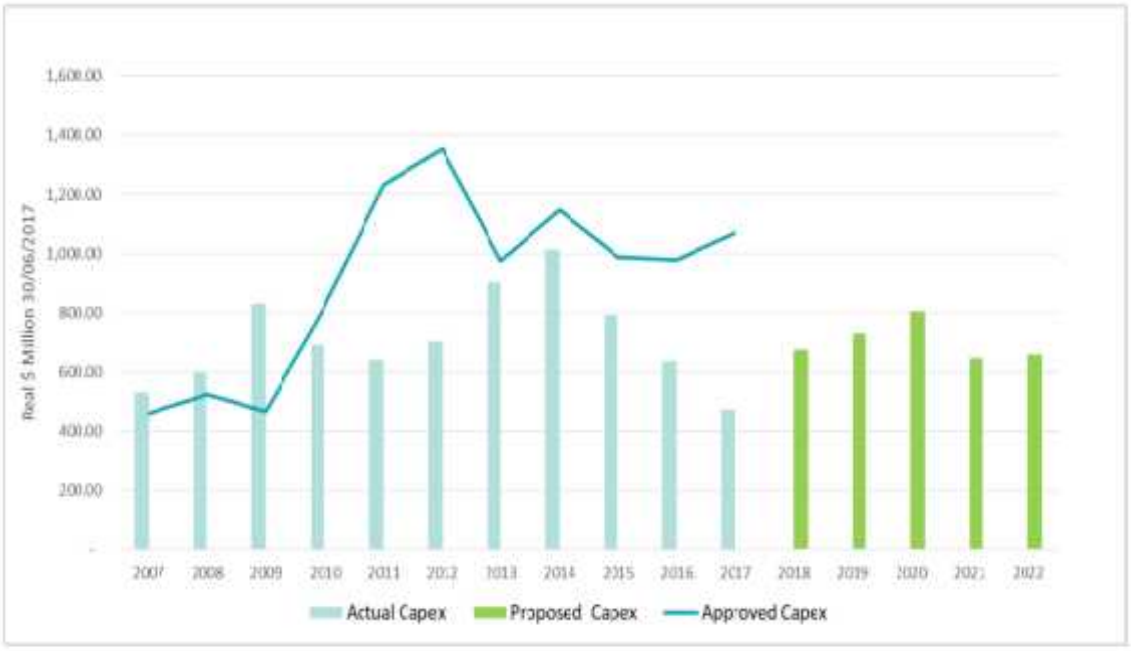
WAMEU points out that this excessive capex is the primary cause of the massive growth seen in the WP RAB over the last decade. The fact that the RAB in relative terms (ie in customer numbers and peak demand) has doubled over the past decade (see section 4) provides a view that much of the actual capex may well have been inefficient.

There is little doubt that in the early stages (ie AA1 and perhaps AA2) there possibly was a need for such investment as a “catch up” and to accommodate forecast increases in peak demand but as noted in section 3, peak demand has been relatively flat in the SWIN since the start of AA2 period and customer

numbers have increased at a fairly constant long term low rate of about 1.5% pa (even during this “catch up” phase) as well as during AA3 and forecast for AA4.

However, despite being allowed large amounts of capex in AA2 and AA3, WP did not actually use the allowances and significantly under-ran the allowances, as shown in the following chart from the draft decision

Figure 9 **Western Power net capital expenditure (excluding gifted assets and cash contributions)**



It is worth highlighting that in the last 8 years, WP has underspent the capex that was allowed by some $2.57 Bn and as a result consumers have contributed unused revenue yet the cost of that allowance was included in the prices consumers had to pay. By underspending on capex over the last 8 years, WP was able to gain nearly $200m in unearned revenue.

The following table provides a view of the transmission and distribution capex comparison as well as the total capex for WP.

Transmission capex $m ($'17)	AA4 Draft Decision	GHD table 64 direct costs	AA4 Western Power Proposal	AA3 Actual	AA3 Forecast	AA3 Actual less AA3 Forecast
Growth	196.8	212.7	291.4	617.2	1,154.20	-537
Asset replacement and	161.8	145.9	296.2	186.3	184.1	2.2
Improvement in service	110.7	89.9	108.4	60.3	81.3	-21
Compliance	117.4	95.3	186.9	111.9	135.6	-23.7
Corporate	132.9		167.6	81.6	125.8	-44.2
Total	**719.5**		**1,050.60**	**957.2**	**1,683.80**	**-726.6**
Distribution capex $m ($'17)	**AA4 Draft Decision**	**GHD table 40 direct costs (excl gifted assets)**	**AA4 Western Power Proposed**	**AA3 Actual**	**AA3 F/cast**	**AA3 Actual less AA3 Forecast**
Growth	500.2	564.60	490.3	592.1	1,083.90	-491.8
Asset replacement and	1,253.70	1,099.10	1,277.30	1,613.00	1,579.80	33.2
Improvement in service	70.9	53.9	113.3	24.6	35.8	-11.2
Compliance	184.9	160.3	181.3	460.6	567.9	107.4
Corporate	319		401.4	170.2	208.9	-38.7
Total	**2,328.80**		**2,463.90**	**2,860.30**	**3,476.10**	**-615.8**
Total capex $m ($'17)	**AA4 Draft Decision**	**GHD tables 40, 64, 68 direct costs (excl gifted assets)**	**AA4 Proposed**	**AA3 Actual**	**AA3 F/cast**	**AA3 Act less AA3 F/cast**
Growth	697	877.3	781.7	1109.3	2238.1	-1128.8
Asset replacement and	1415.5	1245	1573.5	1799.3	1763.9	35.4
Improvement in service	181.6	158.8	221.7	84.9	120.1	-35.2
Compliance	302.3	245.6	368.2	572.4	703.5	-131.1
Corporate	451.9	394.9	569	201.8	334.7	-82.9
Total	**3048.3**	**2921.6**	**3514.5**	**3817.5**	**5159.9**	**-1342.4**

Source: ERA DD, GHD report

There are a number of concerning aspects to the capex that this table and the foregoing charts show.

