Australian Energy Regulator

NSW Electricity Distribution Revenue Reset

AER Draft Decision and revised proposals from Ausgrid, Endeavour Energy and Essential Energy

A response

by

The Energy Markets Reform Forum

February 2015

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The views expressed in this document do not necessarily reflect the views of the Consumer Advocacy Panel or the Australian Energy Market Commission.

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Executive Summary

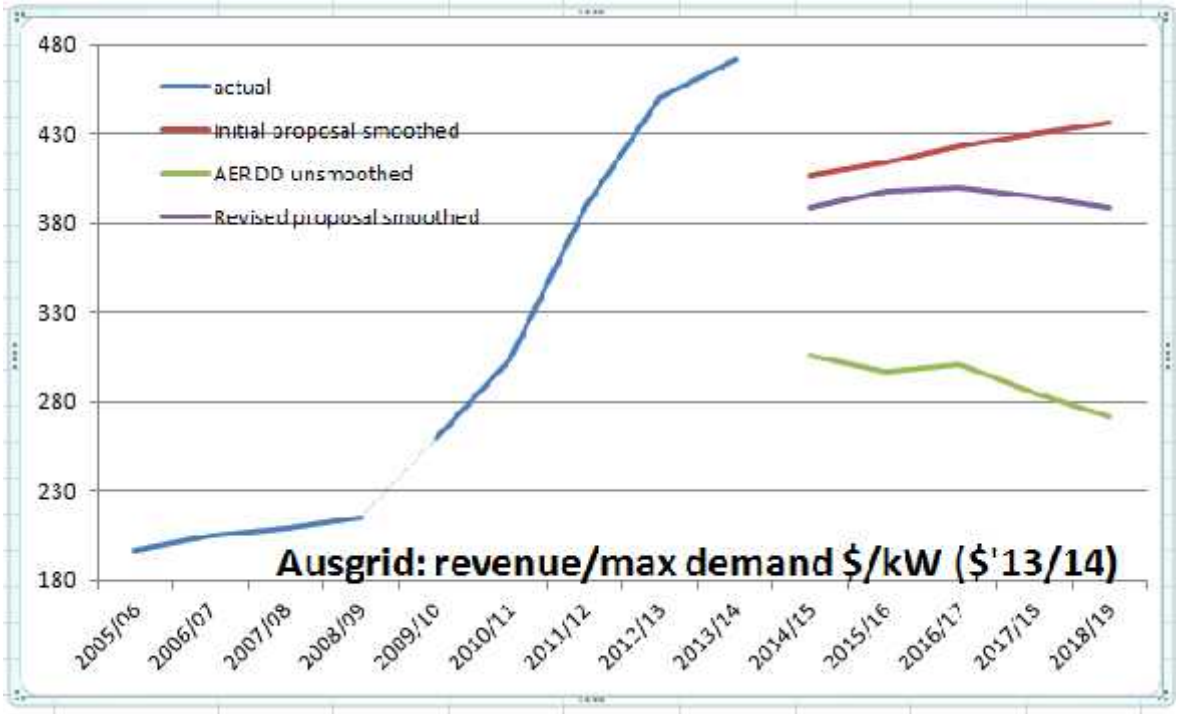
The Energy Markets Reform Forum (EMRF) welcomes the opportunity to present its views on the AER draft decision on the proposals from Ausgrid, Endeavour and Essential (the DBs) for a revenue reset, and the revised proposals provided by the DBs in response to the AER draft decisions.

The EMRF notes that the initial proposals from the DBs generally resulted in an increase in allowed revenue from the current levels whereas the AER draft decisions resulted in significant reductions in allowed revenues. The revised proposals from the DBs only marginally reduce the revenues sought and the bulk of the reductions come from using lower financial inputs into the development of the rates of return on capital (WACC). For some elements of the revised proposals, the DBs actually increase their revenue claims despite the views provided by the AER.

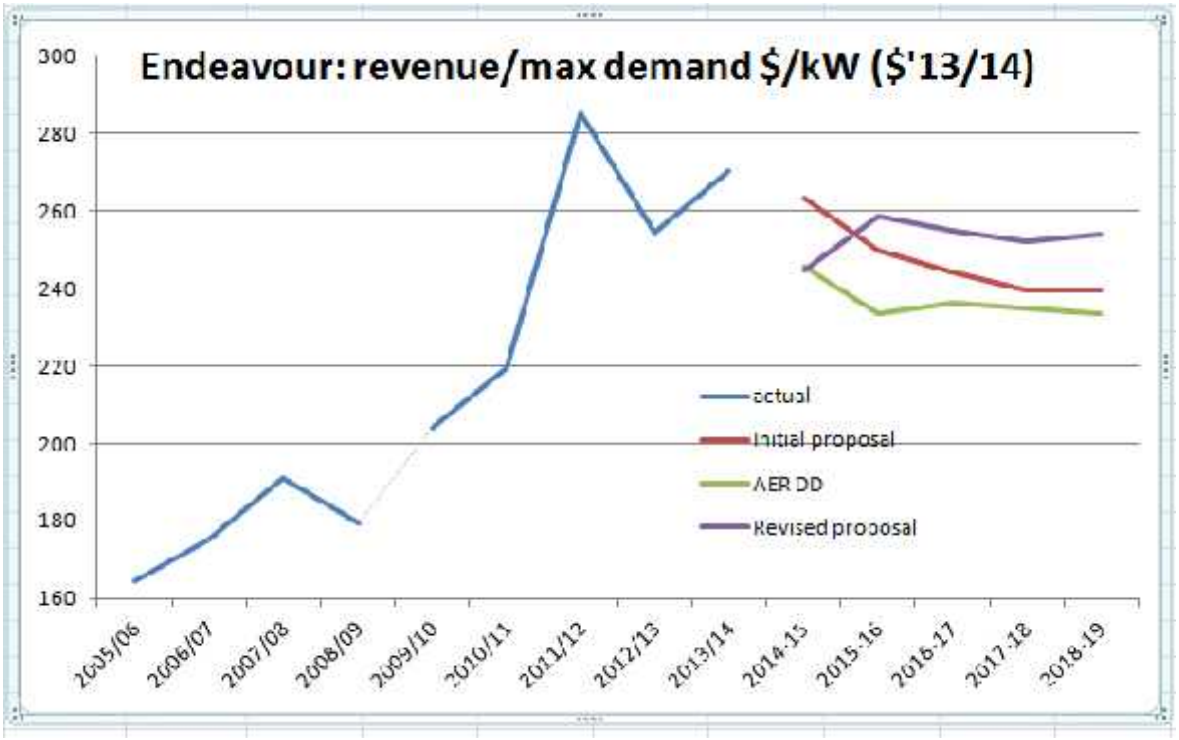
The EMRF considers that DB revenues should have fallen considerably from their current levels, not increase or remain the same, and considers that the AER assessed revenues achieve this consumer expectation. The EMRF notes that as demand is the main driver of a network's cost, when the DB revenues are assessed on the peak demands expected in the forecast period (AA4), then their costs per GW are increasing at a considerably faster rate than their revenue changes might imply.

The EMRF observed in its response to the initial proposals that on this comparative basis (ie $/kW), the revenues claimed by the DBs were significantly overstated. That the revised proposals are only marginally lower than the initial proposals, this effectively maintains a similar cost/kW to what occurs now and maintains the very high costs seen in the current period. There was widespread concern at the high costs in the current period exemplified by accusations of "gold plating" of the NSW distribution networks so this issue is not resolved by the revised proposals

The following three charts show how the costs/kW for the services provided by the three networks have risen over the past decade and how the initial and revised proposals and the AER draft decision match the historic cost structures. They highlight how the costs to consumers have risen, especially over the current period (2009-2014), and how the proposals effectively maintain the very high prices that caused the outrage at the cost of providing network services in NSW in recent years. In this regard it must be noted that this outrage resulted in major changes to the electricity rules to reverse the excessive trends seen. The AER draft decision based on these rule changes does indicate a reversal of the trend for ever increasing prices which the DBs have ignored.



Source: Initial and revised proposals application, benchmarking RINs, AER DD



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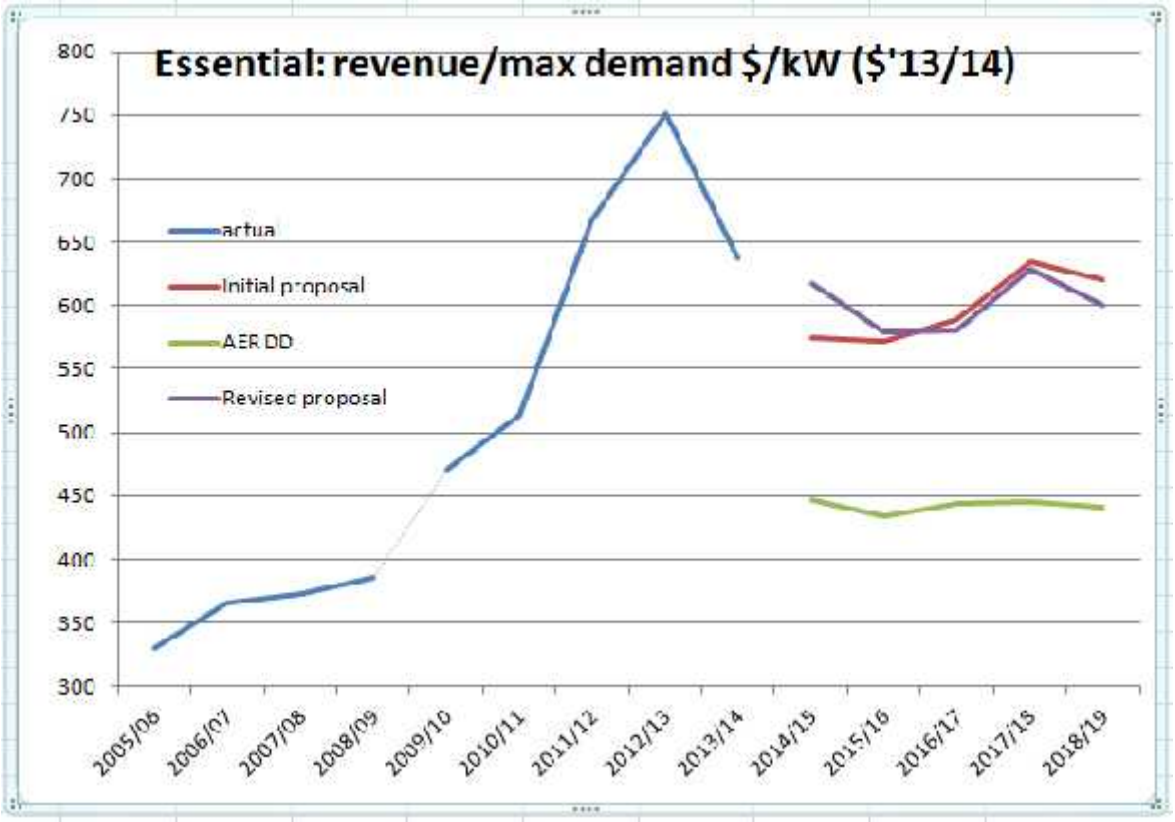


Source: Initial and revised proposals application, benchmarking RINs, AER DD

The EMRF has investigated the reasons why the DB proposals show such an increase when falling demand and consumption would imply a need for less revenue. In its assessment the EMRF noted that:

- The DBs grossly overstated their weighted average cost of capital and considered that the AER guideline on setting the rates of return on equity and debt are wrong. The AER approach applied the guideline as developed yet the DBs have all rejected the arguments provided by the AER in its draft decision and all three maintain that their approach (which delivers a considerably higher WACC) is what the rules require. The EMRF disagrees with the DBs and points out that the apparent adherence to the rules as interpreted by the DBs does not meet the requirements of the National Electricity Objective (NEO) or of the rate of return objective detailed in the rules

- The EMRF reviewed the DB claims for opex in their initial proposals and considered that the DBs have significantly overstated their requirements. That the DBs have effectively maintained their opex claims in their revised proposals highlights that they have ignored the very detailed analysis provided by the AER in its draft decision. What is most concerning is that

despite the DBs refuting the AER analysis on what is efficient opex, the DBs devoted considerable effort to "proving" the AER is in error in its analysis but failed to "prove" through independent external quantitative analysis how their bottom up assessment is more efficient than that assessed by the AER. What has also been overlooked by the DBs is that the AER utilized a number of different approaches to assessing what an efficient opex might be and all of the approaches delivered similar outcomes evidencing internal consistency from the different approaches. This internal consistency provides greater confidence that the AER assessment is more likely to be correct than the DB assertions that their single dimensional approach is more accurate.

- A most telling aspect of the assessment efficient opex is the observation of the CEO of Networks NSW Mr Vince Graham where he has stated that the DBs are "grossly inefficient" (see appendix 1). This highlights that the opex incentive program (EBSS) has not been as effective as implied by the DBs. If the EBSS is not effective in driving the DBs to the efficient frontier then the historic opex that the DBs use to argue their base year opex is efficient (and therefore their forecasts are efficient) is not supported.

- The DBs recognised that their needs for network augmentation had to reduce because of the falling demand and consumption of electricity in NSW yet they still sought significant levels of augmentation capex. Despite the assessments of the AER in its draft decision and the use of more up to date information, one DB maintained its augmentation capex was correct, another increased its augmentation capex. although the third did reduce its augmentation capex

- The reductions identified in augmentation capex were heavily offset by significant increases in replacement capex for which the DBs seek considerable increases compared to the levels of replacement capex considered adequate in the current and previous periods. The AER provided considerable analysis to highlight that the replacement capex claims were excessive yet the DBs effectively ignored this in their revised proposals. Responses to the AER draft decision resulted in mixed outcomes with one proposing a small reduction in replacement capex, one basically maintaining the initial proposal level and another increasing replacement capex. However, none of the revised proposals reflected the levels considered to be adequate in the AER draft decision.

- Overall, the AER draft decision is based on probably the most comprehensive analysis undertaken by an Australian economic regulator. What is just as important is that the AER has not relied on just one form of analysis to identify what is considered to be efficient. Rather, in contrast to

> the DBs which persisted in only using a single dimensional analytic approach, the AER used several different approaches to develop what it considered was an efficient level to construct its efficient allowances for the DBs. That these different approaches all led to similar outcomes gives great confidence that the AER analysis is more robust than the analysis provided by the DBs to build up their core cost elements. Of concern, is that the DBs devoted considerable effort to identifying flaws in the AER analysis rather than identifying externally derived analyses to prove the DB assessments are robust and efficient. The EMRF considers that the DBs have failed to provide sufficient independent evidence that the AER approaches are demonstrably wrong.

Neither of the DB proposals (initial and revised) deliver outcomes for consumers that were expected when considering the extensive regulatory work that has been carried out over the past few years to address the ever burgeoning costs for the provision of NSW electricity network services. The EMRF expected that the DB proposals would result in considerable reductions but what has been provided by them is "more of the same" that brought network services regulation into dispute since 2011.

It is clear that the DBs have failed to realize that the AER now has both the tools and resources to carry out much more in-depth analysis than they had with previous resets. Further, the new rules on how the AER has to undertake its responsibilities provide it with both a requirement to carry out much more comparative analysis than in the past and to develop a total allowance which addresses the very real concerns of consumers about the ever increasing costs of electricity network services in NSW.

1. Introduction

The Energy Markets Reform Forum (EMRF) is a group representing large energy consumers in NSW. The EMRF is an affiliate of the Major Energy Users Inc (MEU), which together comprise some 20 major energy using companies in NSW, NSW, SA, WA, NT, Tasmania and Queensland.

The EMRF welcomes the opportunity to provide comments on the draft decision made by the Australian Energy Regulator (AER) and the revised applications provided by Ausgrid, Endeavour Energy and Essential Energy submitted subsequent to the AER draft decision.

1.1 An overview of the DB's applications

In its response to the DB's proposals, the EMRF was critical of the DBs in that the DBs, despite asserting concerns about the cost pressures on consumers from network charges, they had not reduced their cost structures in order to address the concern that had expressed to them by consumers - that prices are too high. In fact, the DBs either had increased their proposed revenues or maintained them at current levels in relation to their:

- Weighted cost of capital proposal where they decided not to follow the AER guidelines
- Proposed opex where they sought an increase (or maintained their existing high cost structures in their allowances. The development of the proposed allowances did not really follow the AER guideline which is based on benchmarking, trend analysis and the revealed costs from their performance in previous years
- Despite there being little reason to augment the network due to demand falling, the capex proposed by the DBs does not reflect the large reductions that would be expected when there is declining demand and consumption and that the previous capex had installed considerable amounts of new equipment implying a lesser need for replacement capex.

To relate the increased revenue to the main driver of network costs (ie peak demand) the EMRF showed that the cost of the DB services would either increase or be maintained at the current very high levels running counter to the DB assertions that prices would remain relatively static.

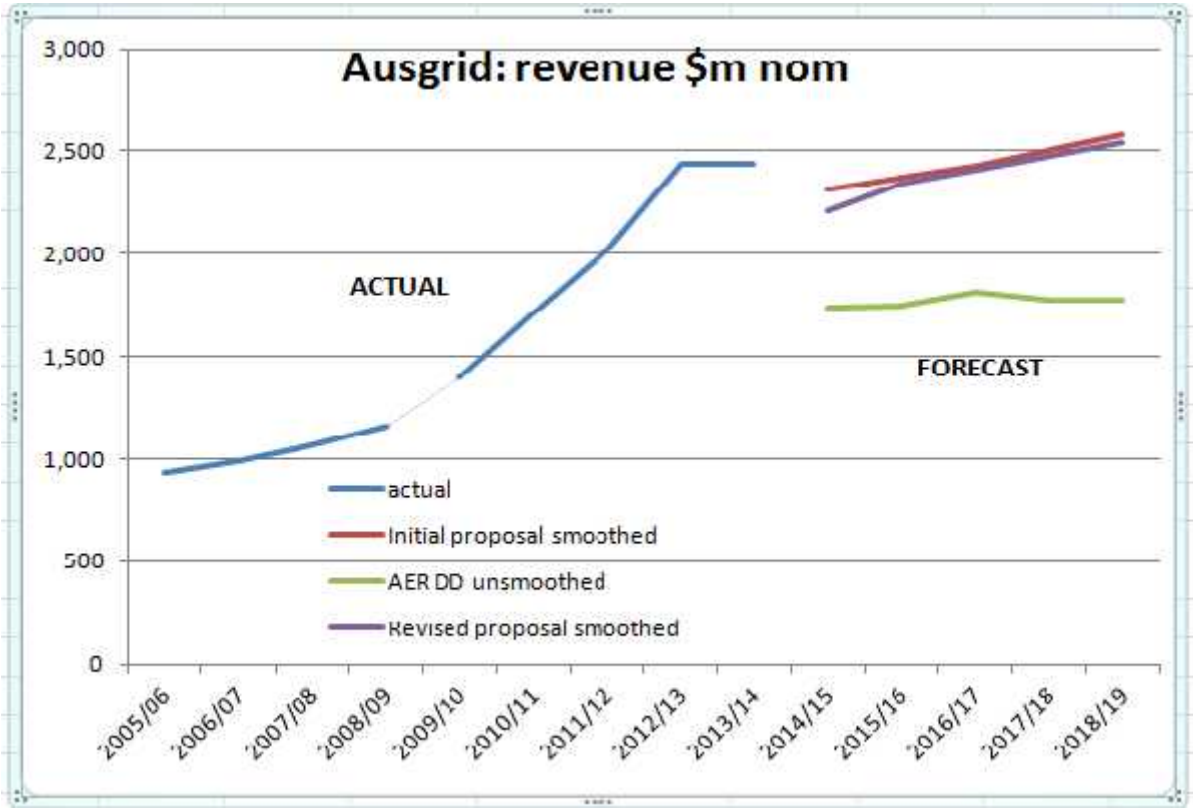
Overall, the EMRF considered that DBs had made an ambit claim against which the AER had to attempt to identify and remove costs that it considered were inefficient; the EMRF recommended that the AER review the proposal on the

basis that the cost rise in the current period (AA3) was demonstrably excessive.

1.2 An overview of the AER draft decision and the revised proposals

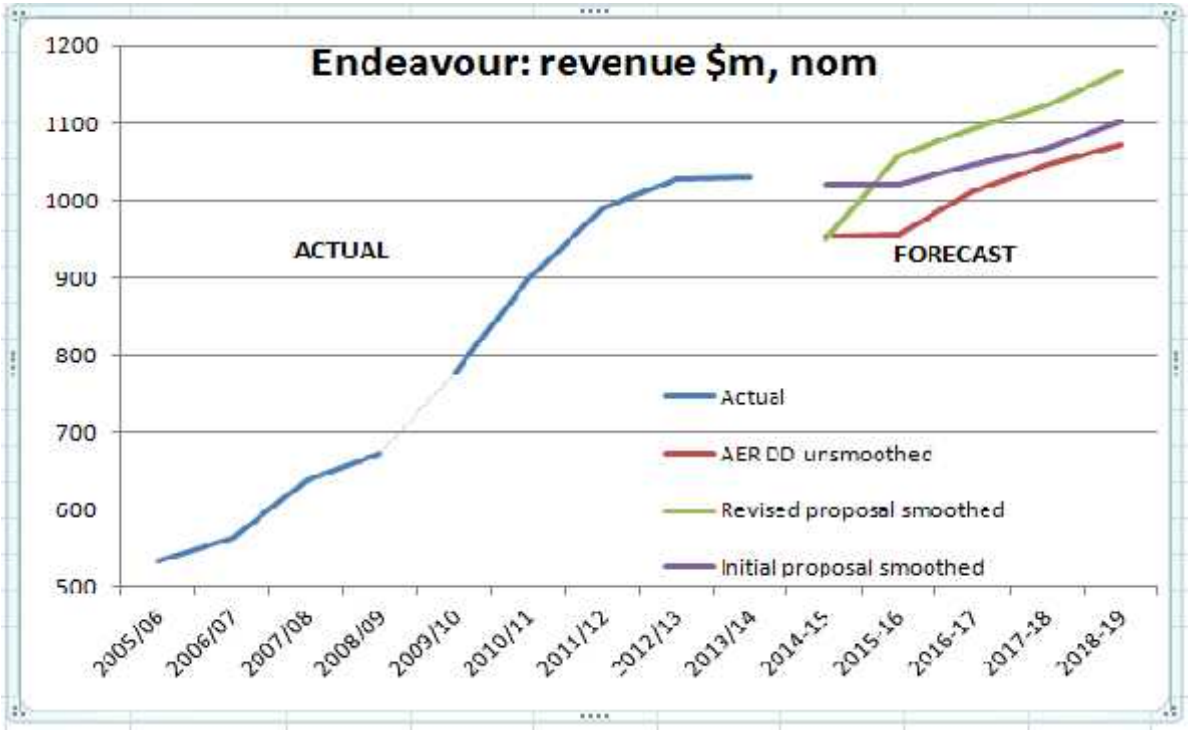
The EMRF has reviewed the AER draft decision and considers that, overall, the AER has identified and removed most of the DB inefficient costs that were included in their proposals.

The following charts show the actual revenues achieved by Ausgrid, Endeavour Energy and Essential Energy in previous years and that initially proposed by the DBs for the next period and their revised proposals. The charts also include the AER draft decision allowed revenues which reflect actual revenues required in the early years of the current period[1].



Source: Initial and revised proposals application, benchmarking RINs, AER DD

[1] The EMRF uses smoothed revenues for the DB revenues but unsmoothed for the AER draft decisions as this removes the distortion introduced to the relativities caused from the AER over compensating the DBs allowed revenues for the transition 2014/15 year



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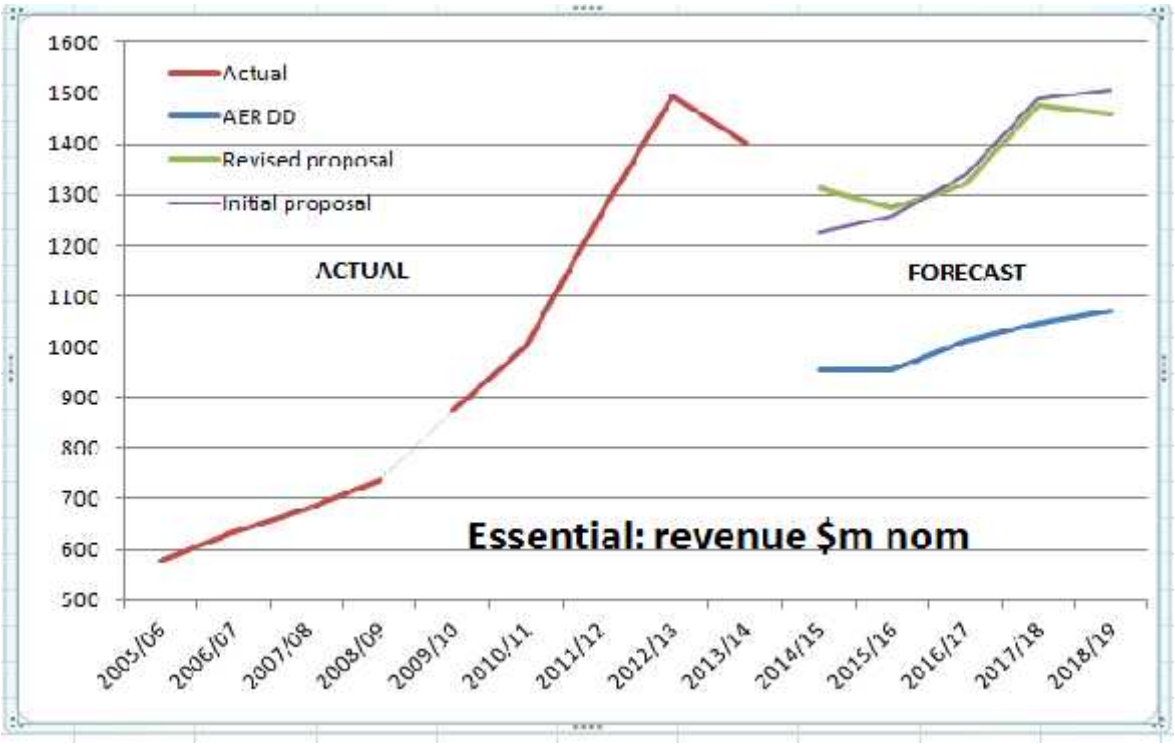


Source: Initial and revised proposals application, benchmarking RINs, AER DD

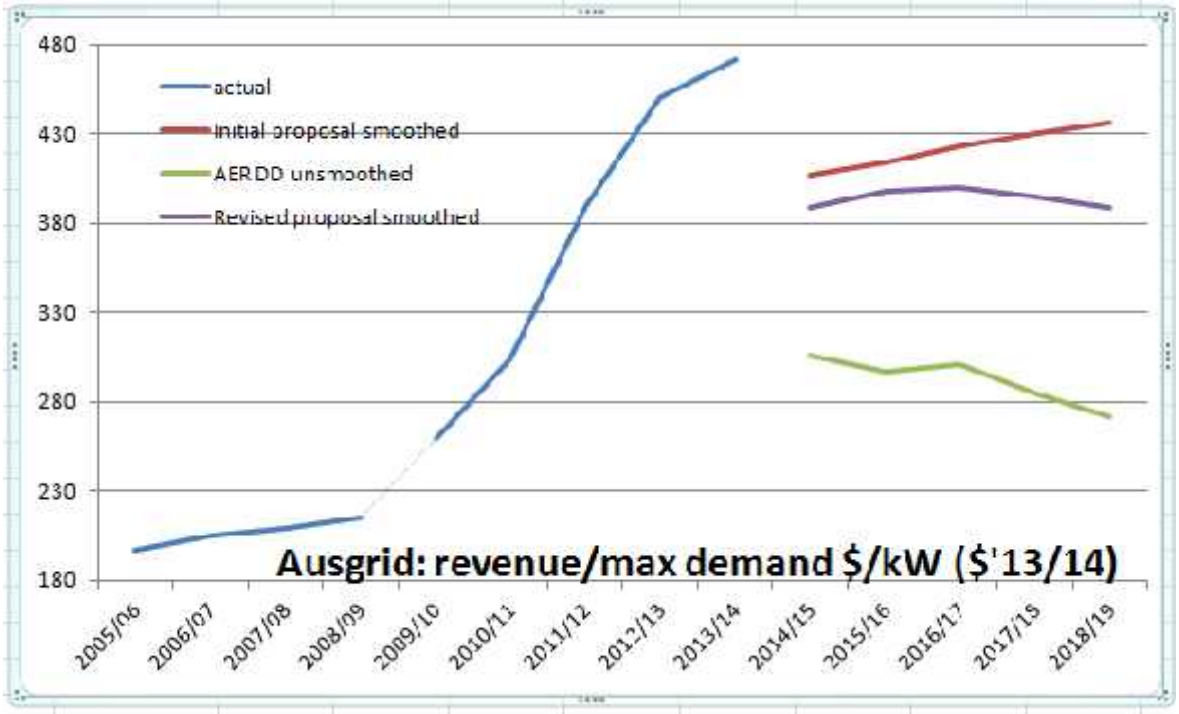
What can be seen clearly is that the AER draft decision resulted in a considerable reduction to the allowed revenues with Essential allowed revenue returning to that applying at the start of the current period and Endeavour's allowed revenue showing a relatively small reduction from current levels; Ausgrid's allowed revenue reflects the revenues achieved in the middle of the current period.

However, the outstanding feature that these charts show is that in all cases, the revised proposal revenues either match those sought initially or exceed the revenues initially sought. This is a clear indication that none of the DBs considered that the AER draft decision reflected an outcome that the DBs were prepared to accept as being efficient. Effectively, the outcomes from the revised proposals are that the AER draft decisions have been ignored when seen at a high level. Deeper investigation shows that some aspects of the AER draft decisions have been accepted whilst others have been revised as the initial proposals were seen to be insufficient.

This latter issue is quite concerning as it implies that after many months of assessment made for the initial proposals, the DBs have found that after the short period between the release of the draft decision and the submission of the revised proposals their in-depth initial investigation has proved to be inaccurate and only a short time was required to recognise even more funds were required for some activities. The EMRF considers that it is clear the DBs have used the draft decisions as a basis for increasing their ambit claims.

Recognising that revenues of themselves do not provide a useful indication of the value of the service provided to consumers, the EMRF has plotted the revenues related to the peak demands seen in each of the DB networks because peak demand is the main driver for the size of the network that needs to be provided.

Based on the revenues shown in the foregoing charts, the EMRF has prepared charts showing the changes in the prices to consumers for the services provided in terms of $/kW and plotted these in constant dollar terms over time. This also reflects the impacts of the change in peak demands seen over time (especially in recent years) and therefore this relates the impacts of the increased revenues sought despite falling demands.



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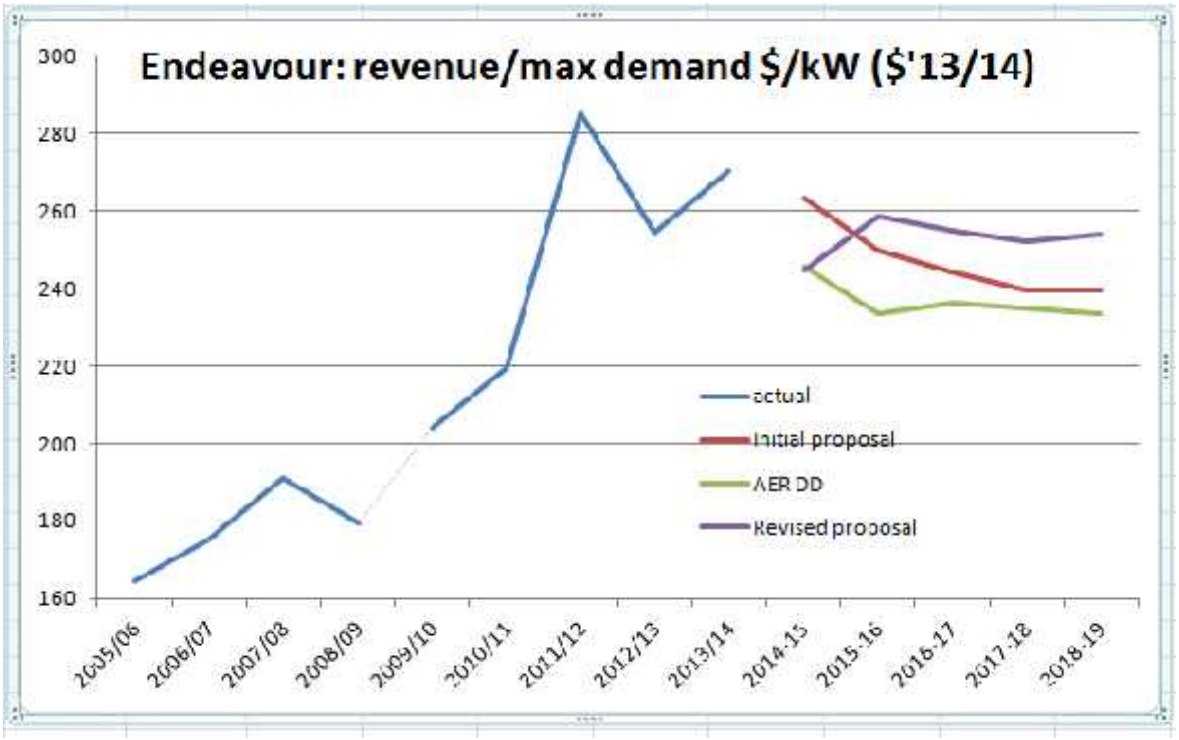

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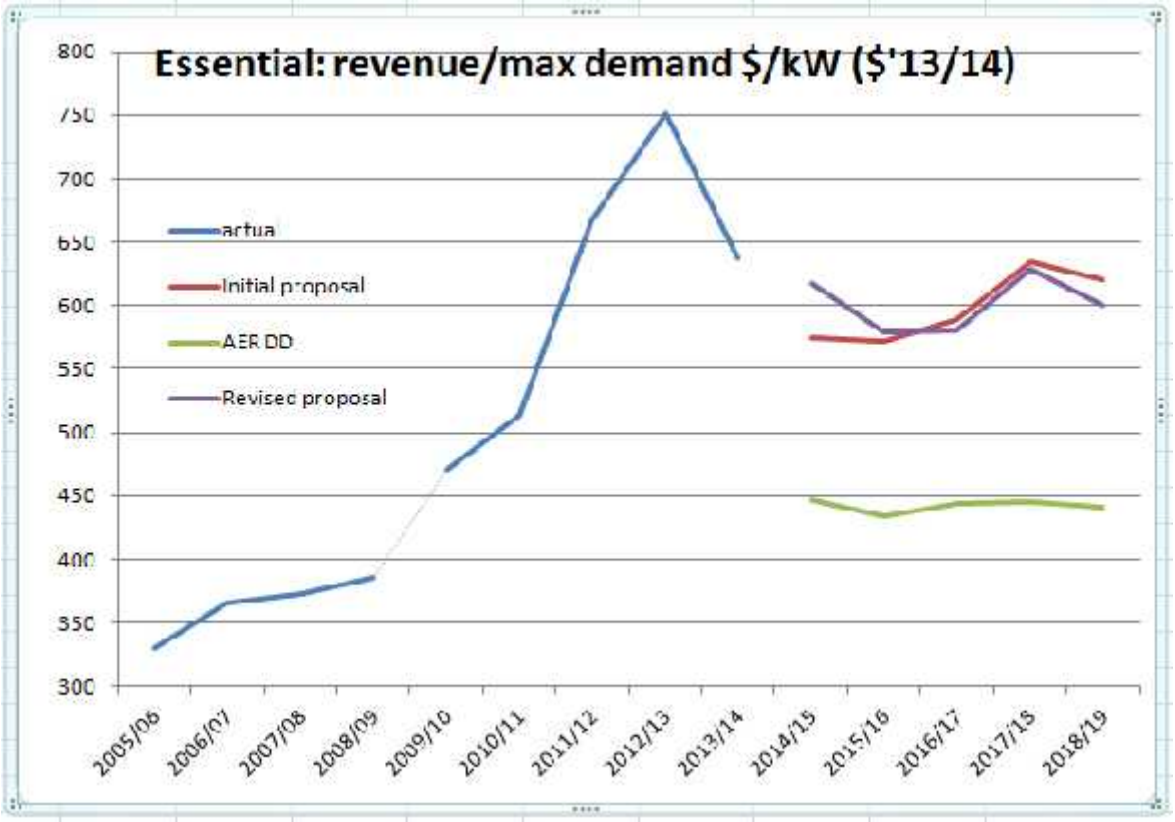

Source: Initial and revised proposals application, benchmarking RINs, AER DD

Whilst there is some correlation between the revenues and the resultant prices, what the charts show is that the current period exhibits a massive rise in the prices of the services provided over the five year period (nearly doubling in price). The AER draft decision does result in prices showing more consistency between prices charged between the different DBs whereas the prices sought by the DBs show a considerable variation.

What is also striking is that the DB with the lowest prices (Endeavour) also exhibits the closest relationship between the initial and revised proposals and the prices that result from the AER draft decision. This high level assessment supports the view from the AER benchmarking that both Ausgrid and Essential would appear to be amongst the least efficient of the DBs operating in the NEM and that they need to address this inefficiency as a matter of urgency.