1. There was $1.34 Bn of claimed capex in AA3 that was not used, and the bulk of this was caused by the expected growth allowed for in AA3 not eventuating.
2. A significant amount of the under-run in capex is related to deferral of projects from one regulatory period to another. While not incurring capex in a period would reduce increases in the RAB (at least for a short time) the deferrals impose costs on consumers that WP did not incur. WAMEU considers that, as a minimum, the unearned revenue from not implementing the proposed capex programs in AA2 and AA3 should be deducted from the capex allowance for AA4.

3. The amount of capex allowed in the draft decision will lead to a further increase in the RAB, in both nominal terms and in relative terms (see section 4). As the RAB is already at a level that is imposing hardship on consumers, WAMEU considers that there is a need to reduce the RAB in relative terms and, as a minimum, the RAB should be maintained at a constant level. To achieve this will require the allowed capex not to exceed the depreciation allowance built into the asset base roll forward model.
4. As observed in section 3, there was some growth in peak demand during AA3 (particularly in 2016 and that this did need to be accommodated with capex to manage the growth. However, since 2016, the actual peak demand is seen to be declining and this is supported by the forecasts made by WP for the 10%POE estimates for AA4. On this high level analysis, there s surplus capacity in the networks implying little need for any growth capex.
5. The assumption that as the actual repex during AA3 was greater than the allowed repex, there is a need to maintain the repex at much the same level as that occurring in AA3. However, WAMEU notes that when providing repex from AA3, the ERA specifically identified that the repex allowance for AA3 was 50% more than the actual repex in AA2 and there was a recognition that repex for AA3 needed to be increased above the long term trend. WAMEU points out that repex (especially in distribution networks) has characteristics similar to opex in that it is a recurring cost rather than a series of “one off” costs. WAMEU considers that the ERA should look more closely at why the repex for AA4 is being held closer to AA3 levels rather than AA2 levels.
6. As WAMEU notes in section 4, there is a concern that WP has a depreciation schedule which implies shorter asset lives than are seen by most of the networks operating in the NEM. If assets are being retired based on their expected lives for each asset type rather than their useful lives, then this would account for a higher repex than would be expected.
7. Corporate capex is increasing both in absolute terms and relative to total capex. Capital intensive WAMEU members highlight that corporate capex should be relatively constant and not increase
8. As the network has already been built to match much higher peak demand levels expected in the past this implies there is considerable spare capacity (see section 3) in the network. This would mean that there would be no need for any growth capex other than for customer contributions. It also implies that the assets are more lightly loaded and therefore expected to have a longer life than allowed in the depreciation schedule.

9. There are number of elements where GHD recommendations are lower than the ERA draft decision. WAMEU, while considering the GHD estimates are too high, it is concerned that the ERA has increased the GHD allowances.

While the WAMEU is aware that GHD has provided advice to the ERA on the proposed capex program from WP, the GHD approach is very "bottom up" and addresses the capex program on the basis that WP has decided what the network needs. To a large extent the ERA has followed the same process. Effectively, both the ERA and its consultant have addressed the capex allowance on a bottom up assessment based on the requests by WP.

While a bottom up review is necessary and sensible, WAMEU points out that its members follow a similar approach. However, once the ambit claim has been submitted, the decision process for the capex determination by the firm is made on the basis as to what capex can be accommodated within the corporate financial structure while maintaining competitiveness in the market place while not seeking to raise new equity or breach borrowing limits. This imposes a cap on what capex is available. Unfortunately this discipline is not imposed on WP by the ERA

As the capex allowance effectively becomes a cost to consumers, the ERA needs to assess the capex allowance in terms of what consumers can afford to pay. As noted in section 2, the cost of networks services is becoming increasingly less affordable with consumers not supportive of increased prices.

WAMEU is very concerned that there has been no attempt to demonstrate that the planned capex has been demonstrated to be efficient – in that the capex will result in lower costs elsewhere for which consumers are required to pay.

For example, WAMEU notes that a large element of the proposed corporate capex relates to depot renewal. While WAMEU considers that capex which reduces other costs (eg opex) needs to be investigated, there is no clarity that the value of this capex to consumers delivers a larger benefit to consumers than not investing. As noted in section 7, this capex would have to deliver an opex reduction of more than $16 pa[25] to justify the expense. WAMEU agrees with the ERA that WP needs to prove that there is a net benefit **to consumers** for the injection of the capital before it agrees that the renewal process should proceed.

However, this $184m project is only a small part of the total capex budget.

[25] Includes both return on the capital and the return of the capital involved

A large amount of capex is devoted to wood pole replacement, WAMEU is very concerned about the allowance for wood pole replacement as this was an issue for AA2 and AA3 where significant amounts of capex were allowed for wood pole replacement yet in both AA2 and AA3, WP did not use all of the capex that is was allowed for this task. Consumers paid a higher service price to include for this work that was subsequently not done, giving WP a significant windfall through not carrying out work that it stated was essential. This work, some now deferred for up to 8 years, is now to be included in the allowed capex for AA4. WAMEU considers that this issue of wood poles needs further investigation.

WAMEU points to the proposed advanced metering program and points out that the experience in Victoria where a roll out of advanced meters was mandated to be carried out by the networks, consumers have seen little value from the program. While theory implies that advanced metering should be beneficial to consumers (see table 30 in the GHD report), there is scant evidence from Victoria that consumers have received sufficient benefit to offset the costs involved. WAMEU considers that the ERA needs to carry out deeper investigations to demonstrate that there is a benefit to consumers to offset the considerable cost of the allowed AMI capex program.

WAMEU notes there is considerable capex devoted to “improvement is service”. WAMEU raises two key points:

- The improvement in service must deliver a demonstrable benefit to consumers, yet there is no evidence provided that this delivers any quantifiable benefit to them that they value or have a “willingness to pay” for
- The service standards are already at levels that consumers consider delivers acceptable electricity supplies and there is little appetite for higher prices, even if service standards improve.