This high level analysis would support a view that the AER draft decision is consistent with a recognition of high peak demands seen in the early years of the

current period[2], and that AEMO has forecast that these early year peak demands are unlikely to be exceeded (even at 10%PoE) for a decade or more to come.

What is disappointing from a consumer viewpoint is that the massive step increases in prices seen as a result of the current period allowed revenues combined with falling or static demand has effectively been "locked in" even when considering the significant reductions in revenues seen in the AER draft decisions.

In its response to the DB proposals, the EMRF commented

> "It is clear that the DBs, despite their protestations about seeking to constrain costs see this revenue reset process as an opportunity to maximise their rewards as monopoly service providers."

The AER draft decisions have gone well on the way to redressing the EMRF concerns but even the draft decisions result in significant step increases in prices from those seen in period previous to the current period (ie AA2) and as the EMRF commented in its response to the DB proposals

> "… an increase in selling prices of about 100% in a five year period between AA2 and AA4 could not be sustained by any competitive business in an environment of falling consumption."

Even with the increases allowed by the AER draft decision, the EMRF considers that its observation is still valid.

Despite the AER draft decision, the DBs have essentially maintained (or increased) the revenues they initially sought despite the clearly identified reasons provided by the AER that there should be reductions.

Overall, the resultant unit costs for supply of their services based on their revised proposals still maintains their extraordinarily high pricing. This indicates that the DB revised revenues are still excessive.

1.3 The conservatism built into the AER draft decision

[2] The peak demand in NSW occurred during the first three days of February 2011 and this has not been repeated

The EMRF notes that the AER draft decision deeply analyzes the DB proposals and identifies many aspects where the DB proposals are deficient in identifying what are efficient costs compared to costs that the DBs think that they might incur.

What is concerning to the EMRF is that the AER has a tendency to be conservative (ie biased towards the DB interests) when there might be some doubt. Whilst the EMRF does not disagree that the AER needs to be conservative, the EMRF is concerned that consistently this conservatism is additive. This means that the overall conservatism that has been applied is significant but is unquantified.

This conservatism operates in two clear ways:

- When a series of unrelated conservative allowances are made, statistically not all elements will be result in the extreme condition that justifies the conservatism allowed but some elements will. To address this additive conservatism, the AER should make an assessment as to which elements are most likely to approach the higher likelihood of being at the extreme of any likely range. Then the AER should apply the conservatism only to that element and hold all other elements at their most likely operating point. This approach recognises that there will be a spread of likely outcomes rather than all outcomes being assumed to be at the extreme point of a likely range.

- When there are a series of elements that build on each other and a conservative approach is taken for each, the overall conservatism builds up geometrically. So if two elements are multiplied and both have a conservative aspect, then the overall conservatism is enhanced. An example of this is the equity risk premium where the equity beta and market risk premium are multiplied to create the equity risk premium. If there is conservatism applied to both inputs then the outcome is more conservative than either of the two inputs. For example, if there is a 10% conservatism built into both the equity beta and the market risk premium, the equity risk premium will have built into it a 21% conservatism allowance which is twice the conservatism allowed for either.

The EMRF has identified a number of conservative allowances that have been built into the final revenue allowance and these are detailed within the body of this submission. However, some of the more obvious elements where the AER has provided conservatism are:

- Setting of equity beta
- Setting of market risk premium

- Assuming all debt will be provided from corporate bonds
- Not recognising that networks have a lower cost of corporate bond than other seekers of debt with the same credit rating
- Setting gamma in a lower end of the likely bounds
- Using an average of the performances of the more efficient DBs to set the efficient level rather than use a value at the efficient frontier
- Allowing a productivity adjustment lower than indicated to allow for a lesser cost of step changes
- Providing excess opex and capex in the regulatory allowance when its inclusion will result in out-performance in service (an hence a bonus under the STPIS)

The EMRF considers that the AER should have used the midpoint of any range of point estimates where there might be doubt and then applied an overall level of conservatism to the final assessment of the revenue allowed.

1.4 Consumer engagement

The EMRF considers that the AER assessment of the DB's consumer engagement carried out so far is a reflective of what the EMRF members have seen.

It is clear from the detail provided in the AER assessments for each of the various elements that comprise the draft decision, that the AER has relied little on the DB assertions regarding the outcomes of the DB consumer engagements to influence this revenue reset process.

The EMRF notes that the DBs disagree with the AER on what should be taken out of the consumer engagement process, but the EMRF is firmly of the view that the consumer engagement processes carried out by the DBs so far is still very much at the inform stage.

In their revised proposals, the DBs highlight that the AER Consumer Challenge Panel has provided the AER with its views that great care is required in drawing conclusions from consumer engagement at this early stage in the CE development process in the National Electricity Market. For example Ausgrid comments in its revised proposal that the Consumer Challenge Panel (CCP) member views are flawed and based on anecdotal evidence whereas Ausgrid asserts (page 39):

> "We cannot find credible evidence in the AER's Draft Determination or submissions to our regulatory proposal to challenge these key findings of our consumer engagement. In particular, there has been no research conducted across our customer base to support the view that most customers would accept

> lower reliability or service standards as a trade-off for price reductions as stated in the AER's Draft Determination. This includes customers' willingness to accept compensation payments for longer or more frequent power outages.
>
> We do not accept that it is reasonable for the AER to use anecdotal evidence put forward by the Consumer Challenge Panel as a foundation for its decisions."

Advisers to EMRF have attended workshops, forums and focus groups and completed surveys similar to those carried out by Ausgrid as part of their CE. These advisers comment that the general understanding by consumers of electricity network operations and its regulation is very low and the amount of time needed to provide even a modest understanding uses up most of the time available for the workshop, forum or focus group meeting. Similarly the amount of information and ability of survey recipients to appreciate the nuances of what is explained is quite constrained. With this in mind, the EMRF has very little faith in the conclusions drawn by Ausgrid (indeed any DB) from its CE with regard to willingness to pay.

One particular issue that the EMRF advisers comment on is that regarding the observations on price impacts of a particular issue. During focus group discussions, there have been discussions on price impacts and usually, the price impact discussed was of a relatively modest amount (eg the same as the cost of a cup of coffee or two!). What was not done was to highlight:

- The extent of the work similar to that seen as extra that the network is already allowed to charge for (eg the allowance for tree trimming is already $X per tree but to provide the more detailed trimming program will be $X+
- How charges have increased over time (eg in 2005 the network was allowed $Y per tree but in 2010 it was allowed $Y+ and yet in 2015 it wants even more.
- Whether the increase was a "one off" (ie for just one year) or to apply for every future year
- Whether the price increase was additive (ie an extra increase every year) where the cost in year 1 is (say $5) but in year 2 it would be $10, and in year 3 $15 and so on
- The additive effect of all of the proposed price increases ie that with all of the extras the consumers appeared to have accepted, the total network charges will increase by Z%.

The above highlights, again, the manner in which the DBs massage their pricing message to the consumers engaged within the CE to their advantage. This is unacceptable, and it could be alleged that the DBs designed their CE program to justify their own interests.

Due to the lack of clear comparative information being provided as part of DB consumer engagement, the EMRF has reached a view that the current level of consumer engagement undertaken is still very much at the early stages and almost entirely at the "inform" stage identified by the IAP2 spectrum.

The EMRF is also aware that the AER Consumer Challenge Panel (CCP) has recently advised that, in its view, in consumer engagement activities by networks[3]:

- "Cost and price implications are not adequately being conveyed;
- The methodologies of the majority of willingness to pay survey are inappropriate;
- Measurement indicators are seriously lacking;
- Inadequate attention is being paid to thorough stakeholder mapping and recruitment;
- Network service providers (NSPs) are to be encouraged to work towards creating an environment for in depth discussions with consumers; and
- It is inappropriate for NSPs to claim increased revenues or continued high revenue allowances based on the current consumer engagement outcomes."

Amongst its recommendation on consumer engagement, the CCP observes[4] that the AER:

- "considers the extent to which consumers are provided information about cost and price implications of any preferences that consumers express;
- rejects the use of WTP information that is used, in and of itself, to support particular activities of network businesses;
- critically assesses the methodologies used in willingness to pay survey work;
- encourages network businesses to develop consumer engagement KPIs;
- considers the cost and benefits of consumer engagement activity in a given determination process;
- seeks information from NSPs regarding their processes for identifying stakeholders;
- encourages NSPs to work towards allowing in depth discussions with consumers; and
- rejects claims by NSPs for increased revenues or continued high revenue allowances on the current consumer engagement outcomes."

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[3] CCP letter to AER dated 30 October 2014 page 1
[4] Ibid page 3

With this in mind, the EMRF is aware that clear comparative information must be provided to consumers to move beyond the "inform" and "consult" stages of the IAP2 spectrum to the involve stage if the CE is to be used as part of a reset proposal. One of the most concerning features of the conclusions drawn by Ausgrid and the other DBs with regards to willingness to pay, is that there has been no comparative assessments made over time.

For example, in the willingness to pay assessments, were Ausgrid consumers provided with a view that in 2006 they paid just over $180/kW ($'14) for the reliability of their supply, yet by 2014 (only 8 years later) they are paying nearly $480/kW ($'14) for the same level of reliability? That effectively they have paid $300/kW more (real) just to maintain the same level of reliability[5] in just 8 years?

The EMRF is concerned that without this degree of information being provided, it is almost impossible to draw conclusions that consumers have a willingness to pay more. This observation is consistent with the clearly expressed view made over the past 3-5 years that consumers consider they are paying too much for the electricity supplies and have made this view known to both state and federal governments. This view led to rule changes to redress this burgeoning of costs to consumers.

A feature of the CE that has been carried out by the various DBs is an assertion that consumers do not want lower reliability even with a price reduction. What is missing from this line of questioning is what level of reliability reduction would occur for what price reduction. For a consumer to make an informed decision on such a line of questioning requires a better understanding of what loss of reliability would occur for what lesser cost[6]. As it stands, the DBs should not make assertions about this aspect of consumer desires when the consumer was not provided with all of the relevant information.

While accepting that the consumer engagement program implemented by the DBs is better than what has done in the past, the EMRF considers that the amount of time needed to explain what the networks do, and how costs are derived, would have absorbed much of the time provided for each of the CE activities. This observation is supported by direct involvement in CE processes in a number of jurisdictions. Even if the full amount of time available was dedicated to assessing substantive issues, the experience of members of the EMRF and its affiliates is

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[5] For example, most residential consumers do not know what they pay for network services or what these services comprise. How then can they make an informed decision on whether they receive value for the money they pay for the service they get?

[6] The EMRF is of the view that considerable cost reductions could occur with no loss of reliability but the DB questioning does not address this quite fundamental aspect. This is obvious from the AER benchmarking activities

that what CE has been done to date is well short of the time needed to fully understand what electricity networks do, the costs they charge for, the service they provide and whether consumers are getting value for money.

The EMRF considers that the DBs have made a start in their CE and, at a high level, the processes put in place should provide them with better information about what consumers want than they had at previous resets. However, the outcomes of the CE work to date is not sufficiently researched and corroborated for the DBs to use the information to inform the current reset review to the extent that they have taken.

1.5 Shared assets

The EMRF notes that the DBs do provide services to others using the assets fully paid for by consumers and therefore consumers should receive a benefit for this additional use. The EMRF also notes that the amount of revenue the DBs assert they receive in this manner was less than the level of materiality applied under the AER guideline.

It would appear that the amount of the shared asset revenue is still below the materiality level despite the AER proposed reduction in allowed revenue that is included in the draft decision.

The EMRF remains concerned that the materiality level included in the AER guideline is inappropriate and will take this up with the AER at a later time.

1.6 Interplay between incentive schemes

As noted in its response to the DB proposals, the EMRF recognises the importance of the incentive schemes for opex, capex and service standards and agrees that now there are a suite of competing incentives covering the three elements a better outcome for consumers should result.

The EMRF added that the complementary nature of the schemes will only be achieved if the allowances for opex and capex particularly are set at the efficient frontier, although the EMRF also notes that if the WACC allowed exceeds the cost of sourcing funds, this will incentivise excess capex.

Whilst the EMRF considers that the draft decisions have gone a long way towards setting opex and capex at efficient levels, the EMRF has a concern that the approach used by the AER still results in a significant degree of conservatism - this point is made in section 1.5 above.

If there is conservatism included in the allowances this will reduce the effectiveness of the balanced nature of the incentives. In particular, the EMRF is concerned that any excess allowed in the opex and capex will provide an NSP to optimize where it takes its bonus - in the EBSS, the CESS or the STPIS.

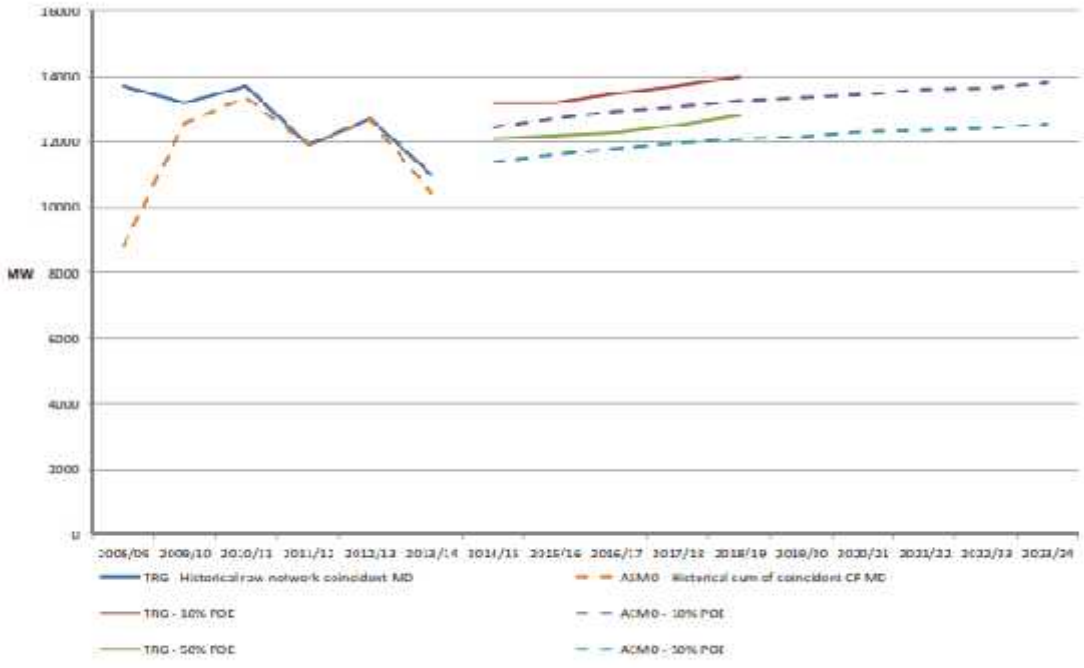
2. Forecasts of demand, consumption and input cost changes

2.1 An overview of electricity (demand and consumption) forecast changes

In its response the DB proposals, the EMRF commented that the forecast demand for NSW over the regulatory period would not exceed the previously observed highest demand in the region. On this basis, the EMRF concluded that there was little rationale for any augmentation capex for the next period.

The EMRF notes the AER has used the 2014 AEMO Connection Point (CP) demand forecast for NSW to assess the need for TransGrid (TG) augmentation capex. The AER comparison between the AEMO forecast and the TG forecast (AER figure C-1 on page 6-68 in attachment 6) shows that TG has over forecast future demand whereas the AEMO CP forecast still shows that expected peak demand in the nest period is still less than the actual peaks incurred in the past.

Figure C-1 Comparison of TransGrid demand and AEMO CP demand



Source: TransGrid reset RIN; AEMO, *Dynamic interface for connection points in New South Wales and Tasmania*, 31 July 2014.

The EMRF notes peak demand recorded in NSW was 14.58 GW on 1 February 2011 and the AEMO CP forecast assessed at 10%PoE does not indicate that this demand will be exceeded within the next decade.

With this in mind, it would appear that there would be little need to augment the DB networks during the next period. The EMRF notes that the AER has required each DB to update its spatial demand forecasts. This resulted in a need to reduce the initially advised demand forecasts with resultant reductions in augmentation capex. The EMRF remains concerned that the forecasts for demand still overstate the need for augmentation but the EMRF has no better information available to it other than the region wide independent forecasts developed by AEMO.

The EMRF has previously highlighted that networks have consistently had a bias towards overstating expected peak demand (in order to maximise their capex allowance) and underestimating expected volumes of electricity to be used (in order to maximise prices when under a price cap regime). The EMRF notes with particular pleasure the AER decision to

> "…monitor the accuracy of [the DB's] demand forecasts in future regulatory years to check for any indications of bias. This in turn would aid in monitoring potentially inefficient expenditure levels in the network." (AER DD on Essential page 6-90)

2.2 Escalation forecasts for labour and materials

2.2.1 Wages cost growth

The AER decision on wages cost growth generally reflects the view of the EMRF although there are some elements where the EMRF does not agree with the AER approach.

However, what the AER has done is to develop a suite of tools which when combined provide a comprehensive and well developed outcome to adjust opex for forecast changes in prices, productivity and output growth.

A particular item that the EMRF raises in regard to the wages cost growth relates to the wages price adjustment for 2013/14. The EMRF notes that the table B-6 on page 7- 147 of attachment 7 for Essential both DAE and BIS-Shrapnel forecast a real growth in wages for 2013/14 whereas the ABS statistics for 2013/14 show that real growth was negligible. In determining the forecast allowances, actual figures should be used rather than estimates.

Whilst accepting the current approach to forecasting outputs for use in output growth has been the focus of considerable debate throughout the Better Regulation program, the EMRF has a major concern with the

weightings used for the output change measures as there is no explanation provided as to why customers numbers have such a high weighting compared to (say) circuit length. The EMRF is also concerned that there is some commonality between the output measures such as increased customer numbers would also increase ratcheted maximum demand and circuit length. The EMRF will request its affiliate MEU to take up with the AER why the weighting for these outputs should be used to adjust opex, particularly with such high proportions.

2.2.2 Materials cost growth

The AER has provided a very important and detailed analysis on the issue of materials future price movements. By comparing the forecasts of future materials prices from a range of forecasters, it has identified that the range of forecasts is just too wide to place reliability on the forecasts.

The EMRF notes that although futures prices are used as the basis for such forecasts yet it is well known that the further out from the current times, the volume of contracts setting the futures price decreases dramatically. So even though prices might be forecast well into the future, the longer out the forecast, the less it is based on as wide a cross section of buyers as might be imagined.

The issue of the volatility and unexpected nature of material forecasts is probably most exemplified in recent times, where the spot price for oil, coal and iron ore have seen massive falls in very short time frames. Who, six months ago would have predicted that the spot price of oil would have fallen by over 50% by the start of 2015?

The EMRF notes the AER has concluded that spot prices for raw materials (which are used for materials escalation purposes) are also unlikely to be a good guide for future material purchase costs because:

- The actual cost of the raw material is unlikely to be "at spot" as most trading is carried out on longer term contracts rather than buying "at spot"
- Networks purchase processed materials (eg aluminium made into cables, copper and steel made into transformers and switchgear) which means that there is a considerable labour component included in the actual items procured.

The EMRF considers that the AER has highlighted some considerable shortcomings in the approach to forecasting the cost escalation of the

materials used by networks.

The EMRF accepts that the AER has concluded the DB proposals for adjusting materials prices into the future is not sufficiently robust for it to be used for regulatory purposes and that allowing materials prices to increase at the same rate as the Australian CPI is a more appropriate approach to adjusting for material price movements. In principle, the EMRF agrees with the AER approach as the long term basis for future movements in the cost of materials

However, it is important to note that following this approach is, at this time when materials costs are falling so dramatically, an extremely conservative approach and therefore is likely to provide the networks with a short term benefit at the expense of consumers.

The MEU considers that forecasting error can be avoided and addresses this in section 2.2.4 below.

2.2.3 Property escalation

The EMRF notes that effectively the AER draft decision allows for property growth escalation to be adjusted in line with movements of the CPI.

The EMRF considers that this is an appropriate approach.

2.2.4 Labour and material forecasting inaccuracies

The EMRF notes that despite making a suggestion the AER consider developing an industry specific adjustment to escalation of costs, the AER has persisted with applying CPI adjustments to network revenue. The reason the EMRF proposed an industry specific escalator was to address the inaccuracies inherent in the current approaches used by networks and the AER - aspects that the AER refers to extensively in its assessment of wages and material cost adjustments.

The reason previously given by the AER for not implementing a specific industry escalation factor was because of a preference that network prices should increase with CPI as this was what consumers would want. The EMRF considers that an industry specific escalator would remove all of the risk to both consumers and networks and remove the conservatism that is apparent in the current approach used by the AER

However, now that there is to be a variation each year to adjust for changes in the cost of debt, the AER argument is no longer valid. The EMRF intends

to ask its affiliate MEU to take up this issue with the AER at a future point in time.

3. The DB WACC

In its draft decisions on the three NSW DBs, the AER has applied its WACC guideline as developed during the Better Regulation program. This results in a considerably lower value for WACC than was seen from the DB applications.

In their revised proposals, the DBs essentially maintained the same views that they had espoused in their initial proposals with the only adjustment made regarding the lower risk free rate that currently applies.

The EMRF considers that the DBs, by rejecting the key elements of the AER guideline and draft decision, are pursuing an agenda to unnecessarily maximise their revenue streams to the detriment of consumers.

The arguments about WACC provided by the DBs all revolve around them gaining more revenue, yet this is not what the National Electricity Objective (NEO) or of the Rate of Return Objective require.

- The NEO is about the long term interests of consumers. Whilst the DBs argue that the AER is incorrect in its guideline, the DBs have not demonstrated that the AER guideline is not in the long term interests of consumers. At a high level, the AER guideline bears much commonality to the development of the WACC seen over the past 15 years, even though this approach has resulted in adequate (some would say excessive) investment in networks. It is therefore incumbent on the DBs to provide evidence as to where the AER guideline would result in less investment than has been needed in networks

- The rate of return objective requires the AER to grant an allowance that recovers at least the efficient costs for the capital needed by the benchmark network. Again, history shows that the allowances provided in past determinations have delivered this outcome. The DBs need to provide evidence that the AER guideline is so different from previous decisions that efficient costs will not be recovered. What the DBs have provided so far is that their approach would give them higher returns, not that these return efficientcosts.

The EMRF is of the view that the AER guideline is not so different from the previous regulatory approaches used or that the guideline is demonstrably deficient; in fact the EMRF considers the AER guideline removes risks to the networks rather than adds them. The DBs have focused on attempting to prove that their preferred approach meets the requirements of the Rules

more so than the AER approach and, by doing so, have concentrated on showing they are entitled to a higher return than that they would get from the AER guideline. What is totally absent from the DB arguments, is any evidence that the AER draft decision does not deliver an outcome which is efficient, meets the NEO and the rate of return objective. The EMRF considers that the empirical evidence from history supports the AER guideline as being more efficient[7] than the approach strongly put by the DBs because there has not been a dearth of investment that an inefficiently low outcome would cause.

3.1 The AER draft decision

The AER has devoted considerable effort into identifying an appropriate process to develop a weighted cost of capital (WACC) that meets the requirements of the Rules and the intent of the Law. The bulk of the work was undertaken during the Better Regulation program which balanced the views of both the networks and of consumers whilst ensuring the requirements of the Rules were implemented. As the EMRF commented in its response to the DB initial proposals,

> "…the EMRF supports using the [AER rate of return] guideline in its entirety rather than "cherry picking" aspects which favour one stakeholder over another."

Except for the AER draft decision on the value of "gamma", the AER has maintained the integrity of its guideline by applying it in full to this draft decision. The AER goes to considerable lengths to demonstrate that its guideline and the current assessments of point estimates remain as valid now as they did in the buildup of the guideline where all stakeholders had considerable opportunity to provide their disparate views and where the AER devoted considerable effort to balance these as it settled on a suite of outcomes the constitutes the guideline as published.

Despite the EMRF accepting that as the rate of return guideline must be seen in its entirety and not being "cherry picked" for elements which favour one stakeholder over another, the EMRF does highlight that there are elements of the guideline which are biased in favour of the network.

In particular, in reviewing the detailed explanations by the AER for its draft

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[7] An efficient outcome would be where there is just enough investment to deliver the services at the required performance and no more.

decision, the EMRF notes that there are aspects where the AER has taken a conservative view on the parameters used to determine the final "point estimates" that are inherent in the guideline.

3.1.1 Gearing and credit rating.

The AER determined that the benchmark entity would be geared at 60% debt with a credit rating of BBB+.

As the level of gearing is also closely related to the benchmark credit rating, the EMRF considers that both parameters should be set in relation to the other. Analysis of the actual gearing of energy networks and the credit ratings achieved indicates that the AER has taken a conservative view in relation to both. Table 3-35 in the draft decision attachment 3 shows that the average gearing of the networks examined was between 63% and 66% after excluding the impact of AGL, Alinta and GasNet in the assessments[8].

In table 3-61 in the same attachment, the AER provides a listing of network service providers (each with their credit ratings) and from this concludes that the typical credit rating would be BBB+ for the cohort of firms included and from this the AER concludes that the benchmark credit rating would be BBB+.

What is absent from the analysis is any correlation assessment of the gearing and credit rating. For example, Envestra is shown to have a credit rating ranging from BBB- to BBB+ yet the reasons for this variation can be seen when its gearing is assessed. In fact, Envestra had a gearing in excess of 80% and yet still had a credit rating of BBB+, yet Envestra contributes to the setting of the benchmark.

The table also does not differentiate between regulated and unregulated networks. For example, the networks closer to pure play networks (eg ETSA, CitiPower, Powercor, AusNet) all have credit ratings higher than BBB+ and APA which has about half of its assets unregulated has a credit rating of BBB.

The purpose of this analysis is not to argue that the AER should have

[8] The EMRF considers that these firms should be excluded as they had (other than GasNet) considerable non-regulated activities included in their portfolios which would have depressed considerably their ability to be classed as "pure play energy networks". In particular, the large portfolio of energy retailing in their portfolios (other than GasNet) would have required considerably lower gearing levels in order to maintain a credit rating of BBB+.

increased the gearing and/or the credit rating of the benchmark entity, but to highlight that the AER has been significantly conservative in its setting of the benchmark parameters - this conservatism provides the networks with an outcome which increases their revenues for no real value to consumers.

3.1.2 Corporate bond rates.

In previous submissions to the AER, the EMRF and its affiliate Major Energy Users (MEU) has observed that the corporate bond rates for entities with the same credit rating vary significantly and that energy networks appear to have lower bond rates than other firms with the same credit rating. In its draft decision, the AER acknowledges this (see section G.8.6 of attachment 3) but because the AER prefers to use third party sources of data it is constrained from adjusting the data to reflect this very apparent anomaly.

For the reasons given by the AER, the EMRF does not propose that the bond rates used by the AER for use in setting the cost of debt should be discounted

The EMRF affiliate MEU has previously provided its view to the AER that using corporate bonds is a higher cost source of debt than is available from other sources - this observation has also been made by the ACCC's Regulatory Development Branch in its 2013 paper "Estimating the Cost of Debt".

Both of these observations highlight that using estimates of the cost of corporate bonds to be the basis of the efficient cost of debt overstate the real cost of debt that networks will incur. This decision by the AER again highlights that the approach used adds another level of conservatism into the setting of the WACC and provides networks with another unearned benefit.

3.1.3 Private firm credit ratings and government owned firms.

The EMRF noted in its response to the DB proposals, that the DBs will be granted more revenue than they need because they access their debt at the NSW Treasury Corporation credit rating of AAA yet consumers are expected to pay for DB debt calculated at BBB+ credit rating levels.

The AER has provided a view from M. Klein that it is taxpayers that underwrite the debt sourced by governments through recourse to taxation. The EMRF does not disagree, but points out that the Rules require the network only to be allowed a rate of return

> "…commensurate with the efficient financing costs of a benchmark efficient entity…" (The rate of return objective)

The implication of the rate of return objective is that the financing costs must be efficient. Following from the Klein observation, the AER must be assured that efficiency will be maximized by electricity consumers paying a premium for provision of the networks and that this premium is returned to the taxpayers that underwrite the lower borrowing costs. If there is any doubt that the overpayment is not returned to the taxpayer, then requiring consumers to pay a premium (as the AER does) then the approach used by the AER is not efficient and therefore would not meet the rate of return objective.

In this regard, the EMRF points out that the Rules highlight that an inefficient rate of return has previously been widely attributed to have resulted in significant inefficient capex and specifically rule 6A.6.2(k)(3) draws attention to this concern.

Therefore, unless the AER can be absolutely certain that that the overpayment by consumers to government owned networks by allowing a cost of debt significantly in excess of the actual costs the network incurs is returned to the taxpayers that underwrite the lower cost debt, then the AER should not provide government owned networks with a cost of debt based on accessing the debt on the open market.

By allowing the commercial cost of debt in the WACC for government owned networks, the AER is being excessively conservative and this conservatism provides networks with an outcome that increases the revenues to the networks without providing a benefit to consumers.

3.1.4 Gamma

The EMRF accepts that it is difficult to argue the individual details for each element comprising the value for gamma as there is no consistency in the data that is available.

The EMRF considers that the draft decision on gamma (reducing it from 0.5 to 0.4) reflects a move towards more conservatism in assessing the available information. For example, the AER notes that the distribution rate can be assessed as low as 0.7 or higher to 0.8 depending on the source of data (see tables 4.1 and 4.2 in attachment 4). The AER considers the lower bound for the distribution rate should be used in the calculation of

gamma although it also points out that with that source of data, the utilisation rate might be higher. This approach results in a more conservative outcome than might otherwise apply.

What also concerns the EMRF is that there is a lack of consistency in the approach for setting gamma compared to the basis for setting WACC. For example, the WACC is theoretically based on a pure play regulated energy network business operating in Australia.

However, influences on the calculation of gamma cover a much wider scope of data than this limited group of companies. For example, the distribution rate is based on assessments made from data covering the entire cohort of tax payers subject to imputation. There is a basic assumption made that pure play regulated energy network businesses provide dividend imputation to their shareholders in proportion to the entire cohort of the market. This is a bold assumption. It is widely recognised that certain types of businesses provide less franking of their dividends than others - those with secure cash flows (such as energy networks) are more likely to fully frank their dividends than others. This means that imposing an assumption that the benchmark entity would frank its dividends to the market average is unlikely and therefore a conservative assumption.

Further, offshore investors in the market wide cohort have made a conscious decision to acquire assets to generate income in Australia with the full knowledge that they will not be able to benefit from imputation and this biases the data for the derivation of the utilisation rate.

It would appear that the AER has based its assessments on lower utilisation and distribution rates than would otherwise be the case for a pure play energy network which is the benchmark entity for setting the WACC.

The EMRF questions whether the AER is addressing the correct question with regard to imputation. The EMRF accepts that the data reflects the utilisation of tax credits for the entire cohort of tax payers including offshore owners yet should the revenue adjustment made for regulated assets be based on data for all of the cohort or should it just be based on how a benchmark entity would operate?

The EMRF considers that the AER has moved to a conservative position

on the issue of gamma to the detriment of consumers[9].

3.1.5 The debt transition approach

One of the more contentious issues regarding the AER cost of debt guideline is the transition approach embedded in it. The EMRF affiliate Major Energy Users during the Better Regulation program commented that it saw the need for a transition on the approach to assessing debt was probably not required especially for larger networks because they would have already implemented a phased approach to debt acquisition. The MEU observed that they probably could not have refinanced their debt all at one time and that therefore they would have already had in place a phased approach to debt which the guideline seeks to implement to develop a cost of debt for the benchmark entity.

Countering this, were the views expressed by the smaller networks that either they did refinance their debt at one time (usually when the reset was finalised) as this reduced their risk exposure to volatility in the cost of debt in the future. Other networks commented that although they might have a phased acquisition to their debt, they rehedged the debt portfolio when the reset was finalised as this reduced their risks.

It was clear that there were two opposing views from networks during the Better Regulation program about how debt was managed and therefore opposing views as to how the cost of debt should be assessed in the future.

It was also recognised during the Better Regulation program that there needed to be one approach to assessing the cost of debt - one which recognises that there are both large and small networks which each have their own approaches to managing their debt.

The AER guideline effectively recognises these opposing views and proposes a mechanism that will allow those networks using the "on-the-day" approach (these tend to be the smaller networks) to unwind their current practices and acquire their debt in a manner that minimizes their risk as they move to the AER guideline approach.

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[9] The EMRF points to the absurd situation seen recently in Victoria where the government provided networks with cash to implement enhancements to the networks to limit bushfire risks. Because the AER had granted a gamma less than unity, consumers were obliged to pay a premium to the networks to reimburse them for the potential tax liability they might incur because the government grant is seen as revenue.

Whilst the EMRF recognises that the larger networks might argue that they are disadvantaged by this approach, equally the AER needs to recognise that their guideline should also minimise the risk to other networks as change is introduced.

It was with this in mind that the EMRF and its affiliates supported the AER cost of debt package as appropriate and equitable.

3.1.6 Benchmarking

The fact that the DBs have claimed a higher WACC than that resulting from the application of the AER guideline reveals a failure by the AER to carry out benchmarking of historic outturn financial performance of the energy network firms and compared these to returns seen in the wider market.

A longitudinal study of the financial performance of regulated networks compared to the wider market, after adjusting for the difference in risk profiles, would provide empirical evidence as to the validity (or not) of the claims by the DBs about the WACC guideline development and provide the AER with support for its view that the guideline delivers an efficient allowance for the cost of capital.

3.1.7 Conclusions on draft decision on WACC

The EMRF considers that the AER should apply its WACC guideline in its entirety. The EMRF considers that there has been little new information provided that causes the need to deviate from a guideline that has only been in operation for 12 months.

The EMRF points out that the existing guideline has considerable conservatism built into it. In addition to the points made above, the EMRF points to the setting of the equity beta (where the point estimate is set at the highest point of the credible range) and in the market risk premium (where the set point is also at the higher end of the credible range) also add considerable conservatism into the WACC calculation.

Because of the AER approach at building in conservatism at each assessment point, there is no certainty as what the overall conservatism the AER has allowed into the WACC development. The AER approach effectively results in a compounding of the levels of conservatism and as a result is likely to significantly overstate the amount of conservatism that is being provided.

The EMRF considers that, rather than follow the AER approach at building conservatism at each point in the development of the WACC it should set the parameters at the most likely equitable points and then add a defined amount of conservatism at the conclusion of the calculation if this is considered to be necessary.

3.2 The DB responses to the AER draft decision.

The EMRF notes that the DBs have maintained their view that the AER return on equity guideline is in error, although in their revised proposals, the DBs have adjusted their return on equity to reflect the change in the risk free rate.

Despite the extensive work by the AER, the DBs have universally rejected the AER guideline and continue to insist that their approach provides a more balanced assessment for developing a return on equity. The DBs propose that due to tight timeframes, they have not been able to provide all of the supporting data and arguments in their revised proposal to sustain their view that the AER guideline is in error. The EMRF finds this quite concerning. The AER guideline has now been public for 12 months and the DBs all had the opportunity to provide input during its development through the Better Regulation program. The AER has been quite clear on how it arrived at its guideline and in the draft decision explained how it has implemented the process. For the DBs to regurgitate their arguments (even when backed up by additional consultant views) begs the question as to whether the proposals from the DBs provide a more balanced outcome.

The EMRF notes that the AER guideline has resulted in an approach that has varied only a little from that used by Australian regulators for over 15 years. What the DBs fail to recognise is that the historical performance of the long term approach has resulted in sale prices for network assets which have consistently exceeded the regulatory asset base (RAB). This longitudinal assessment quite clearly provides a view that the AER guideline does reflect a reality that is totally missing from the DB views on the AER guideline. If the DBs (and their consultants) were correct in their views, then the sale prices would be less than the RAB, but history shows this is not the case. This empirical evidence provides a clear counter to the theoretical arguments of the DB consultants.

With regard to the cost of debt guideline, the DBs consider that the AER has erred in applying the transition program to them as they are large networks and need to acquire debt on a staggered basis and not as a point cost as the transition approach implies.

The EMRF considers that the DBs are dissembling in this regard as the actual

cost of DB debt is well below the allowance assessed by the AER under the cost debt guideline. If the DBs consider that their cost of debt has to be assessed in a unique fashion because of their size, then the EMRF considers that its cost of debt should be based on what it actually costs the DBs rather than using some construct such as that implied by the AER cost of debt guideline. It is bizarre that the DBs consider that the AER should give them special preference because of their size yet it should also give them a larger cost of debt allowance than they actually incur because it disagrees with the way the AER intends to apply its guideline.

The EMRF accepts that the DB debt is probably too large to have been hedged due, as implied by the cost of debt guideline, to market liquidity difficulties but equally, as the DB debt did not need to be hedged (because it was sourced from the NSW T-Corp at a cost considerably less than the market cost for debt of this size) then the issue as to whether it could or would have been hedged is moot in the extreme.