On this basis WAMEU considers that greater investigation into whether the increased costs involved to provide this improved service match the generally expressed views of consumers that current prices are already too high and that they do not want to pay more for higher standards

Conclusion on capex

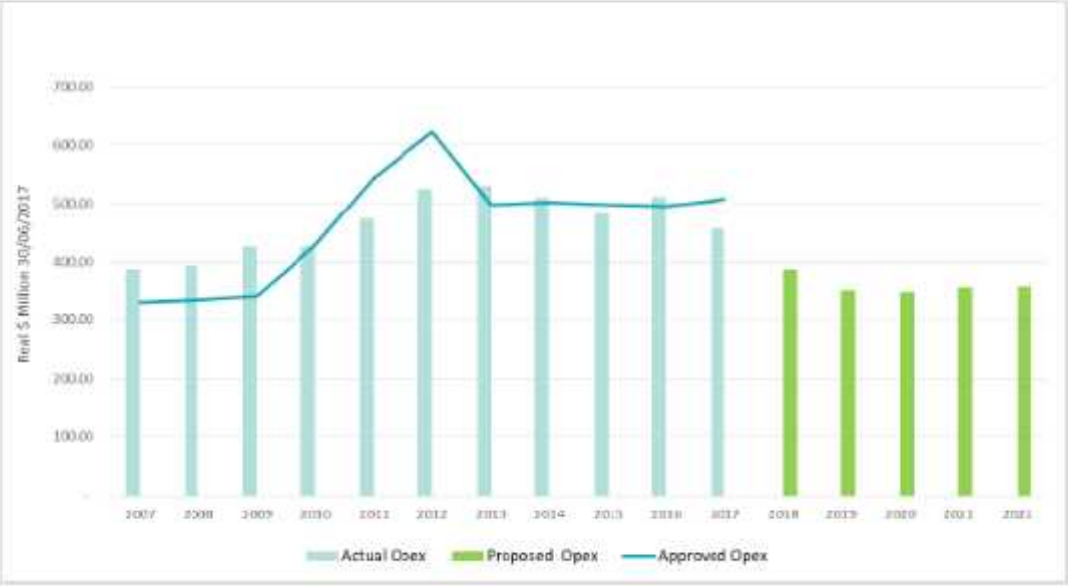
WAMEU considers that the allowance for capex is too high and will impose increased costs on consumers that increase the unaffordability of the WP services provided.

WAMEU considers that to reduce this unaffordability problem, the capex allowance should be capped at the value of the value of the depreciation so that the RAB does not increase further.

7. Operating Expenditure (opex)

WAMEU notes that WP has proposed to reduce its opex from AA3 levels to demonstrate a drive to being more efficient. The following chart shows the reduction and WAMEU welcomes the commitment to reducing opex.

Figure 8 **Western Power actual and proposed operating expenditure (real $ million at June 2017)**



Source: ERA DD

The MEU notes the continued use of the base-step-trend approach to setting future opex allowances, with the inclusion of various escalation factors. While WAMEU is not convinced that the various scaling factors are really legitimate[26], it accepts that these are the same as the AER developed in its better regulation program in 2013 and continues to use.

The detailed analysis carried out by GHD on the opex allowance is welcome and thorough. While the use of the base-step-trend development of the opex allowance in previous years provided some comfort to consumers that opex allowances were not unnecessarily increasing, the process effectively "locks in" any inefficiencies occurring in previous times. Opex benchmarking has introduced a tool to identify the extent of any inefficiency from the past and its implementation has resulted in some benefit to consumers. The outcome of the extended debate of allowed opex in the NSW electricity distribution networks

[26] For example, the WAMEU does not consider that corporate costs increase at the same rate as other costs

review for 2014-19 is a clear example of where these earlier inefficiencies had been locked into the opex allowance.

WAMEU is concerned that the benchmarking carried out by WP consultant Synergies shows WP as being very efficient in its opex (near the efficient frontier in comparison to other Australian networks). In contrast, the benchmarking work carried out by GHD using the AER approach has WP in the "ruck" of all networks, implying that WP is not near the efficient frontier, and needs to reduce costs more.

From the GHD analysis, it would appear that the opex for WP is relatively efficient when benchmarked with other similar networks in the NEM, specifically the SA Power Networks and ElectraNet in SA combined and the ERA has agreed with this conclusion. What is of concern is that generally productivity across all electricity networks in Australia is falling whereas productivity in the competitive sector is increasing, driven by a need to continually improve. Unfortunately, electricity networks, including WP, are not subject to the same pressures as firms in the competitive sector and this has permitted this gradual decline in network productivity that is being seen.

Acceptance by ERA that WP productivity as benchmarked is acceptable is of concern to WAMEU because, as noted above, the general trend across all networks, productivity is falling, to the detriment of electricity consumers.

WAMEU is also concerned that the ERA did not recognised for AA2 and AA3 that the amounts of capex invested in previous years should have resulted in reduced opex and increased efficiency, so the opex reduction for AA4 is welcome in partial recognition of the allowed capex over previous years and the business transformation program (BTP). WAMEU also notes the concerns raised by GHD that the previous and new capex should reduce opex allowances, especially in SCADA and communications.

WAMEU observes that WP seeks $184m in capex for depot modernisation and notes the ERA view that further opex reductions should eventuate from this proposed investment. WAMEU considers that any replacement capex needs to be justified on the basis of a cost to benefit analysis but particularly any capex that is proposed on the basis that there will be efficiency benefits needs these benefits to be detailed in order to demonstrate that the capex is efficient.

For example, the cost for the depot modernisation is proposed to be $184m and the cost of capital and return of capital involved (amortised over say 40 years) will be about 9% in nominal terms. This means that the modernisation investment has to deliver more than $16m pa in opex savings to be demonstrably efficient.

On the basis of the opex reduction offered by WP, it is clear that the savings from the proposed depot modernisation project are not included in the current proposed opex. If the modernisation project is approved, then the allowed opex needs to be reduced by at least $16m pa.

The following table provides a comparison between the WP proposal, the GHD recommendation and the ERA draft decision for the AA4 opex allowance.

AA4 opex $m ($'17)	WP proposed	GHD recommended	ERA DD
Efficient base year	**1,588**	**1,588**	**1,557**
Step changes	-25	-25	-36
Total recurrent opex	**1,563**	**1,563**	**1,521**
Network growth escalation	47	29	0
Efficiency dividend	-48	-47	-45
Non-recurrent opex	34	34	1
Expensed indirect costs	189	188	200
Labour cost escalation	20	15	19
Adjustment AMI comms		-11	
Adjustment SCADA		-36	
Regulated revenue cap 5 year opex	**1,805**	**1,735**	**1,695**

Source: GHD report, ERA DD, WAMEU analysis

WAMEU notes that the ERA draft decision includes the GHD proposed adjustments and excludes the allowances for the business transformation program and electricity market review program. WAMEU agrees with both of these decisions for the reasons the ERA states.