What the DBs overlook is that the AER is required to provide an allowance for them so that they can reasonably expect to recover their costs (in this case their cost of debt). There is no doubt that the DBs will be able to do this within the allowance provided by the AER when using its guideline as the cost of debt they incur on borrowings from NSW T-Corp are well below those resulting from the AER guideline.

In their proposals, the DBs asserted that application of the AER guideline (specifically the transition approach) would cause them not to recover money that they would lose if the transition approach is applied because this would prevent them from recovering the high costs of debt incurred during the GFC. This is quite untrue. The cost of debt incurred by the DBs during the GFC was little different to the costs of debt they acquired both pre and post the GFC[10] so the DBs have not been in any way disadvantaged by applying the transition approach to the cost of debt.

The EMRF considers that the DBs are self serving in the extreme by persisting with their view that they are disadvantaged by the application of the transition approach for the cost of debt allowance and considers that the AER guideline (developed after considerable research and consultation[11]) should be applied as it stands rather than be modified because the DBs consider that it is incorrect.

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[10] The EMRF refers the AER to the published annual reports from the DBs which provide evidence of the cost of debt they actually incurred

[11] The EMRF provides its views on the transition approach in section 3.1.5 above

3.3 Pass through events

The use of “pass throughs” is a mechanism for the regulated entity to reduce its risk by passing these onto consumers. Consumers have little ability to manage the risks faced by networks whereas a network has the ability to prevent, mitigate or pass the risk to another party (eg insurance). The EMRF points out that the rules are designed to pass a risk to the party best able to manage the risk. In principle, this means that there should be limited ability for a network to pass a risk onto the consumers.

In addition to previously accepted pass throughs, the DBs sought to add further pass through events including insurer’s credit risk event and an aviation hazards event and added new definitions to previously accepted pass through events.

The AER has not accepted the DB proposed changes (either the re-definitions or the additional events). The EMRF considers that the AER is correct in its draft decision for the reasons given.

The EMRF notes that in the cases of the additional pass throughs sought, insurer default and aviation hazards, the DBs have the ability to readily manage these risks and it is unreasonable to seek consumers to bear these risks.

The EMRF notes that the DBs should have an incentive to better manage the risks inherent in all of the allowed pass through events. In this regard, the EMRF considers that the DBs should be exposed to some share of the costs that might result from these pass through events. If they were so exposed, even to a relatively small proportion of the risk, then this could result in better management of the risk. The concept of sharing is already embedded in the regulatory bargain through the benefits of revenue from shared assets and the EBSS, the CESS and STPIS and a sharing of the costs from allowed pass through events would be no different.

But the DBs must accept a fundamental aspect of a pass through cost event - that by causing consumers to carry the risk of such an event that this must have in impact on the allowed return on equity. Other than regulated firms, no other firm has the ability to pass through to their customers the costs they incur as a result of such event. If the firm does elect to pass through such a cost, it must accept the decisions of its customers to change suppliers if they elect to do so in response to the price increase. Such a move by its customers would impact the firm’s return on equity. So if networks seek to have consumers carry the risk, then the networks need to accept they should have a lower return on equity. As discussed in section 3.2 it is clear that the DBs do not accept they should be allowed a lower return on equity to reflect their lower risks.

The EMRF considers that the AER has balanced the return on equity in keeping with the risk profiles of the DBs and that the two aspects (pass through events and return on equity) must be assessed together rather than being assessed separately.

4. Depreciation

The EMRF notes that the DBs propose to retain the same rates of depreciation as that provided in the current period and this has been accepted by the AER in its draft decision. The EMRF accepts this

The EMRF notes that the DBs all forecast that they intend to vary the asset lives at the next reset. The EMRF is concerned at this intention as it seems to highlight a view that perhaps the current asset lives used are inappropriate. In the absence of any specific proposal on changes to asset lives, the EMRF is unable to provide any other input.

It would appear that the decision of the DBs to address asset lives at the next reset is based on a view that other DBs have shorter lives for some of their assets. It would therefore be appropriate for the AER, over the next few years to carry out a review of standard lives for different classes of assets so there is some commonality across all DBs. The concern that the EMRF has is that unless there is a review of the expected lives of all assets, then what will result is the shortest asset lives will become the norm across the NEM. Using the shortest asset lives will lead to consumers paying greater amounts in the allowed revenues for the return of assets. Further, there is the risk that the economic life of assets would be shorter than their technical life resulting in increased requirements for capex in the future.

5. Opex

The three DBs all profess that their base year opex is efficient and on this premise (after making a few adjustments) they develop a forecast of opex needed for the next period. In its response to the proposals from the DBs the EMRF considered that the opex claims were excessive and recommended the AER determine a reduced opex allowance for each.

The AER has carried out a considerably detailed review of the assumptions made that the DBs used to develop their forecasts, viz:

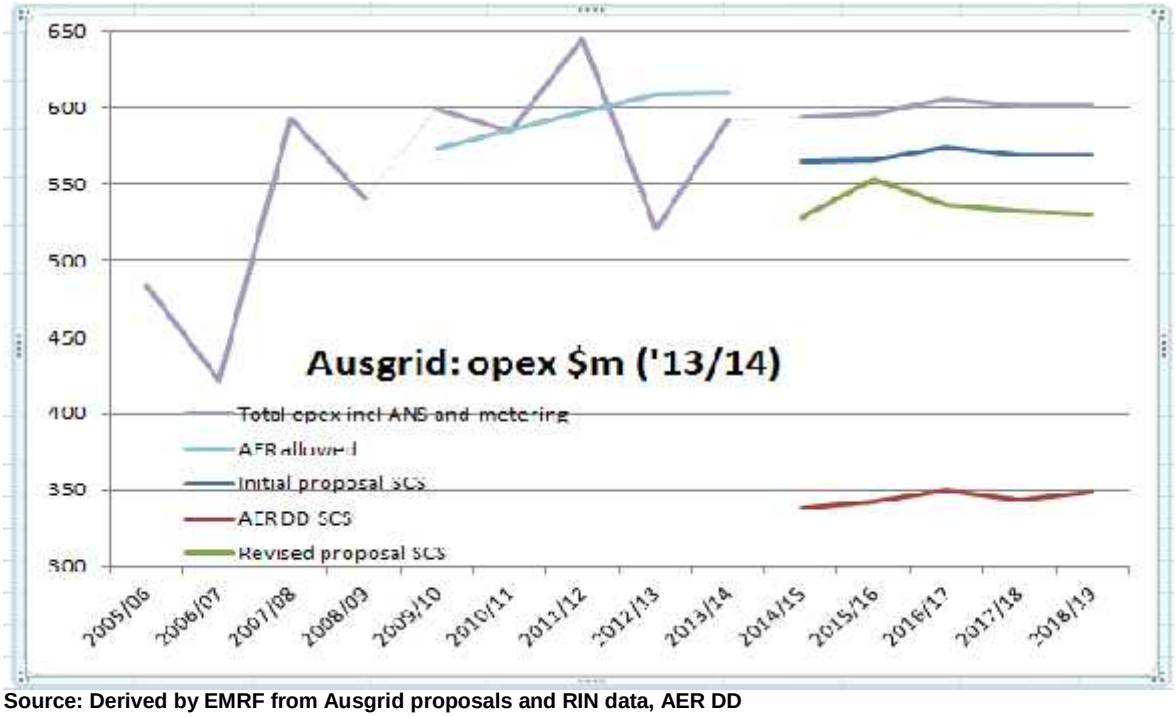
- Efficiency of the base year opex
- The impacts of forecast growth on the base year opex to generate a forecast,
- Step changes that would impact the forecasts
- The expectation of improved productivity over the coming years.

One of the key but new features of the AER approach to identifying an efficient forecast is that it has not being drawn into debates about specific elements of the opex forecasted by the DBs but has retained the clarity of its top down assessment by considering the opex needs on a holistic basis rather than (as it did in the past) assessing the efficiency of specific elements. This approach then allows the DBs to make their own decisions as to how they will allocate the overall opex allowance. Such an approach removes from the AER one of the main criticisms of the previous AER approach which provided an avenue for the networks to allege that the AER was too involved in operational details.

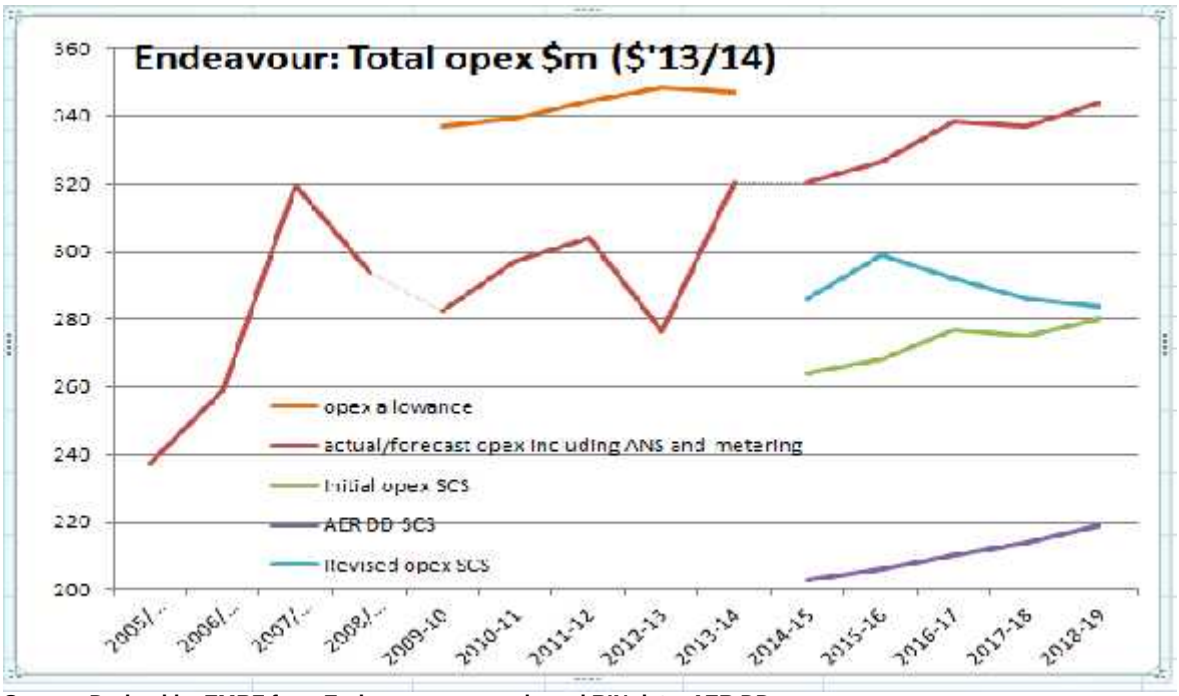
The other aspect of the AER approach is that it has carried out a number of different assessments of the opex needs and from these has identified that its approach is internally consistent - ie that there is little variation to the identified outcome regardless of the approach used for the assessment. This is in stark contrast to the approach by the DBs where the DBs used different but mutually exclusive approaches for the opex assessments where some were based on an assumption of the efficiency of a specific element of cost in the base year and in other cases where the opex build up was based on a bottom up development of the cost without reference to the actual base year costs for that element.

Subsequent to the AER draft decision, the DBs have all advised that the AR draft decision provides too little opex for them to maintain the reliability of electricity supplies to consumers.

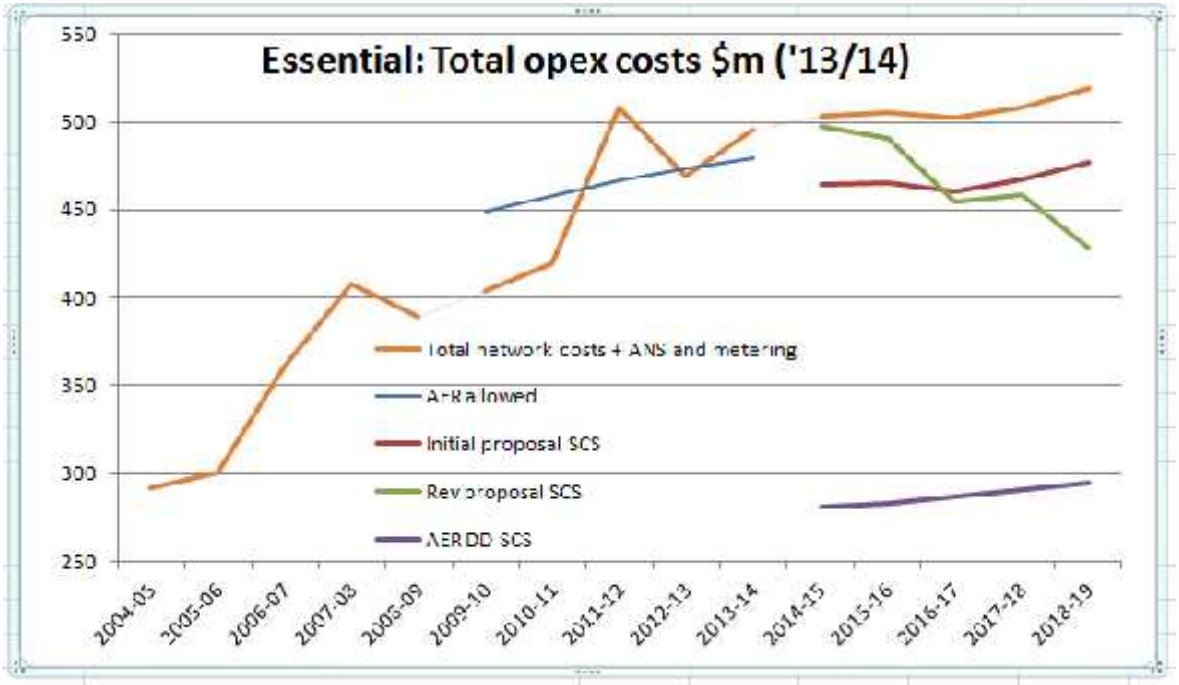
The following three charts show the historic opex performance of the DBs, their initial proposed opex, the AER draft decision on opex and the opex in the revised proposals.



Source: Derived by EMRF from Ausgrid proposals and RIN data, AER DD



Source: Derived by EMRF from Endeavour proposals and RIN data, AER DD



Source: Derived by EMRF from EssentiaLproposals and RIN data, AER DD

What is concerning about the DB revised proposals is that they have effectively rejected the AER draft decision and only marginally adjusted their initial opex allowances.

The reasons given for this rejection include:

- The AER has not identified where the elements of the opex claims were wrong and thereby not allowed for the unique circumstances of the DBs
- There was insufficient examination of the bases of the opex claims and dialogue to allow explanation
- Too much reliance has been placed on the benchmarking, especially considering the limitations of such an approach, inherent errors in the work undertaken and poor selection of the variables used
- The AER has not considered that the draft decision will result in greater risks in delivering reliability and providing a safe environment

5.1 Benchmarking

With regard to opex, there is considerable argument provided by the DBs about the ability of the AER to impose its assessments based on benchmarking. For example, Ausgrid expounds extensively on its interpretation of the rules where it considers benchmarking is just one tool for assisting in assessing an efficient allowance. The AER draft decision provides its view that benchmarking has clearly

shown that the base year opex is inefficient through its benchmarking analysis but, as the AER also assessees the opex using other tools, it is clear that benchmarking is not used exclusively. The DBs have rejected the outcomes of the AER benchmarking and other testing and replaced their initial opex assessments with revised assessments which are still well distant from what benchmarking indicates is an efficient allowance.

The DBs all assert that the AER is required to accept their proposals for opex as they are the more knowledgeable about providing electricity network services and therefore their views are more credible than those of the AER. This is not the case. The rules require the AER to accept a proposal from the DBs **if** it is reasonable but reasonableness requires that the proposal is demonstrably efficient. The AER has identified through various tests that the proposals are not efficient and in the absence of anything else determined an allowance which is demonstrably efficient. The AER cannot make any other decision than to use the outworkings of its testing as an indication of what would meet its requirement to provide an allowance that is efficient.

The DBs have all provided their revised assessments for their opex. What is patently clear is that the revised estimates for opex are still well remote from what the benchmarking and other testing shows is the efficient level. What is absent from the DB arguments for rejecting the AER assessment is why their actual performance is so much worse than that of other networks.

The EMRF could accept that there was legitimacy in the DB claims that the benchmarking and other testing was inappropriate:

- If the AER approach had provided outcomes that was variability between the different approaches but this is not the case as there is consistency in the outcomes of the benchmarking regardless of the comparator used.
- If there was variability in outcomes between the networks. There are some very clear conclusions that can be drawn from the benchmarking undertaken. This is particularly notable in the differences between privately owned networks and those owned by governments, with private ownership showing a strong bias towards more efficient opex.
- If there was a lack of consistency between the various approaches used by the AER to test the benchmarking outcomes. What is clear is there is great internal consistency between the different AER approaches that is not present in the DB opex claims and refutation of the AER approaches.
- If the explanations detailing why the benchmark comparators were more clearly demonstrated to be wrong and if there reasons provided why the various primary drivers of the opex (eg as detailed in Essential's revised proposal figure 7.3) are so different to those applying to the other networks thereby making them unfit for purpose. For example, Essential considers

that vegetation management is a function of vegetation growth rate but with a low correlation to line length. In fact, vegetation management is a function of both growth rate and line length because all networks have to clear vegetation from along their power lines. The major difference between Essential's vegetation management and those of other DBs is not vegetation growth rate (which is common to all networks with some more exposed to higher growth rates and others less) but the line length. Therefore the benchmark variable of line length is a better comparator for differences between networks than asserted by Essential and its consultant.

- If there had been no active involvement by Essential (and all other networks) in the development of the AER guideline on benchmarking which included the setting of the key variables[12]. It is inappropriate for Essential to be complaining now that the benchmarking variables are wrong when they (and all the other networks) had adequate time to argue for different variables to be used for benchmarking. For example, the issue as to whether ratcheted peak demand should be used as a variable was debated extensively during the Better Regulation program. The argument was put (and accepted) that ratcheted peak demand was an indicator of the requirement on a DB to meet the needs of the customers served. When this is coupled to the numbers of customers and the line lengths required, it was recognised that in combination, the variables reflected the other key cost driver to power line maintenance - that of the number of substations and the size of the substations for their maintenance. For the DBs to now aver that the comparators are inappropriate now they have seen the outcomes is self serving in the extreme.

The advisers on benchmarking to the DBs assert that there are many other variables that impact on the opex requirements than the three used by the AER, including age of assets, spatial density, reliability trends, environment, etc. This is acknowledged, and these were debated at length but it was rationalised that these other influences could be reasonably assumed to be addressed within the accepted three comparators either in combination or uniquely.

The DBs assert that the AER approach does not comply with the intent of the AEMC rule changes nor on the Productivity Commission views on benchmarking. The EMRF disagrees. Firstly, all of the reviews and analysis clearly require that the allowance has to be efficient. The second requirement is that benchmarking must play a much greater role in identifying if the allowance is efficient.

[12] The EMRF had one of its advsers present at the meetings discussing benchmarking and category analysis during the Better Regulation process.

The core issue is that the DBs consider that their base year opex was incentivised using the EBSS and therefore, as applied in past reviews, can be assumed to be efficient. The rejection of the benchmarking analysis by the DBs prevents the second leg of the requirement (ie benchmarking) to verify if the first leg is satisfied.

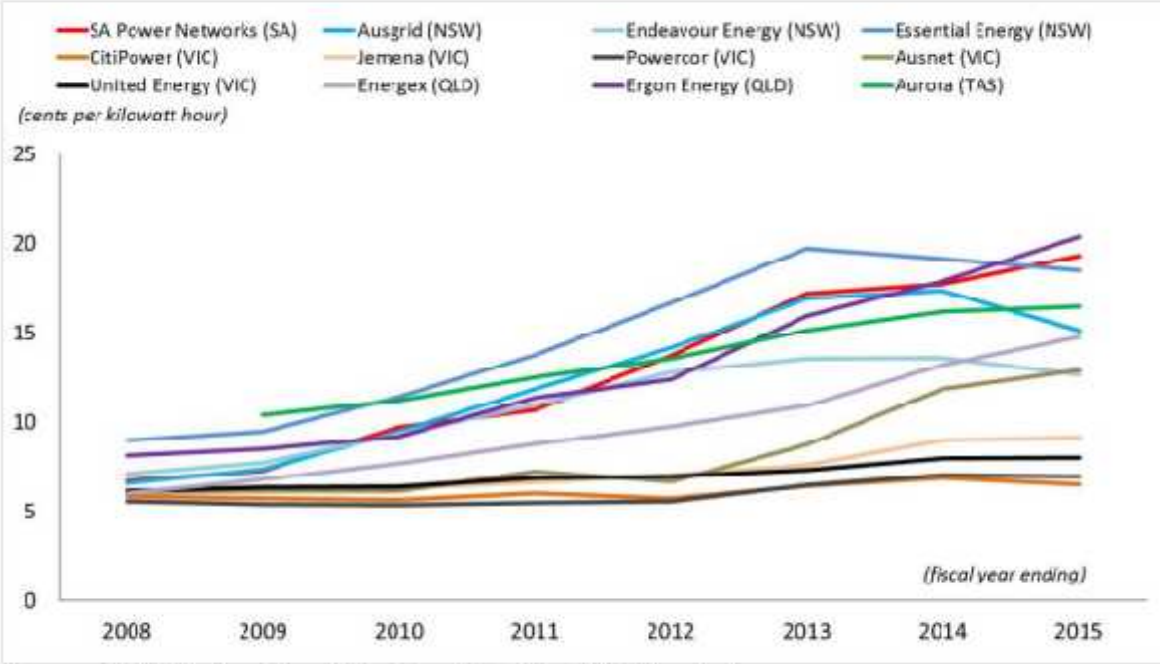
The DBs have all stated that their revealed opex for 2012/13 is efficient by virtue of the EBSS that applied. This is not necessarily correct as the opex for the 2009-2014 period was set based on the unproven assumption that the opex in 2007/08 was efficient and that the increases granted in 2009 were also efficient. What the DB outturn opex for 2009-2014 has shown is this assumption was clearly incorrect as all three DBs under-ran their allowed opex for this period.

What is important is that the AER benchmarking assessment is now demonstrating that this earlier assumption (ie the base year was efficient) would appear to be incorrect. This means that the AER must identify to what degree that the base year opex is inefficient. There are a number of important aspects that must be considered when assessing the degree of inefficiency:

- The DBs are all advising (both in their initial and revised proposals) that they consider there are more efficiency savings to come as they work through implementing change. This reinforces that the AER assessment that the base year opex for all three is inefficient, supporting the AER contention.
- The clear requirement of the Rules is that the AER must only allow an efficient allowance. There is no requirement that if inefficiency is identified that there should be a transition from inefficient to efficient allowances
- Does the AER insist on the allowance being set at the efficient frontier? The rules would imply that this should be the case, but the AER has not done this - it has identified that an efficient allowance for the DBs is not where the benchmarking identifies the efficient frontier is, but by averaging the performance of the more efficient DBs and then allowing a further adjustment. This adds a level of conservatism to the AER assessment.
- The revised claims by the DBs generally reduce their initial claims (Essential's revised claim basically retains the aggregate opex despite its poor benchmarking position) with the most efficient Endeavour reducing its opex the most in proportionate terms.

A recently released report[13] from UnitingCare Australia reinforces that overall the NSW DBs have the highest prices for their network services for the average household in the NEM. Whilst this is not conclusive evidence that the DBs' opex is not efficient it reinforces the AER benchmarking work that the NSW DBs are more likely to be less efficient than other networks. These pricing trends are shown in the following chart drawn from that report.

Figure 4. Average network charge (c/kWh) 2007/08 to 2014/15



Source: Published residential network tariffs, CME Analysis

Interestingly, consistently the prices for network services charged by Endeavour are significantly lower than those charged by the other two NSW DBs (Ausgrid and Essential) replicating the opex benchmarking undertaken by the AER which shows that Endeavour is more efficient than the other two. It also is important to note when making comparisons, the Ausgrid network includes the most densely populated and industrialised areas of NSW including the Sydney CBD and its northern suburbs up to and including Newcastle.

[13] Network tariffs applicable to households in Australia available at http://www.unitingcare.org.au/images/stories/publications/2015/150211_Network_tariffs_applicable_to_households_in_Australia-empirical_evidence.pdf

That the DBs have been permitted to increase their prices by such an extent despite their being falling demands and consumption indicates a clear disconnect with what occurs in the word of competition.

In the competitive world, where EMRF members operate, when there is falling demand for their products, firms have to reduce their prices. To achieve this requires lower costs (including opex) to be achieved to stay in business and retain market share. To reflect the considerable outrage at the burgeoning costs for power driven by excess network cost rises, the DBs need to reduce their costs considerably if regulation is to be used as a surrogate for competition.

This is what the AER benchmarking exercise shows must eventuate.

5.1 Base year opex

The AER determined in its draft decision that none of the NSW DBs had efficient opex in the base year and as a result adjusted the base year opex down considerably. These adjustments are in the table below drawn from the AER attachment 7 to the draft decisions.

Table A.1 Draft determination estimates of efficient base year opex ($million 2013–14)

	Ausgrid	Endeavour	Essential
Proposed base opex (adjusted)[a]	488.6	224.0	414.9
Substitute base opex	**325.9**	**201.0**	**270.8**
Difference	162.7	23.0	144.1
Percentage opex reduction[b]	**33.3%**	**10.3%**	**34.7%**

Note: (a) we have adjusted the service providers' proposed opex for debt raising costs, new CAM (if applicable) and new service classifications.
(b) Implied opex reduction is relative to proposed opex[47]
Source: AER analysis.

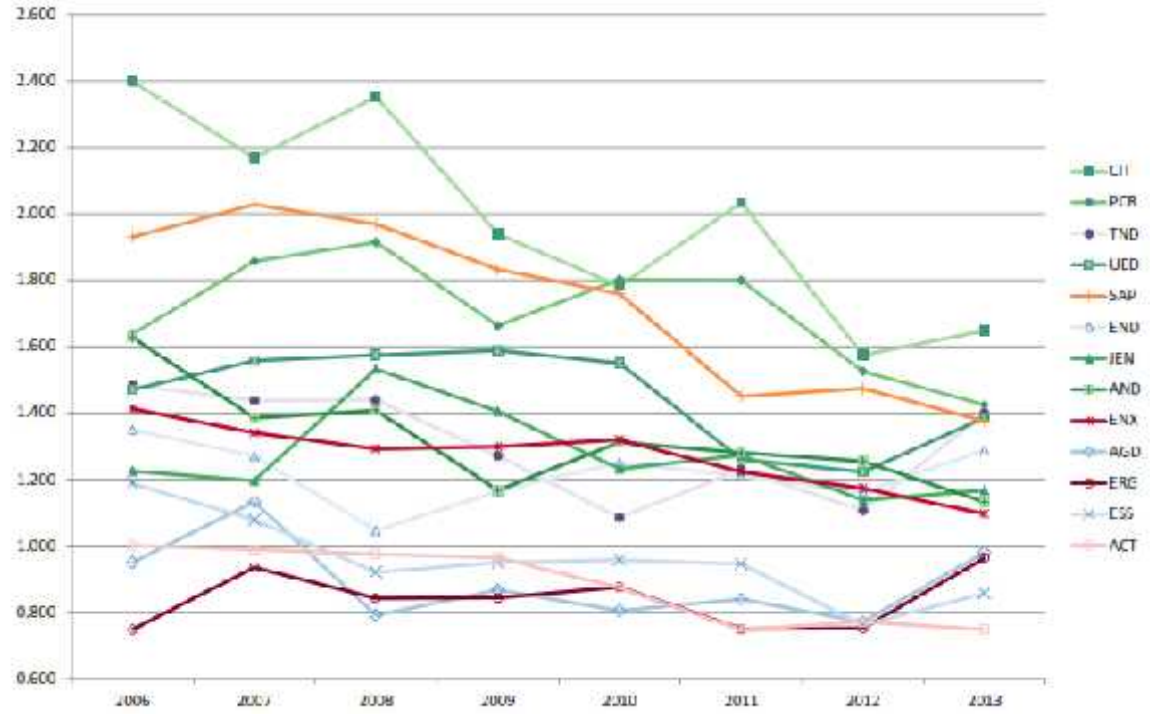
The AER based this on data provided in its Annual benchmarking report for DNSPs released in November 2014[14].

That report provides considerable evidence that not only is the base year opex for the three DBs quite inefficient, but that over time the efficiency of their opex has fallen for each of the DBs, although the opex productivity of Endeavour is not only better than that of the other two both in comparative terms but also on a

[14] Unfortunately the EMRF did not have access to this report when it provided its response to the DB proposals in the middle of last year

longitudinal basis where Endeavour has almost recovered its earlier years of loss of productivity. This is evidenced in the following chart drawn from the AER benchmarking report

Figure 19 **Partial factor productivity of opex**



In the same report, the benchmarking of opex relative to maximum demand (figure 25 in the report) and per customer (figure 26) both show that all three of the DBs are quite remote from the efficient frontier, again with Endeavour being the most efficient of the three.

This high level assessment supports (on a qualitative basis) the adjustments to the base year opex proposed in the AER draft decision - that the opex adjustment for Endeavour is considerably less than that determined for the other two DBs. The AER addresses this disparity in its assessment highlighting the determination of the AER to ensure its assessments are internally consistent.

To identify an efficient frontier for the NSW DBs, the AER uses the average of the productivities of the better performing networks to set the efficient level for the three DBs. This inevitably increases the conservatism that the AER is applying to its overall assessment of an efficient allowance.

Essentially this means that the AER has not set a base year opex at the efficient frontier, but at some distance from it. In addition, the AER has allowed a premium

in the assessments for the DB efficient opex by accepting that the DBs should be provided with a 10% operating environmental factor allowance to reflect operating environment differences; this further increases the conservatism inherent in the AER draft decision. Essential acknowledges this in its table 7-3 of its revised proposal by showing that the AER has not imposed opex at the efficient frontier but at some considerable distance from that point.

In response to the AER draft decision, the DBs have rejected the AER benchmarking in its entirety and, other than pointing out the errors they assert are embedded in the AER benchmarking, have offered little alternative to the AER having to accept their own self assessment. They have not any independent evidence that their revised offers can be shown to be efficient.

Until the DBs can demonstrate by independent means that their self assessments reflect efficient opex, the EMRF considers that the AER approach of using a suite of indicators and analysis of the processes used by the DBs to develop their opex allowances, is much more robust than merely self assessment.

However, it is important to note that Mr Vince Graham (CEO of Networks NSW) is quoted as saying[15]:

> "…while he agreed with the AER that electricity businesses in NSW were grossly inefficient, he said the draft determination would require 4600 job losses this year. The Networks NSW counter-proposal would cut 2200 job gradually across the three businesses by 2019 … [and] he had no doubt the businesses would operate more efficiently as private businesses..."

This is a clear statement from the Networks NSW CEO that the base year costs cannot be considered to be efficient and it reinforces the outcomes of the AER benchmarking are more likely to be right (than wrong as asserted by the DBs) as the benchmarking shows clearly that the privately owned networks are more efficient.

Two questions then arise out of the comments by Mr Graham:

1. What are the efficient base year costs to be used for setting the forecast opex for the three DBs?
2. What transition process should be allowed if a less than efficient opex is allowed at the start of the regulatory period?

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[15] See appendix 1, "NSW network boss Vince Graham backs privatisation"

The EMRF considers that the AER has little option but to apply an efficient base year allowance. In this regard, the EMRF notes that:

- Consumers have being paying an unnecessary premium on their electricity supplies for many years and they should not be required to continue to do so
- EMRF members have been subjected to massive reductions in their prices and have not been granted any relief by their customers - this is what occurs in competitive markets. As they have also paid an unnecessary premium for network services in the past, they want their network prices to reflect the most efficient costs and they want it now.

5.2 Transition to an efficient opex

The DBs are all of the view that they can implement changes that will reduce their future opex to efficient levels. The fact that they all consider that this is the case supports the AER view that the base year opex cannot be assumed to be efficient. The EMRF sees the essential inconsistency of the DB observation - yes we can reduce costs further in the future but our base year opex is efficient. The two are mutually incompatible - either the base year is efficient and therefore future savings are limited or the base year is inefficient.

In the comments from Mr Vince Graham[16] (CEO of Networks NSW) he makes it clear that he sees a need for a transition from the actual current inefficient costs to achieving an efficient allowance.

The NER 6.5.6(c) states that the opex must be:

> (1) the efficient costs of achieving the operating expenditure objectives; and
> (2) the costs that a prudent operator would require to achieve the operating expenditure objectives; and
> (3) a realistic expectation of the demand forecast and cost inputs required to achieve the operating expenditure objectives.

The opex objectives require the achievement of meeting and managing of expected demand, compliance with regulatory obligations or requirements and maintenance of quality, reliability and security of supply.

[16] See appendix 1

There is no doubt that subclauses (1) and (2) of NER 65.6(c) require the AER to set an efficient opex now as it is recognised that the current levels of opex are inefficient and that a prudent operator should be operating at an efficient level.

Similarly, setting the efficient level of opex would not impact the requirement to meet and manage the expected demand and nor should it affect meeting regulatory obligations or for meeting the requisite quality of supply. The DBs assert that it will be the reliability, safety and security of supply that will be impacted by the setting of an efficient opex at the start of the regulatory period[17].

The conundrum for the AER is that a competitive market does not provide such safety nets as a transition to efficiency. What occurs in a competitive market is that prices fall and the firm has to adjust quickly. The slower it reacts to reducing its costs the longer the firm makes a loss.

The EMRF points to the impacts that the iron ore and oil producers are having to address now where their prices have fallen by 50% in a matter of months. The iron ore and oil customers are not providing the producers with a gentle adjustment in their prices[18] so the EMRF asks why the electricity DBs should expect their customers to provide a glide path so they can implement efficiency measures over a period of time.

The EMRF considers that the AER must recognise that it builds up a total revenue allowance (with that allowance comprising a series of efficient inputs) but does not specifically allocate how that allowance is to be used. This means that it is the DBs that make the decision on how the total allowance is to be allocated. Therefore the DBs must allocate sufficient of their allowance to ensure they comply with the obligations they have. The EMRF considers that if this means the DBs have to reallocate funds away from that part of the total allowance which reduces their profits then this is what would occur in a competitive environment - if a firm in competition still had obligations that forced its opex to be higher than what is efficient, this would directly impinge on the profits that it might allocate to its shareholders until its opex reached the efficient level.

What the DBs are seeking is that consumers should accept higher than efficient prices so that the DBs' shareholder can still receive its full dividend. This is totally inequitable as the DBs' shareholder does not take any pain whilst continuing to require consumers to continue incurring unnecessary costs. Such an outcome is totally contrary to what occurs in a competitive market.

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[17] See appendix 2 for example
[18] See for example, appendix 3

The EMRF does not consider that the AER should provide an efficiency guide path but should set the opex at the efficient level at the start of the regulatory period.

5.3 Step changes

While each of the DBs applied for specific step changes to be added to the base year costs, the EMRF provided a view that the costs that were sought by the DBs were already embedded in the base year costs and were not real step changes as such.

In particular the DBs sought additional opex to manage higher costs for vegetation management. The EMRF notes that the approach taken by the AER in regard to setting the efficient base for opex effectively incorporates the efficient costs for vegetation management.

The EMRF points out that vegetation management is a cost carried out by all of the networks in the NEM and so it is an implicit element of the opex needed by every DB; therefore it is part of the efficient costs revealed by the benchmarking studies. For the DBs to support their view that they incur higher costs for vegetation management than other DBs in the benchmarking study would have to be proven and the EMRF considers that this would be challenging indeed when it is recognised that the Victorian DBs are more exposed than most DBs to the impacts of vegetation growth than most other DBs in the NEM. Yet it is the Victorian DBs that are seen to be the most efficient in terms of opex.

The NSW DBs also highlight the risks they face from bushfires and management of their assets to minimise the risk of network induced bushfires. Again the Victorian and South Australian networks have a much higher risk of bushfire impacts on their networks than do the NSW DBs. It is accepted that the risks of network induced bushfires is indeed high but again, it has been demonstrated in Victoria as a result of the class actions against the electricity networks that the outcomes for poor maintenance practices lie not in the opex allowance but by reducing the returns to shareholders.

The EMRF notes that the AER has taken an alternative approach to making allowances for step changes by using the outturn productivity seen of the networks over time. In almost all cases, the incidences of step changes occur not at regulatory resets but throughout each regulatory period. As such, the impacts of these step changes are usually reflected in the benchmarking as that uses actually incurred opex. For example, the EMRF notes that the AER did allow a step change for SA Power Networks (SAPN) during its current regulatory period to address unusually high vegetation growth management resulting from an excessively wet weather spell. This additional impost is included in the SAPN

actual opex which then influences the benchmarking outputs which then flow to other DBs in the NEM.

The EMRF accepts that using an overall productivity adjustment which is inclusive of step changes that actually occur is a more robust approach than attempting to assess individually a productivity allowance and then assessing individual step changes at a reset.

5.4 Productivity adjustment

As discussed in section 5.3 above, the AER has introduced a new approach to adjusting for future productivity allowances. This entails using historic productivity outcomes inclusive of step changes as the adjustment for the future movements in costs. This approach works if the AER sets the base opex allowance at the efficient level.