In particular, WAMEU notes that WP significantly under-ran its opex allowance for AA3, even while incurring costs for its Business Transformation Program – BTP – and this is shown in the following chart.

Figure 7.2: AA3 historical and AA4 forecast opex including indirect costs and escalations, $ million real at 30 June 2017

Source: WP AAI

While the BTP might have contributed to reducing opex, it must be pointed out that consumers effectively paid for the program through the capex allowance and still provided WP with a significant under-run on opex. WAMEU does not expect to have to continue to pay for the BTP into AA4. WAMEU points out that firms in the competitive sector implement programs like the BTP just to remain in business with the costs not being passed onto their customers.

Conclusion on opex

Overall, WAMEU considers that GHD and ERA have approached the allowance for opex in a sound and thorough manner and the conclusions reached are supportable. However, WAMEU considers that benchmarking still indicates that WP is not at the efficient frontier for its opex and that further reductions are possible. In particular, WAMEU considers that the significant amounts of historic capex should have delivered more opex reductions than has been identified by GHD and ERA, and that increased productivity of the WP operations are not only possible but are required to match the productivity gains made by competitive industry.

8. Service standards and incentives

WAMEU makes the observation that across the electricity supply sector, electricity consumers are seeing electricity as an increasingly unaffordable but essential service. WAMEU considers that the cost of the WP services is a significant contributor to this unaffordability problem.

WAMEU sees that in general, WP is enjoying significant bonuses from exceeding service standard targets and yet the new targets do not require WP to have to work hard to enjoy a bonus. At the same time, WAMEU makes three very important observations:

1. At what point does the cost of the improved service reach the value that consumers place on this improvement? Maintenance of bonuses for improved services merely add to the prices of the WP services. WAMEU notes that the ERA does attempt to assess the value consumers place on this increased reliability, but it is now getting to the point where consumers would prefer to see a reduction in prices and remain with current (even slightly lower) service levels.
2. The use of the base-step-trend approach to opex provides an opex allowance which effectively allows the delivery of the current service levels so bonuses are easier to gain
3. Consumers provide the underwriting of the capex used to deliver the improved service, and are then required to pay a bonus on the delivery of this improved service. This is inequitable and needs to be taken into account when setting capex allowances

While supporting the all the changes ERA proposes for the service standards and their targets, WAMEU considers that the ERA should implement a requirement that the 97.5th percentile for all reliability benchmarks except circuit availability which is to be at the 2.5th percentile (call centre performance excluded).

While WAMEU supports these benchmarks, it considers that the benchmark should be assessed on the basis of a rolling 5 year performance so that the benefits of later performances are automatically rolled into the benchmark. As the benchmarks are incentivised to show a continuing improvement in performance, the rolling 5-year performance approach provides continuing pressure to improve performance and limits the ability of WP to get easy bonuses.

9. Pricing

As noted in section 2 above, transmission pricing is to increases at a much faster rate than that for distribution and WAMEU has questioned why this is the case. WAMEU considers that both elements of the draft decision should increase at much the same rates and there is no clear explanation as to why there is a differential.

What is clear from the draft decision (and the WP application) is that the growth of the RAB is the core reason for such significant increases and that prices for the network services offered by WP are amongst the highest in Australia.

Pricing of services should be structured to ensure that the assets are used to their maximum, and not to provide arbitrary penalties for maximising utilisation. WAMEU notes that both the goldfields and Albany have assets that are near maximum limits and WP proposes to increase penalties for maximising the use of these assets. This is inconsistent with seeking maximum utilisation.

WAMEU notes ERA amendment 21

> "Western Power must provide cost information to support its proposed Excess Network Usage Charges, including the factors applied for different geographical areas."

WAMEU notes that pricing is the method for converting the allowed revenue into a form that allocates the costs to each end user of the network, presumably on an equitable basis where prices are reflective of the costs required to deliver the services. It is not intended and nor should it be a tool for transfers of wealth between end users or for additional revenue raising for the network service provider (NSP). In this regard, WAMEU observes that the allocation of costs for a highly utilised asset should result in lower costs for those using the assets. Conversely, where an asset is lightly loaded for much of the time, the consumers connected should be paying for the spare capacity that is only used occasionally[27]. To penalise users of a highly utilised asset is against the concept of equitable allocation of costs!

Currently WP imposes on end users penalties for exceeding their contracted demand through an Excess Network Usage Charge (ENUC). Such a penalty is assumed to provide an incentive for end users to operate within their contractual

[27] The WAMEU also points out that if WP has oversized the assets so there is excessive capacity that is not utilised at all, then there is an argument that consumers should not be required to pay at all for this over-investment

limits. As pricing is an allocation of costs, it is not clear why there should be any penalty applied at all if WP does not incur any additional costs, and certainly not one where the penalty varies with a WP assessment of utilisation. At its most basic, WAMEU considers that any penalty must only apply if there is danger of the assets being overloaded. At this point, the most effective tool available to WP is to limit the usage of those end users exceeding their contract limits in order to prevent exceedance of line limits.

WP could also apply a different pricing methodology used in other jurisdictions, where commonly the contract demand is ratcheted to the observed peak demand seen in a set period (eg the previous 12 months) or where the demand element of a tariff is based on the peak demand observed in the highest 10 peak system demand days as in Victoria.

WP proposes that applying a higher penalty to demand over-runs on highly loaded assets will incentivise better utilisation of the assets, yet it fails to highlight that WP Distribution is also a significant user in these regions, often causing the peak demand to be exceeded, but WP will absorb these penalties for itself, effectively only imposing the penalties on direct connected transmission customers. This is inequitable.

The example quoted by WP of the Goldfields and Albany regions highlights that the assets are highly utilised and this is what end users would prefer to see, rather than paying for assets that are oversized for the loads they experience. WAMEU accepts that with highly utilised assets, there is a greater risk of exceeding the safe rating of the assets if there are unexpected demand increases, but WP has other tools available to limit this risk, such as those noted above.

As the application of a revenue cap implies that the revenue raised for exceeding contract demand will be passed back to other users of the network, WAMEU asks why should users (say) in Geraldton get a lower price for the use of under-utilised transmission assets because users in the goldfields and Albany are utilising the assets they need to the maximum.