However, the DBs have sought to implement a transition approach for moving the opex allowance to the efficient level. If the AER does decide that a transition is to be implemented, then it must add a second level to the productivity adjustment so that not only is the long term productivity adjustment applied, but there must be a further productivity adjustment made for each year to bring what is an inefficient opex to the efficient level.

5.5 Growth (output) adjustment

The EMRF considers that the AER approach to adjusting for output growth detailed in the draft decision reflects better practice than that used for previous resets. The decision to use the three drivers identified as the basis for the growth of costs is accepted but the EMRF queries the weighting the AER applies to the three drivers.

In particular, the EMRF queries the decision to apply a weighting of 67.6% to customer numbers yet only 21.7% to ratcheted demand and 10.7% to line length. The EMRF is not aware how these weightings were developed but considers, at a superficial level, that they are excessively biased towards customer numbers driving opex whereas the EMRF considers that line length and ratcheted demand should have higher weightings as these are more reflective of the actual assets used in providing the services.

5.6 Conclusions

There is little doubt that the revealed opex costs incurred by the DBs are inefficient - that fact that the CEO of Networks NSW states this so baldly erodes the arguments provided by the DBs that their opex proposals are efficient. As the AER benchmarking shows that the revised opex proposals are not efficient either, this leaves the AER with a need to define what can be assessed as an efficient level of opex for the DBs.

The EMRF considers that the AER must persist with using its benchmarking combined with the other tools it has available to it to demonstrate that the AER approach provides an internally consistent assessment of what is a core element of the reset. The EMRF notes that the consistency of outcomes from the benchmarking and other studies clearly shows that despite the assertions of the DBs and their consultants, the AER assessment results an outcome that better meets the requirements of the NEO and the rules than either of the DB initial and revised opex assessments.

The implicit request from the DBs and the explicit statement from Networks NSW CEO Mr Vince Graham considers that if the AER does not accept the revised proposals and considers the opex allowance should be lower, then the DBs should be given a "glide path" in reducing the opex allowance. The EMRF does not consider the rules allow for such an outcome and even if they did, then allowing a glide path is not consistent with what occurs in a competitive market.

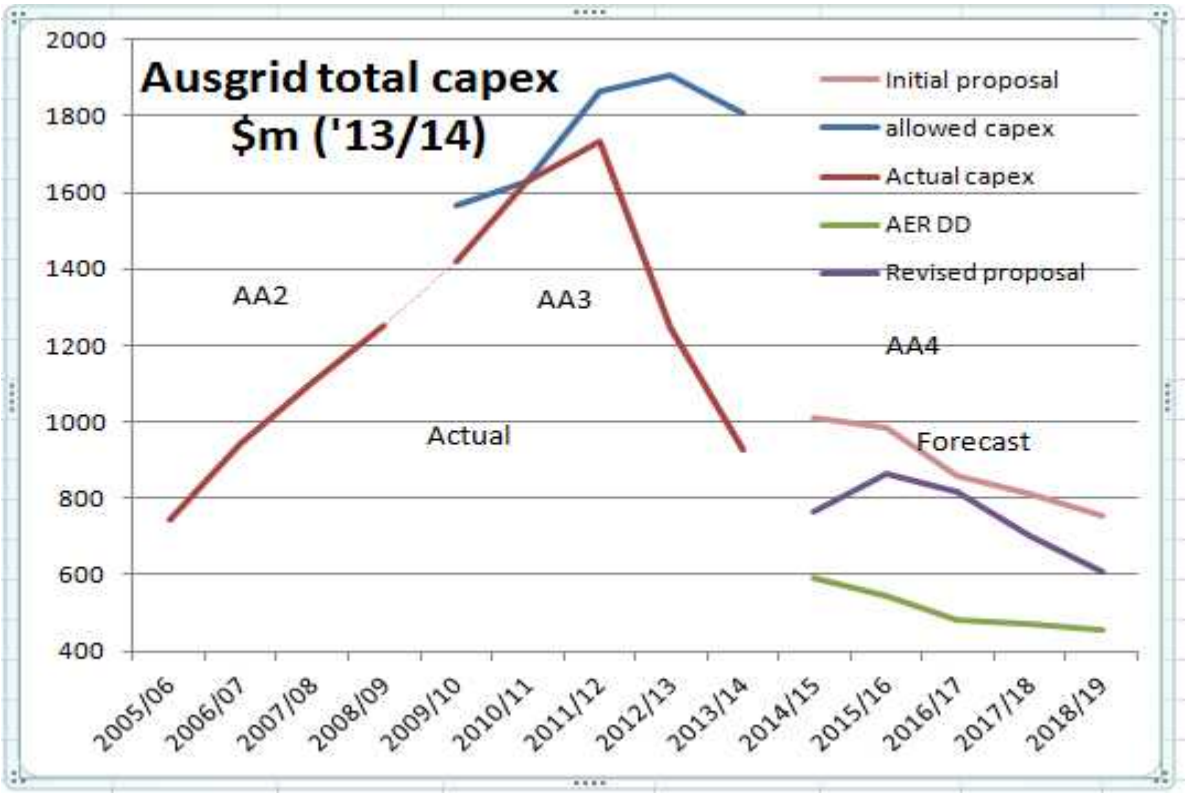
The EMRF considers that the AER provides an overall revenue allowance (a "bucket of money") for the provision of the services. If the DBs require more opex than is efficient as they transition towards greater efficiency, then the additional funds should come from the profits included in the AER revenue build up as this would be consistent with what occurs in a firm operating in a competitive market.

6. Capex

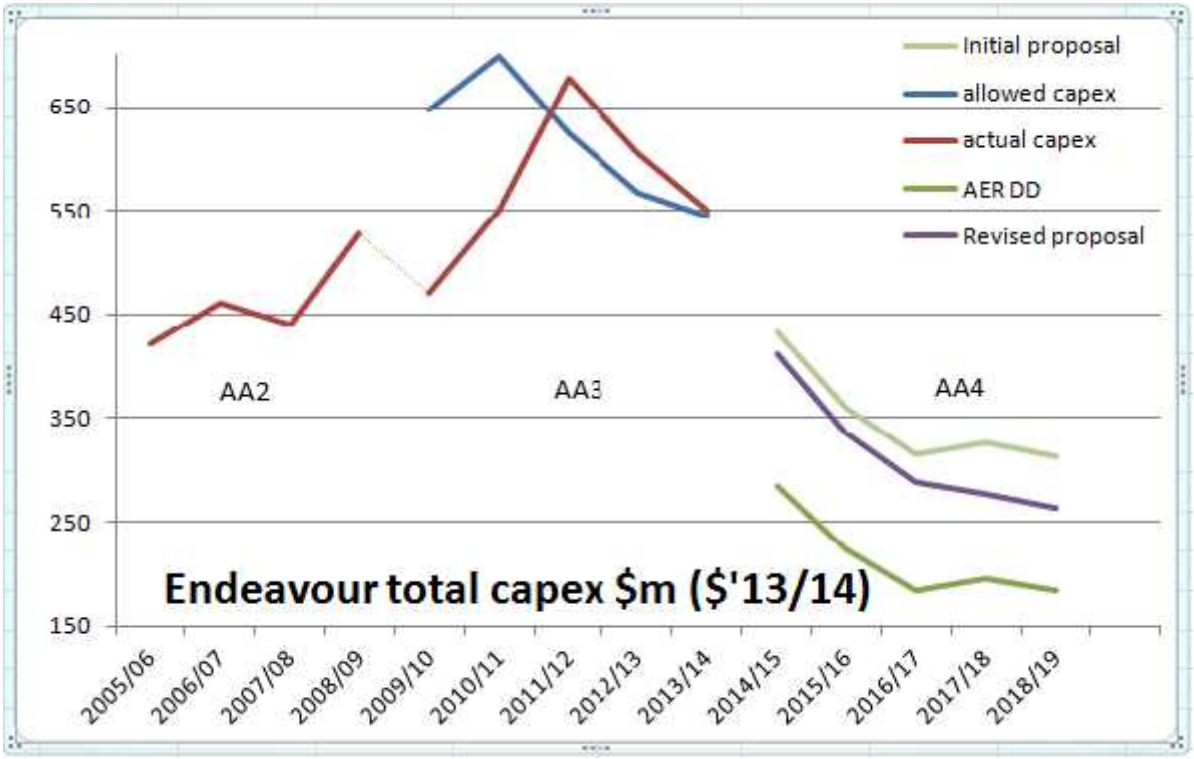
The EMRF assessment of the capex proposals from the DBs showed that they had grossly over claimed for the capex needs in the last period and by significantly under-running the allowance, they all received a considerable benefit. The forecasts by the DBs for the next period tend to reflect the actual expenditure on capital works in the latter years of the current period.

The EMRF was concerned about the capex claims because there was little change in the demand that the DBs had to accommodate (implying little or no need for augmentation capex - augex) and that there had been a considerable overrun in the current period in replacement capex (implying that the over-run had obviated need for as much replacement capex - repex - as they had effectively "preloaded" repex for the next period by overspending in the current period). The EMRF considered that overall, the initial proposals were excessive.

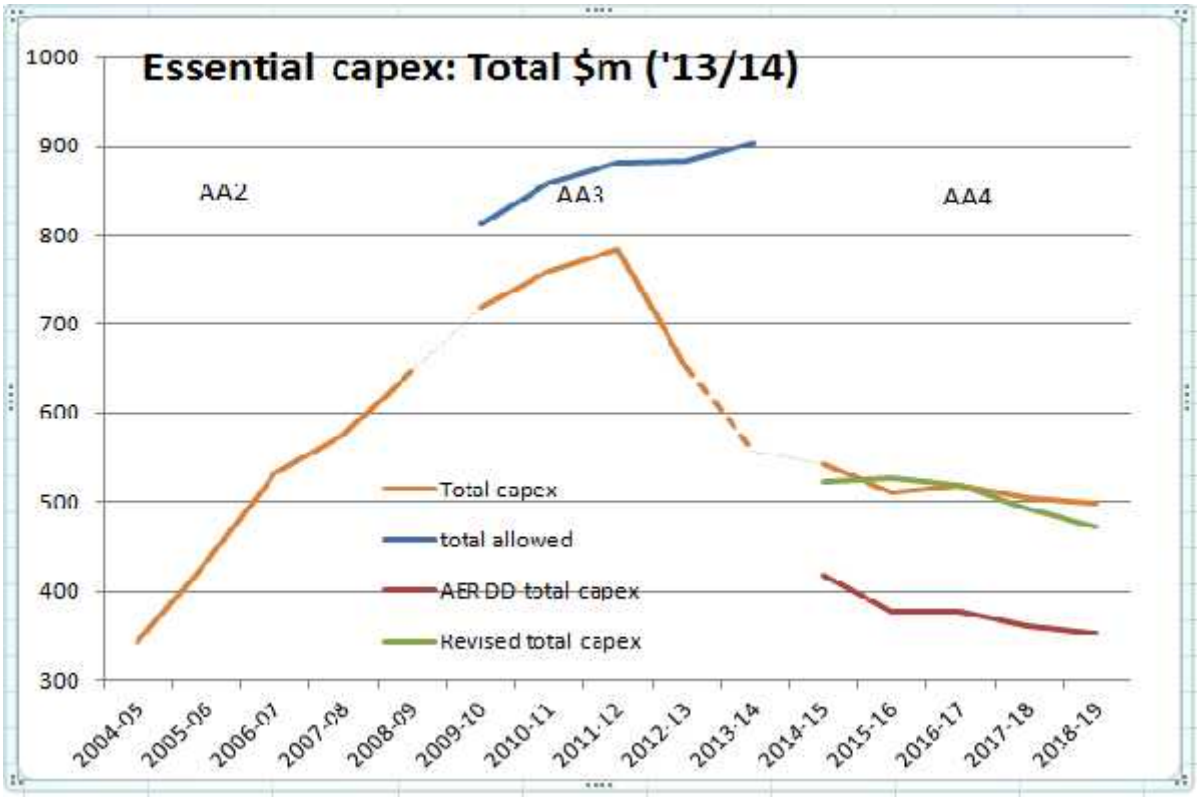
The following charts show the historic performance of the DBs in relation to capex as well as the initial proposals, the revised proposals and the AER draft decisions



Source: Derived by EMRF from Ausgrid proposals and RIN data, AER DD



Source: Derived by EMRF from Endeavour proposals and RIN data, AER FD 2009, AER DD 2014



Source: Derived by EMRF from Essential proposals and RIN data, AER FD 2009, AER DD 2014

The charts all show that the AER draft decision significantly reduces the capex allowances but the revised proposals from the DBs all tend to replicate the initial proposals. The fact that the revised proposals did not make major changes to the forecast capex (especially Essential and to a lesser extent Endeavour) shows that the AER and EMRF concerns have been rejected by the DBs.

In its draft decision the AER commented on the main areas of capex and there is a high degree of similarity of the reasons for AER adjustments between the three DBs.

- The assessment process used by the DBs is based only on a bottom up assessment and by not undertaking a top down review of the outcomes and that past capex performance is less efficient than seen in relation to other networks,
- In relation to augex, the AER observes (as did the EMRF) that there was little need for augmentation capex as the overall demand forecast expected for the next period is lower than forecast by the DBs and there is excess capacity in the networks implying there is little need for more augex. But what is more telling, is that in additional to the high level assessment, the AER undertook a number of other studies (benchmarking, trend analysis, utilization studies, review of forecasting methodology, value of customer reliability - VCR - impacts and a modelling of augex needs based on inputs) that all delivered similar results and contradict the assertions of the DBs from their bottom up assessments
- In relation to repex, the AER assessment addresses repex from a number of different approaches (benchmarking, trend analysis, utilization studies, review of forecasting methodology, VCR impacts and a modelling of repex needs based on inputs) compared to sole bottom up approach used by the DBs. What is a most important feature of the AER approach is that all of the different assessments indicate that a much lower repex is required than what is sought by the DBs, ie all the AER approaches show a similar outcome and therefore are internally consistent. Not only does the AER consider the repex claims exceed historic levels, but the assessments made by the DBs to generate their claims are based on excessively risk averse inputs.
- A common feature of the AER analysis is concern about the conservativeness of the processes used by the DBs to generate their bottom up assessments as the DBs imply a much higher risk profile than actually applies. The engineering assessment made of the DB approaches provides a clear view that the DB bottom up assessments are exceedingly risk averse. This means that the outcomes of the DB analysis requires more capex than is probably required and by using these risk averse techniques,

the DBs have previously provided networks that are widely considered to be "gold plated".

What is extraordinarily obvious is that the AER approach to assessing the capex requirements is so much more detailed and extensive than it has ever undertaken before. The fact that all of its separate assessments deliver a consistent view that the capex claims from the DBs are excessive provides a clear view that the DB approaches using a bottom up approach are quite flawed and result in excessive amounts of unnecessary capex, both for this next period as well as in the past. That all three of the DBs under-ran the capex they were granted in the last period, by a considerable margin, supports this view

In response to the AER draft decision, the DBs all are of the view that the AER is wrong in its assessments and generally the DBs have made only minor reductions, if any, to their capex needs in their revised proposals. The DBs assert that to accept the AER draft decision would result in jeopardizing the DBs ability to maintain safe, reliable and efficient networks. This is the ultimate scare[19] campaign - if we don't get what we want, then the sky will fall.

What is totally absent from their "scare campaign" is any supportive evidence other than their assertions. They overlook the evidence that:

- Their asset utilisation is falling,
- Their performance over time has been maintained and even enhanced with much lower levels of capex,
- Other networks do not need the same level of capex to deliver similar or even better outcomes and
- Consumers are tired of paying ever increasing amounts for the same outcomes.

The DBs have totally overlooked that the rules have changed and the AER now has the tools to be able to challenge the DB bottom up assessments with hard data.

The DBs add

- That a top down assessment should only be used to verify a bottom up assessment. This is arrant nonsense. If a top down assessment reveals significant flaws in the outcome from a bottom up assessment, it is probable

[19] See appendix 2 "NSW warned of power blackouts, supply interruptions"

that the bottom up assessment is wrong. Further, a top down assessment is based on the reality that capital is limited - an issue the DBs seem unable to accept. Capital intensive firms operating in the competitive market use top down assessments to set their capital allowances and use bottom up assessments to prioritize that capital allocation. It is very unusual for a firm in a competitive environment to use more capital than they have available from past activities (ie available from previous profits). In contrast, networks (especially government owned networks) have little regard for the amount of capital they have from past year profits and are content to continue to borrow to satisfy their "wants". A top down assessment limits capex to what the "needs" of the firm are.[20]

- They have strong governance in their development of needs and the costs to address these needs. This is not supported by the facts. If there was such strong governance then there would not have resulted the massive outcry that the DBs were "gold plating" their networks and the massive increases in prices would not have occurred. The fact that NSW Networks CEO Mr Vince Graham has accepted that the DBs are not efficient and actions are in place to improve efficiency shows that the DB assertions are not supported.
- Benchmarking is flawed (see EMRF comments on this issue in section 5 on opex) yet the benchmarking shows clearly that the DBs all exhibit excessive levels of capex compared to their more capex constrained comparators which still deliver the same levels of safety and reliability, and still accommodate the increases in demand occurring.
- Trend analysis is flawed as it is measured over a limited time line compared to the life of the assets. This might be true but reliability of supply is measured over the same time line and with considerably less capex in the past, the DBs delivered similar levels of reliability.
- The approach to assessing the network "health" indicators used by the AER is flawed and the DBs assert they have a better tool for assessing this
- The engineering analysis of the governance structures by the AER consultant is not supported by reviews made by other consultants engaged by the DBs. What the DBs overlook is that the AER engineering consultants are independent and were not seeking to find fault.

While the DBs have all approached the individual assessments made by the AER and attempted to disprove the efficacy of each, they have not addressed the totality of all of the AER indicators showing that the DBs capex proposals (both initial and revised) are significantly overstated. That is, the AER has not relied on

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[20] A top down review is essential to provide the discipline on a firm to ensure that its "needs" are not crowded out by "wants" from operating staff. A bottom up assessment reflects the "wants" and the top down assessment imposes the discipline to limit the "wants" to what the firm is able to provide and stay in business - that is, its "needs".

one approach to reach the conclusion the claims are excessive but has used a suite of different tools to demonstrate that consistently show the lack of efficiency in the DB capex claims

6.1 Augmentation capex (augex)

In their initial proposals all of the DBs provided a view that there was a need for some augmentation of their networks.

The AER analysis examined augex from an input basis (ie increasing demand, increased customer base, changes in planning standards, asset utilisation, risk and governance). This resulted in the AER assessing significant reductions in augex for all three DBs.