WAMEU noytes that not only will WP continue its practice of penalising end users for exceeding their contract demand levels, but proposes to further increase these penalties. The proposal to increase penalties on highly loaded assets is based on a flawed assumption that users of those assets will either relocate their facilities or reduce demand when the assets are near capacity.

The first option, relocation, is not going to happen as electricity delivery is needed where the demand is. The penalties might prevent new consumers connecting

but they will have a marginal affect on existing customers because they have little ability to change their location or even their usage pattern.

The second option encompasses the points raised by Mr Schubert in his submission to the WP application. Where is the value in imposing penalties when there is no risk of overloading? What WP needs to do is ensure that each customer pays for the capacity it uses and to ensure that the assets are not overloaded. The proposal to increase the existing penalties in two regions for exceeding contract demand is contrary to equitable cost allocation for use of the assets, and does not recognise that existing end users have little opportunity to avoid the increased penalty. With this in mind, WAMEU asks what does the increase in penalty achieve, other than implement some revenue raising?

At the most basic level, WAMEU does not support the concept of the ENUC and considers that the ERA is in error by not requiring removal of this penalty charge. WAMEU considers that the WP approach does not meet the requirements of the rules which implicitly require prices to be cost reflective and not distortionary. Imposing penalties is not cost reflective and distorts a fair cost allocation methodology.

WAMEU is very concerned that the application of increased penalties will result in increased revenue for WP which will then be passed back to other consumers through application of the revenue cap. This will result in a transfer of wealth to consumers on less highly utilised assets without achieving any definite benefit to consumers as is required by the National Electricity Objective.

Major Energy Users Inc.

28 May 2018

Mr Warwick Anderson
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By email to: rateofreturn@aer.gov.au

Dear Warwick

Estimating the allowed return on debt
Discussion paper

The Major Energy Users Inc (MEU) thanks the AER for providing the opportunity to provide input into the AER review of the rate of debt that will assist in the development of its revised guideline on setting the allowed rate of return (RoR) for regulated energy transport networks through the release of its Discussion paper May 2018.

The MEU notes that its Public Officer (Mr David Headberry) was a contributor to the AER Consumer Reference Group (CRG) report which provided consumers views on the various elements contributing to the overall rate of return guideline. The CRG noted in its report that some aspects of the rate of return on debt were not fully developed pending release of further information by the AER. The release of the discussion paper provides more information that the AER has acquired so this MEU response should be seen more as a continuation of the CRG response to the AER on the rate of return overall and more specifically the CRG commentary on the return on debt.

The MEU observes that the report from the CRG was quite concerned about the sources of information that the AER uses for various parts of its RoR guideline and the extent of the transfer of risks away from networks that are embedded in the rules. This MEU

response to questions raised by the AER in its Discussion paper is influenced by the concerns expressed by the CRG.

One of the issues that the AER has failed to assess within its Discussion Paper is that there is now empirical evidence (from the Chairmont report) that the AER has allowed networks a considerable premium between the allowed cost of debt and the actual costs for debt incurred by the networks. This differential is observed in the work carried out for the AER by Chairmont, where over time the average premium allowed by the AER over the actual cost of debt incurred by the networks is some 70 basis points. Effectively consumers paid the networks ~70 bp more to the networks to acquire debt than the networks actually paid when averaged over the past 4 years; this is not efficient and is contrary to the national energy objectives.

The MEU notes that the regulatory approached used in Australia is one where there is an incentive on the network firms to reduce their costs and for these lower costs to be transferred to consumers over time while allowing the network firms to benefit from the lower costs in the short term – the theory of such an approach is that if a firm operating in the competitive environment is able to reduce its costs then it will be able in the short term to benefit from these lower costs before its competitors "catch up" such the firm loses its competitive advantage.

What is actually occurring is that the AER has allowed the networks to not only to have an unearned benefit at consumers' expense by allowing a cost of debt well in excess of the actual costs but for networks to fully retain this benefit. This is contrary to the concept of incentive regulation. The AER must look to rectify this anomaly.

It is apparent from figure 2 of the AER discussion paper, that the networks have remarkably maintained a fairly constant cost for debt (appearing to mostly lie within a band of 130 bp and 150 bp[28] relative to the 90 day bank bill swap rate - BBSW) over the past 4 years and have varied the term of debt to achieve this outcome; debt terms range between 5 years and 9 years with an average of about 7½ years. At the same time, AER figure 2 also highlights there is an inverse relationship between the AER allowed debt premium and the average term of debt.

The MEU considers that the AER has to implement an approach to setting the debt allowance that more reasonably matches the actual costs of debt, perhaps changing the settings (eg the term of debt, the credit rating and/or the source of independent data) to replicate the actual outcomes seen, as suggested by Chairmont in its report. The MEU notes that the AER attempts, at least in part, to replicate this advice in figure 4 of its discussion paper.

[28] See graph 1 of the Chairmont report

Credit rating

Firstly, the MEU points out that the credit rating that the AER should use for its guideline needs to be based on the credit rating of the Benchmark Efficient Entity (BEE). The CRG noted that there is currently no listed or unlisted network that perfectly matches the BEE in that all of them have other revenue streams not related to their regulated assets which have, as the CRG noted, extensive protections from systematic risks and a certain and known future cashflow. This means that the credit rating noted for the entire entity reflects a credit rating that not only provides for risk of the sub-entity of the firm's activities that is related to what is equivalent to the BEE but to more risky activities which do not enjoy the benefits granted by the rules. This means that the credit rating identified for the firms are likely to understate the credit rating that the BEE would enjoy.

Secondly, the MEU points out that gearing of a firm has a significant impact on the credit rating of a firm. While the AER has provided a listing of the credit ratings for various firms that provide network services, the AER has not provided any analysis about the extent that gearing might have on the credit rating on each of the firms that it has based its assessment.

Thirdly, the MEU is aware that credit rating alone does not set the cost of debt, and firms (even countries) with the same credit rating do not have the same cost of debt. This raises the spectre that the AER sets a cost of debt based on a given credit rating but where the firm enjoys a lower cost of debt. This feature is discussed by the AER in chapter 9 of its paper where the AER uses a mix of two credit ratings (broad BBB and broad A) as a test to match the observed cost of debt[29]. While the MEU observes that the trace of the allowed debt moves downward closer by about ~10-15 bp to the observed average cost of debt, there is still the inverse relationship between debt term and the AER allowed rate, and still there is a significant premium between the new trace and the actual costs incurred by networks, implying that more is needed to develop a source of debt based on independent sources that does not result in consumers paying a premium..

The MEU does not consider that the observed data reflects the reality of the BEE and its low risk profile as the revealed data includes for more than the BEE activities. The MEU considers that rather than taking an average of the revealed data, the AER should recognise that the revealed data is conservative and needs to be adjusted to a higher level of credit rating.

In this regard, the MEU considers that the credit rating for the BEE should be A or A-, similar to that shown for ETSA and Ausnet which probably more closely reflect the BEE than other firms in the AER listing.

[29] See AER discussion paper figure 4

Third party yield provider

While the MEU supports the use of third party data to inform the AER about the cost of debt, it has a very real concern that using a third party data serries results in an allowance for the cost of debt that overstates the cost of debt that is actually achieved by the networks.

The MEU considers that attempts to provide an independent source of data should not result in higher allowances than are efficient. The MEU points out that the work by Chairmont gives clear evidence that the use of the current data sources provide allowances for the cost of debt significantly higher than the cost incurred by the networks and so the AER needs to find an alternative source of data that more closely replicates the actual costs incurred by the networks.

The MEU is also concerned that the development of the various sources of data by the various providers is not transparent which leads to a concern that although the data is from a third party, there is no certainty that the data is appropriate or if the development is biased in some way. Without a clear and transparent methodology for the development of the outturn data, there is a concern that the data is not a fair representation of the cost of debt or that the extrapolation and interpolation carried out by the AER deliver sensible and appropriate outcomes.

While the AER seeks views on the appropriateness of the four different sources of data, it also highlights that all four series have failings to a greater or lesser extent. This implies that to overcome these shortcomings, some degree of combination of the data series is not only appropriate but necessary.

The MEU considers that the AER needs to carry out some testing of various combinations of the data series available and test these against the actual outturn assessments carried out by Chairmont in order to identify which grouping and weighting of the various series delivers the best match for the observed cost of debt.

The benchmark term of debt

The MEU considers that the AER assessment of the way each network addresses its debt is flawed in that there is an assumption that every network addresses its debt in the most efficient manner which will be in the "…long term interests of consumers …". In fact, each network will address its debt management in the interests of its shareholders and therefore will be unique to each network.

This is despite the observation in the Chairmont report which shows that generally the networks seek to hold the debt premium[30] relatively constant and to vary the term of debt to achieve this outcome. At the same time, the MEU notes there is an inverse relationship between the debt premium allowed by the AER and the term of debt used by the networks (see AER figure 2). This means that as debt terms become shorter in order to hold the cost of debt at a constant level, the AER still uses 10 year corporate bonds which deliver a significant increase in the allowance to the disadvantage of consumers and a significant windfall to the networks.

If the actual cost of debt is held relatively constant over time, the MEU considers that the term of the debt should not become the driving force in the setting of the allowance for the cost of debt with an observed debt premium being the key input.

The MEU considers that even if the average term of debt observed from the Chairmont report (ie ~7½ years) was used as the benchmark, the MEU is concerned that this will still result in the networks being provided with a debt allowance that exceeds their actual costs and so impose an unnecessary and inefficient cost on consumers.

The MEU notes that the AER and the Chairmont report is still using data from network firms that do not match the BEE as all networks have activities other than those that are addressed by the BEE. On the basis that these other activities do not reflect the unique status of the BEE (ie where many of the risks faced by the networks are removed by the rules), the cost of debt actually incurred by the networks would be higher than the costs incurred by the BEE, even if the BEE and the network shared the same benchmark credit rating[31].

The MEU considers that the AER needs to do more modelling than just what has been done based on 10 year debt terms. For example, the MEU considers that as well as modelling a mix of credit ratings (as for figure 4) the AER should carry out a similar exercise where the term of debt is varied to see if this results in an outcome which more closely matches the observed cost of debt.

The AER comments that they are aware that the network firms also access debt via banks as well as from bonds. Typically, bank debt has a shorter term than bonds, resulting is an average shorter term for all debt than is evidenced by bonds. With this in mind, the MEU considers that modelling a mix of debt terms (eg 4 year bonds as a surrogate for bank debt and 7 year bonds for longer term debt) might reveal a better match to the observed data than seen by mixing credit ratings.

[30] Chairmont uses the 90 day BBSW rate as the variable to assess the debt premium
[31] As noted earlier, the MEU is aware that the costs of debt even for firms with the same credit rating vary based on other criteria assessed by a debt provider

An alternative approach

The AER implemented the trailing average approach to debt as this more closely replicated efficient debt management by the networks. Equally in the past, regulators used to identify a debt risk premium and apply this to setting the debt "on the day"

Debt is set annually and ultimately to be averaged over a 10 year window, so if the AER makes an underestimate for debt in one year, it has the ability to adjust the debt allowance the next year. Further, as the trailing average approach has been in place for most networks for some years, based on Chairmont's analysis, all of the networks should be in a position of over-recovery of the debt allowance.

This means the AER has the ability to now implement a new approach which does not greatly disadvantage networks in the short term and allows the AER to be a less conservative in setting a new approach to debt until the next rate of return review in 4 years time. With this in mind the MEU suggests the AER implement the following approach:

- The AER should estimate a debt risk premium based on the Chairmont analysis of (say) 150 bp
- The debt allowance for 2019 should be the 90 day BBSW plus the identified debt allowance
- Chairmont or the AER to review the 2018 actual debt data and incorporate it into the debt cost series (as it has already done for the years from 2014) and refine the debt risk premium to be applied for 2020.

As this approach uses aggregated data from a number of sources, it effectively provides an independent source of data, but data which is specifically related to the cost of debt applying to regulated networks and will still allow the networks seek improvement in their approach to the cost of debt.

Conclusions

The MEU is pleased that the AER has identified there is a need for the benefits of better financing practices by the networks to be shared with consumers[32] as this is a tenet of incentive regulation and is a sentiment not previously explicitly expressed by the AER. The MEU agrees with the AER that it has to ensure the benefits of efficient debt raising strategies flow through to consumers.