The revised allowances for augex from the three DBs all showed different outcomes when applying the rigour of the AER analysis. Ausgrid reduced its augex, Endeavour maintained is augex and Essential increased its augex. Each had different reasons for the changes made to set their revised augex proposals but there was a common theme (especially from Endeavour and Essential) that the AER was wrong in its approach. If the AER assessments, all showing a need to reduce augex, are wrong, then why are there three different outcomes from the three DBs?

What is concerning is that although the AER assessments are consistent and deliver similar outcomes regardless of the methodology used, the outcomes from the DB revised analyses are quite different. That this lack of consistency occurs highlights the inconsistencies embedded in the approaches used by the DBs to develop their augex requirements

6.2 Replacement capex (repex)

In their initial proposals, the DBs sought an increase in replacement capex (repex) compared to actual expenditure in the current period. What is also important to note is that the amount of repex in the period previous to the current period, the DBs used even less repex than in the current period with no loss of network performance. Despite this historical performance, all the DBs sought higher levels of repex for the next period.

The AER draft decision examines the repex proposed in considerable detail and addresses the needs for repex using a number of different tools. All of these tools indicated that less repex will be needed for the next period than had been sought, although the differences in the amount of reduction is quite startling between the

three DBs, where the reduction indicated for Endeavour is considerably less compared to the large reduction indicated for Ausgrid with the Essential reduction lying between the two.

Essential attempts to highlight the inconsistency between the outcomes from the various approaches used by the AER by comparing what the AER assessment for Endeavour is with that for Essential, implying that Essential should have a greater amount of repex than the AER assesses based on what the AER has assessed for Endeavour. Essential's attempts to show the illogical nature of the AER assessments overlooks that the AER assessments are internally consistent.

What is also absent from the DB assessments is a view on how the proposed levels of repex compares in the benchmarking studies and how the outcomes would impact the various network "health" indicators.

In their revised proposals, Ausgrid appears to have reduced its repex considerably whereas Endeavour has reduced its claim marginally and Essential increases its repex when aggregating replacement and reliability capex. However, none of the DBs accept the AER assessments,

The question that remains - which is more correct? The AER with a number of different assessments that return an internally consistent outcome, or the DBs that focus more on proving the errors of the AER than in proving their assessments will produce an outcome that meets the long term interests of consumers. In the absence of external quantitative evidence, the EMRF can only accept that the AER has demonstrated what is a more efficient outcome.

6.3 Other capex

The EMRF considers that the robustness of the AER processes is such that the EMRF has little to add to what it provided in its response to the initial proposals which support the AER assessments and indicate that the DB revised proposals are inefficient.

6.4 Conclusions

What is concerning is that the DBs have focused on "proving" the errors of the AER assessments rather than "proving" by external assessment means that their estimates are more valid than those of the AER. This lack of external quantitative assessment does not assist in demonstrating that the DBs are correct in their assertions and the amount of qualitative "evidence" provided by their consultants

does not offset the independent qualitative assessments by the AER consultant coupled to the studies (benchmarking, trend, etc) carried out by the AER.

It must be remembered that the AER role is not one of providing a view as to what is the lowest possible cost requirement for the DBs (which is what consumers might seek) but is to assess the reasonableness of the claims made by the DBs and ensure that the amounts claimed are efficient and sufficient to ensure that the long term interests of consumers are provided for. Put another way, the DBs have overlooked that the AER is not the "enemy" but is trying to assess what is a reasonable allowance needed to provide an efficient service over the long term.

It must also be noted that the DBs have the ability, if they consider the AER is in error, to spend more on capex than the AER considers is efficient. The risk of this to the DBs is slight as they have the ability to overspend and have the overspend rolled into the RAB after undergoing an ex post review of the capex. Overall, the cost to the DBs of such an approach is low if the DBs can prove that they needed more capex than was considered efficient by the AER.

It also needs to be remembered that, at the last review, the AER gave the DBs effectively what they asked for and the DBs all used considerably less capex than they were allowed and by doing so, garnered a considerable financial benefit. The past performance of the DBs shows that they are more than willing to seek considerably more capex than they need and take as profits the benefits flowing from an over-generous capex allowance.

With the introduction of the capex efficiency scheme (CESS) and the continuation of the STPIS, the DBs have even more incentive to seek more capex than is efficient as this would provide them with a bonus under the CESS and under the STPIS as the DBs improve their network performance.

The EMRF does have a residual (although very small) concern that the benchmarking by the AER might not address all of the drivers that could indicate that the AER allowance is too low as there are always special instances that require more capex than benchmarking, trend analysis, etc might indicate. But the fact that all of the AER assessments lead to the same conclusion and the DBs have not provided independent external evidence that their bottom up assessments are more correct than those of the AER, provides the EMRF with the comfort that the AER is more likely to be correct than the DBs with regard to an efficient capex allowance.

Further, the EMRF also notes that the AER is providing the DBs with "bucket of money" which the DBs are able to use in whatever way they consider will deliver the required services to the performance level required by consumers, so the DBs can direct their funds to where they will achieve the most benefit. The EMRF also

notes that the rules provide a safety net to the DBs if more capex is required than was allowed at a reset.

The EMRF considers that what the AER has done with regard to capex reflects what occurs in the competitive market and the AER should be congratulated for the rigour of its approach on capex

7. Efficiency incentives

The EMRF is very supportive of the combination of the efficiency schemes that apply to opex (EBSS), capex (CESS) and network performance (STPIS) although the EMRF notes that there are aspects of the CESS that the EMRF considers are not as efficient as they could be. Regardless of this concern, the EMRF supports the application of the schemes to the NSW DBs for the 2015-2019 regulatory period.

The EMRF notes that the AER intends not to apply the EBSS to the next period on the basis that the AER draft decision on opex will impose considerable pressure on the DBs to be efficient in their opex. The EMRF accepts that the DBs have a view that they will find it difficult to match the opex allowances as they work to achieve the efficient levels of opex identified by the AER assessments on opex. If it is likely that the DBs will not achieve the opex targets in the early years, the EMRF sees that the DBs would be penalized under an EBSS and this is why the AER has elected not to apply the EBSS for the next period.

While the EMRF sees the logic in the AER decision, it does point out that the removal of the EBSS will undermine the complementary nature of the three efficiency schemes working together so there is no bias in the incentives.

The EMRF sees that the decision to remove the EBSS will provide an incentive to transfer costs so that a reward is generated in the CESS and STPIS as there will be no penalty for overspending on opex. Further, an overspend on opex will provide the DBs with an ability to "prove" that the AER opex allowance was set too low and thereby gain an increase in opex for the period 2020-2025.

The EMRF is also concerned that the AER might allow a "glide path" for opex in its final decision. If this does occur, the EMRF considers that an EBSS must be applied so as to ensure that there is still pressure on the DBs to reach the efficient frontier for opex.

The EMRF also notes that in assessing the EBSS carry over for the next period, the AER has removed certain elements of opex (such as provisions made for employee future benefits) so that the EBSS reflects actual opex rather than notional opex. The EMRF considers this is an appropriate approach as the incentive is to apply to the actual costs a DB incurs rather than how it might have manipulated the allowances for future benefits. The EMRF notes that the allowance for provisions is driven by issues external to the operation of the DB. For example, provisions for a defined benefit superannuation scheme are driven by the stock market and interest rates and not at all by the DB. To provide a reward to the DB for movements in exogenous inputs would be totally contrary to

the intent of the EBSS which is to reward the DB for the actions it takes to reduce costs.

The EMRF considers the AER approach is entirely consistent with the intent of the EBSS and is totally compliant with the NEO. It would be inconsistent with the NEO if the DB was provided a reward for what came exogenously. The arguments provided the DBs that the AER cannot remove the provisions from the EBSS calculation are self serving in the extreme and only provide the DBs protection from exogenous cost movements for the 2015-2019 period because the AER is proposing not to apply the EBSS for this next period. The EMRF notes that by including movements in provisions in the future would expose the DBs to potential large EBSS losses if the financial markets move to require larger provisions to be made in the future.

8. Service standards

The AER proposes that a Service Target Performance Incentive Scheme (STPIS) will apply to AA4 except for the transition year and the DBs accept this but the limit of exposure should be 2.5% of MAR; the AER draft decision accepts this and that SAIDI and SAIFI should be only measured with unplanned outages.

The actual performance of the DBs with regard to reliability was based on a deterministic approach to setting reliability but this deterministic approach has now been relaxed but it must be noted that previous investment was made to meet this standard. The AER has recognised this and made an adjustment to the historic service performance to reflect this change. The EMRF considers that the AER is correct in this regard.

The rates for the incentive proposed by the AER for application of the STPIS are based on the completed review of the Value of Customer Reliability (VCR) recently undertaken by AEMO. The EMRF notes that the VCR review was the most comprehensive undertaken of VCR and is therefore appropriate for use in the STPIS. The EMRF notes that the initial proposals from the DBs used a VCR calculated by AEMC as part of its review of NSW DB reliability standards and this value was nearly 3 times what the AEMO review identified.

The revised proposals object to the use of the average VCR for NSW calculated by AEMO as the mix of customer classes varies between DBs. Whilst the EMRF can understand that using a more representative approach for the VCR for each DB has some appeal, the EMRF also notes that there was considerable variance of VCR assessments within each customer class in the AEMO review. So to attempt to apparently be more accurate in applying customer class VCRs might also result in inconsistencies as well. The EMRF therefore considers that using a statewide VCR is probably as accurate as attempting to use a mix and match approach resulting from identifying numbers of each customer class and developing a VCR specific for each DB.

The EMRF also questions whether this level of apparent accuracy is warranted for the purpose of calculating the incentive rate for each DB.

Overall, the EMRF considers that the AER has addressed the issue of the STPIS in a comprehensive manner which reflects the actualities of what the STPIS is intended to capture and that historically the DBs have overinvested in reliability assets due to the application of the deterministic reliability standards that no longer apply.

9. Pricing methodology

The EMRF notes that the DB pricing has to reflect that under a revenue cap approach, the DBs have to return to consumers the following year any overs/unders that are incurred in a year. This has the potential to result in significant movements in prices year on year. That this can occur concerns the EMRF in that it allows the DBs to use pricing so that there is less cost reflectivity in the prices developed.

It was with this in mind that the EMRF encouraged the AER to seek the DBs to develop their Pricing Structure Statements to be introduced in the near future so that there is transparency in the development of prices by the DBs. That this opportunity has not been taken is a disappointment although the EMRF accepts that the new rules to make this a requirement have yet to be implemented.

The EMRF also notes that Ausgrid transmission charges are to be recovered through TransGrid which is the coordinating TNSP for NSW. The EMRF is quite concerned with this as it means that the TransGrid charges will include the transmission costs incurred by Ausgrid. The upshot of this is that consumers connected to Endeavour's and Essential's networks will be paying a share of the Ausgrid transmission costs even though they do not receive any benefit from the provision of the Ausgrid transmission assets. The EMRF considers that in order to maximise cost reflectivity, the Ausgrid transmission costs should be included in the Ausgrid charges and not recovered as part of TransGrid's charges.

Appendix 1

NSW network boss Vince Graham backs privatisation

AUSTRALIAN FINANCIAL REVIEW 11 FEB 2015

BY WILL GLASGOW

The head of NSW's government-owned electricity distribution businesses, Vince Graham, has endorsed their privatisation and maintained his objection to the Australian Energy Regulator (AER) was not influenced by the $13-odd billion suite of transactions.

"Have no doubt about the independence of what we have put in," Mr Graham, the chief of Networks NSW, said in his first interview since the details of Premier Mike Baird's 99-year leasing of 49 per cent of the state's "poles and wires" electricity businesses were revealed.

Luke Foley's Labor opposition has claimed opposition to the AER's full price cuts was being driven by a desire to make the assets – distribution businesses Ausgrid and Endeavour Energy – more attractive for sale.

Clarifying a statement by Energy Minister Anthony Roberts, a spokesperson for Mr Baird said the government supported the independent AER process.

Mr Graham rejected claims he had been influenced in his submission by any member of the Baird government.

"At no stage have we sought approval from government," he said.

The price determination by the Australian Energy Regulator – a regulatory body attached to the ACCC that determines the revenue of energy businesses – has become a heated political issue in NSW.

The decision will impact on the proposed privatisation – the centrepiece of the campaign – and the price of energy bills, a perennial election issue. The final decision by the regulator will be made on May 1 – seven weeks after the election.

If it is re-elected and can secure passage through the upper house – which opinion polls suggest it will– the Baird government will lease 50.4 per cent of Ausgrid and 50.4 per cent in Endeavour Energy, and all of high-voltage-electricity transmission business TransGrid, for 99 years.

Mr Graham said he supported price cuts and pointed to his record since he was put in charge of the state's three electricity businesses in 2012. Networks NSW's counter-proposal will keep electricity prices below inflation for the next five years.

He said his criticism with the AER turned on its "flawed" economic modelling and lack of consideration on safety.

Australian Energy Regulator chairman Paula Conboy said the regulator was considering the counter-proposals. Final submissions are due on Friday. "Our minds are open," she said.

Last week, Victorian power company AusNet Services was ordered to pay $260.9 million to victims of the Black Saturday bushfires. Clearing vegetation to avoid bushfires accounts for about 20 per cent of the businesses operational expenditure.

Wages in the heavily unionised utility account for another 60 per cent.

Mr Graham said while he agreed with the AER that electricity businesses in NSW were grossly inefficient, he said the draft determination would require 4600 job losses this year. The Networks NSW counter-proposal would cut 2200 job gradually across the three businesses by 2019.

Mr Graham said there was no financial incentive for him were the government to be successful with its privatisation.

He said after working for 46 years in the public service he had no doubt the businesses would operate more efficiently as private businesses, despite claims by NSW Labor to the contrary.

"I have never observed a situation where the public sector can replicate the efficiency of the private sector," he said.

The Australian Financial Review

See
http://www.afr.com/p/national/nsw_network_boss_vince_graham_backs_1uhTeV4vy09nHmXjPtIeMJ

Appendix 2

NSW warned of power blackouts, supply interruptions

Sydney Morning Herald, January 22, 2015

Brian Robins

In a pointer to the forthcoming Victorian regulatory reset for electricity network owners, NSW households and businesses have raised the threat of power blackouts and supply interruptions if power network companies are forced to cut their spending.

The NSW government-owned power network companies said any reduction in outlays would affect directly the safety of both the public and its workers. They were responding to an earlier draft decision by the industry regulator, the Australian Energy Regulator, that calls for deep spending cuts.

The AER said Ausgrid should slash revenues to $8.8 billion for the five years to 2018/9, which is well short of the $12.2 billion sought by Ausgrid. Similar cuts would be imposed on the other power distributors, Essential Energy and Endeavour Energy.

In response, Ausgrid has outlined a reduction in outlays of just $226.3 million over the five year period.

"The reductions proposed by the AER would likely lead to substantial underinvestment by Ausgrid in both capital and operating expenditure, and would compromise the safety, the reliability and the ongoing sustainability of its network," Ausgrid chief executive Vince Graham told the regulator.

At the heart of the AER's push to force the NSW power companies to slash outlays is a so-called "benchmarking" review, which has found the efficiency of the government-owned companies in NSW compares poorly with their counterparts in other states, such as Victoria.

But Ausgrid has called the AER's benchmarking model "flawed" saying that the planned spending cuts would result in it not being able to maintain a "safe and reliable" electricity network.

"The AER's draft decision is based on assumptions, modelling and processes that are critically flawed," Mr Graham said, since it would "require immediate job cuts of 4,600 employees or 37 per cent of the workforce across these three networks" companies.

Canberra's power network operator, ActewAGL, also slammed the benchmarking approach as "inconsistent with international best practice" saying it relied upon "immature data".

"The AER's proposed operating expenditure allowance is the same as our operating expenditure was 15 years ago. We cannot fathom how the AER can expect the business to deliver reliable and secure electricity services when there has been a considerable increase in scale since then," ActewAGL chief executive Michael Costello said.

The proposed spending cuts would lower prices for consumers in the short run but would "lead to higher costs over the long term", he said.

Even with interest rates at long term lows, with little prospect of an upswing anytime soon, Ausgrid also rejected the regulator's proposed rate of return of 7.15 per cent, arguing that the figure should be set much higher, at 8.85 per cent.

Given their large level of borrowings, this assumption has a significant impact on power prices. Ausgrid's revised application is higher than its application which sought a rate of 8.83 per cent.

See http://www.smh.com.au/business/the-economy/nsw-warned-of-power-blackouts-supply-interruptions-20150122-12vkpu.html#ixzz3PyUlWM82

Appendix 3

Rio Tinto stops hiring in bid to cut costs

Date February 11, 2015 - 2:01PM

Amanda Saunders

Rio Tinto has slapped a hiring freeze on its iron ore workforce and warned of a "degree of urgency" to quickly achieve deep cost cuts. ANZ has also taken the knife to its iron ore price forecasts.

Rio iron ore boss Andrew Harding sent a memo to staff this month detailing how aggressive cost cuts would be executed across the division, and stressed the importance of the miner maintaining its mantle as the lowest-cost producer in the Pilbara.

"The scenario for 2015 and beyond reinforces the absolute need for us to maintain our position as the lowest-cost producer, particularly when compared with other Pilbara producers," Mr Harding wrote in the note sent to staff last week.

"To maintain favourable cash cost earnings, we must substantially and quickly decrease our operating costs. We also cannot let go of tonnes, both new and incremental."

The cost-cutting story at Rio is not new. Mr Harding's hard line on costs follows hot on the heels of a warning from Rio chief executive Sam Walsh to all staff in January, in which he flagged further cost-cutting.

But Mr Harding's latest memo sheds some light on exactly how Rio will continue to make deep cuts, ahead of the release of its full-year results on Thursday.

Rio has initiated an immediate hiring freeze and review of organisational structures, and will renegotiate significant service and supply contracts.

The miner will run "cost-outs and capital reductions that are significantly below the existing plan", and "reflect market conditions for employee and labour-related costs", Mr Harding wrote.

He said there was a "degree of urgency" to act.

On Wednesday ANZ downgraded its 2015 iron ore price forecast by 24 per cent to $US58 a tonne and its 2016 figure by 30 per cent to $US60 a tonne.

"The drop to more realistic price levels has come quicker than expected, with high-cost Chinese swing supply remaining open," ANZ commodities analyst Mark Pervan said.

He is the latest in the string of analysts to axe forecasts for the commodity this year.

Mr Harding also said that "to better isolate some of the pinch points in the business" he will start running quarterly reviews with superintendents at all sites.

Rio will also "revamp the way it schedules maintenance – by intervals and task times – and significantly reduce warehouse and stockpile inventories".

See: http://www.smh.com.au/business/mining-and-resources/rio-tinto-stops-hiring-in-bid-to-cut-costs-20150211-13bl2w.html#ixzz3RUkOFBTf