The MEU considers the AER Discussion paper raises as many questions as it answers, but an over-riding concern is that the data being used for the analysis results in outcomes

[32] See para 1, page 35 of the Discussion paper

that might not apply to the BEE, as the data is based on networks which carry out activities other than that assumed for the BEE and because the networks are required by their parent entities to undertake debt raising activities which reflect the needs and requirements of the parent (and its wider activities) rather than be efficient in terms of the needs of consumers that are serviced by the BEE.

The MEU considers the AER needs to do more modelling exercises to see if it can develop an approach to debt which can use third party data series but which results in a much closer match to the observed cost of debt. In this regard, the MEU considers the AER should examine the impacts of different debt terms as well as credit ratings to see if a neater match can be developed.

As a minimum, the MEU considers that the AER needs to carry out more modelling incorporating more variations (eg mixes of input data curves, credit ratings and debt terms) of likely inputs to see if there is a mix which results in a close comparison to the observed costs of debt.

If such a closer comparison is not possible, the MEU suggests that the AER have Chairmont implement an annual review of observed data to develop a reasonable debt risk premium above a variable benchmark (such as the 90 day BBSW used in the Chairmont analysis work) with the debt allowance applied to the latest value of the variable benchmark each year.

Should the AER require additional explanation as to the concerns expressed herein, please contact the undersigned.

Yours sincerely

David Headberry
Public Officer

Major Energy Users Inc.

28 May 2018

Mr Warwick Anderson
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Australian Energy Regulator
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By email to: TaxReview2018@aer.gov.au

Dear Warwick

Review of regulatory tax approach
Issues paper

The Major Energy Users Inc (MEU) thanks the AER for providing the opportunity to provide input into the AER review of regulatory tax approach that will assist in the development of its revised guideline on setting the allowed rate of return (RoR) for regulated energy transport networks through the release of its Issues paper May 2018.

The MEU notes that its Public Officer (Mr David Headberry) was a contributor to the AER Consumer Reference Group (CRG) report which provided consumers views on the various elements contributing to the overall rate of return guideline. The CRG noted in its report that some aspects of the regulatory tax approach did not reflect the basis that the allowed rate of return should be based on the benchmark efficient entity (BEE).

Further, the MEU observes that the report from the CRG was quite concerned about the sources of information that the AER uses for various inputs to its rate of return guideline, the extent that the rules transfer risks away from networks and that the rules provide an outturn revenue greater than is implied by the building block approach. This MEU response to questions raised by the AER in its Issues paper is influenced by these concerns expressed by the CRG.

The AER observes that tax paid by the networks shows that government owned networks paid more tax than that allowed by the AER and that the private networks paid less. What is not examined in detail is why this might be the case.

Tax payable is essentially based on the profits that a firm makes. The profit made by a firm is the excess from the revenue it receives after allowing for the costs in getting that revenue. The AER tax allowance is based on the assumption that its allowed revenue provides the total profit to the network being in the return on equity element of the WACC*RAB calculation. In fact, the networks also get an increase in profit from other allowances and sources of revenue excluded from the building block approach.

These increased profits come from:

- The difference between the allowed cost of debt and the actual cost of debt[33]
- Under-running the allowances for opex and capex
- Inflation of the regulatory asset base
- Payments from the EBSS, CESS and STPIS incentive schemes designed to increase efficiency
- Revenue allowed from the sale of shared access to the regulated assets to third parties

Most of these other sources of additional revenue have little cost so they provide a significant increase in profitability[34], thereby leading to a greater exposure to tax payments.

Consumers have consistently pointed out to the AER that networks have achieved higher profits than those included in the revenue allowance but, in contrast to privately owned networks, government owned networks have little ability to implement tax savings measures like privately owned networks can. The MEU considers that there is also little desire for the government owners for tax minimisation, as it means little to the government owner if the return it gets from the network comes as a network dividend or as tax payable under the National Tax Equivalent Regime (NTER)[35]. When considering the increased profitability enjoyed by the networks, this explains why the AER tax allowance for government owned networks might be lower than the actual tax payments observed. The MEU considers the AER needs to carry out a more in-depth analysis of the

[33] The MEU notes that the AER has identified that, as well as government networks having a lower cost of debt based on the low cost governments access debt, the privately owned networks achieved a considerable profit margin on the cost of their debt (see for example Chairmont report "Aggregation of Return on Debt Data" provided with the AER review of allowed return on debt Discussion paper)
[34] This point is exemplified in the recent report by Hugh Grant for CaneGrowers and others available at https://bit.ly/2HsZKrS and in the response by WAMEU to the draft decision of ERA on Western Power
[35] It is even probable that the government owner would prefer the tax paid as the network could seek to limit its dividend and retain some of its profits for reinvestment.

tax paid by government owned networks as, implicitly, paying a higher amount of tax only occurs if the profit generated exceeds the profit assumed by the AER in the building block.

This analysis also highlights that, although the privately owned networks benefit from the rules much the same as government owned networks, the privately owned networks have tools available to them to reduce their tax liabilities. Even with the higher profitability that the rules deliver to networks, the AER points out that the privately owned networks have been able to still maintain a lower tax cost than the AER allowance despite enjoying the higher profitability they get. This means that the real differential between allowed and actual tax payment when measured on the same basis, is probably even greater than has been observed.

The first part of the Issues paper addresses sources of data to inform the AER about the amounts of tax paid by networks.

While the MEU considers the AER has identified in its Issues paper the best sources of information about tax matters applying to the networks, the MEU points out that there are concerns about even these sources of data in that market data does not provide information about the tax which would be payable by the BEE. The BEE is a theoretical concept which has no real equivalent in the market whereas the market data reflects the structure and approaches of actual entities which do not match the BEE in several key aspects[36].

Under the post tax revenue model (PTRM) used by the AER, the AER is required to include for tax payable by a network firm but to adjust this where shareholders would otherwise benefit from the tax paid. This has led to in-depth discussions as to the extent that the firm distributes the benefit from the tax it pays and the number of shareholders that can utilise the benefit. In the PTRM, the extent to which shareholders can benefit from tax paid is set by the value of "gamma" (the multiple of the distribution rate and the utilisation rate).

In its current rate of return guideline, the AER calculated gamma as 0.5 but later revised this downward to 0.4; network firms have consistently sought a gamma value of 0.25. The calculation of gamma has been based on various studies and assessments which are supposed to reflect what is seen across all firms listed on the ASX. Listed firms have a range of different ownership structures and different drivers about what to do about tax imputation. The basis of the AER approach assumes that the BEE is like the average of all listed firms, but the BEE is not like the average.

[36] These differences are detailed in the CRG response to the AER of the rate of return guideline

It is the use of market data that has led to observation that AER allowances for tax liabilities are more that what has been observed, implying that the market data and/or the approach used is flawed.

As the CRG noted in its response to the AER deliberations on the rate of return guideline, a listed firm which is an growth phase might seek to maximise its holding of cash by not paying some tax liability (ie by not fully franking its dividends) so that the unpaid tax has to be paid by the shareholder. While the studies of tax payable by all firms listed on the ASX might imply that the "average listed firm" does not fully frank its dividends, the MEU (and the CRG) considers that a firm with mature technologies, a static market and little need to retain earnings for growth (such as the BEE) and a secure cash flow (as enjoyed by network firms) would have little reason not to fully frank its dividends.

The CRG observed that the three remaining ASX listed network firms (Ausnet, APA and Spark) all had provided their shareholders with franking in excess of unity as this gave more value to their shareholders by effectively returning some capital; this supports a view that network firms would fully frank their dividends, reflecting the unique features they enjoy. The AER adviser Dr Martin Lally also came to a similar view that network firms would highly (if not fully) frank their dividends and his assessment of the top 20 firms listed on the ASX confirmed this conclusion.

To show that the BEE is different to all other listed firms requires examination of how the AER develops its building block approach to develop the allowed revenue for the BEE.

The AER assesses that the funding of the BEE is from Australian sources in that it sources input data for:

- The market risk premium used in the CAPM to be a value calculated from the accumulation index of all firms listed on the ASX weighted in accordance with the Australian ASX market capitalisation of firms. By using this measure and not other overseas measures, and using a risk free rate based on Australian government 10 year bonds, it implies very clearly that the BEE must be assumed to be an Australian firm with its equity sourced exclusively from Australian shareholders[37].
- The cost of debt allowance used by the AER in its trailing average approach to debt is assumed to be sourced exclusively from Australian corporate bonds.

[37] If the network is assumed to have some overseas equity or debt then the AER would have to set the WACC based on a mix of equity and debt from local and overseas sources. But this does not occur, leading to the conclusion that the BEE is exclusively funded locally

These two observations imply very clearly that the BEE is an Australian firm funded by Australian shareholders with no influence from non-Australian debt, reinforcing the view that the firm has only Australian roots.

When the BEE is considered in these terms, then there is no doubt that dividends from the BEE would only be expected to be distributed to Australian tax payers who are also beneficiaries of tax imputation. This supports a view that the utilisation rate should be assessed as unity.

The MEU does recognise that a firm has the ability to reduce the tax it pays depending on what it might require cash for that otherwise would be paid as tax. However, networks have little need for additional cash as the rules provide a revenue allowance that delivers the necessary free cash flow to maintain the firm's operations. With this in mind, the BEE would most probably have a distribution rate of unity, and this view is supported by the data observed from the listed network firms.

This, admittedly a theoretical approach, implies that the need to source data from the market to inform on what tax allowances should be provided is not necessary to the extent implied by the AER Issues paper.

The MEU is very concerned that in attempting to secure accurate data from the market is not only exceedingly difficult (recognising that actual tax data is confidential) but confusing as well. The MEU has noted that over the years through their appeals to the Competition Tribunal, the networks have been able to use the paucity of "clean" data as a tool to get consumers to pay a higher allowance for tax than the network firms incur and therefore more for their network services than necessary. The very fact that the Federal government has initiated a review[38] indicates that the current approach is demonstrably not complying with the national energy objectives.

Based on earlier comments, the MEU considers that an approach based on accessing market data is basically flawed as the BEE would have to manage its tax affairs differently to what listed firms might be able to do. This means the data which can be sourced from the various network firms really have little to do with what the tax payable by the BEE is as all of the network firms have different features and so the tax approach by each is unique to them.

The MEU considers that the AER is getting lost in the masses of data that is available from the various network firms but by doing so, loses sight of the fact that they should assess the tax payable on the basis of the BEE.

[38] For example "Frydenberg asks energy regulator to probe electricity price-gouging claims" AFR May 15 2018

The second part of the AER Issues paper addresses the relative importance of the various drivers available to a privately owned network to reduce its tax payable.

The MEU agrees with the listing of the drivers included in the tables 5.1 and 5.2 but considers that the ownership structure is a core element of how a network might seek to reduce its tax payable. Specifically, the MEU is aware that dividends can be delivered to shareholders in more ways than one. A common way is for the equity to be provided in a form of debt where the interest payable on the debt is equivalent to the dividend payable. By converting the equity to "debt" allows the cost of the "interest" to be deducted as a cost, reducing the notional profit.

The MEU also considers that a cause of the differential results in how the AER has used market data to inform on the imputation allowance to be included in the building block allowance.

If the AER accepted that the BEE is different to what is revealed as market data then the allowance for tax would be significantly reduced by increasing the value of "gamma".

Conclusions

The MEU is pleased that the AER has identified there is a need to investigate further why tax allowances have resulted in benefits transferring to the networks at the cost of consumers.

The MEU considers that the approach used by the AER to set the returns on equity and the cost of debt imply that the BEE is Australian owned and to maximise its financial efficiency, the BEE would have all its shareholders able to use imputation. The primary cause of the tax discrepancy identified for private firms is from the approach used by the AER to assess gamma. There would be a major reduction in the tax differential if the value for gamma was increased to (or near) unity as proposed by the CRG and Dr Lally.

The MEU notes a concern that the AER is using market data to develop its calculation of the tax allowance but has not recognised that the market data is not applicable to a firm which reflects the required character of the BEE.

The MEU considers there the simple explanation as to why government owned networks have incurred higher tax payments than allowed by the AER is that the networks make a higher profit than the AER forecasts, therefore making a higher NTER payment. The MEU notes that the privately owned networks would also pay a higher tax than the AER allowed for the same reason that the government owned networks do, yet the privately

owned networks have an ability to implement tax minimisation strategies that government owned firms do not.

Should the AER require additional explanation as to the concerns expressed herein, please contact the undersigned.

Yours sincerely

David Headberry
Public Officer