



Australian Energy Regulator

NSW Electricity Distribution Revenue Reset

EnergyAustralia, Country Energy and Integral Energy Applications

A response

by

The Energy Markets Reform Forum

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Executive Summary

The Energy Markets Reform Forum (EMRF) welcomes the opportunity to provide comments on the AER's review of the NSW electricity distribution businesses (DBs).

The NSE electricity DBs are seeking very large ambit claims for capital and operating expenses. The claims from EnergyAustralia are the most prominent.

The EMRF identifies many constraints that will prevent the DBs from implementing the very large capital expenditure proposals and points to the need for the AER and its consultants to rigorously assess each capital proposal. The EMRF expects that investments made will be economically efficient and that the DBs are operating as prudent businesses in terms of the National Electricity Law Objective.

However despite such rigour in examination, the EMRF notes that there is no requirement in the Rules (under the ex ante capex approach) to require the DBs to implement any of the projects they identify and use to support their request for capex. The EMRF sees this as an added driver on the AER to examine the capex programs holistically rather than just as a series of individual programs.

The EMRF has applied a simple statistical technique to assess the reasonableness of the DBs capital and operational expenditure. The EMRF test demonstrates that the claims are not fully justified.

The AER must:-

- Apply a rigorous risk analysis for each capital project, with a view to the deferment of capital expenditure programs
- Assess the cost escalators claimed in the capital (and operational) expenditure allowances sought
- Apply rigorous tests to ensure that used and useful assets are retained in service and not replaced unnecessarily
- Require the DBs to incorporate a financial tool into their asset management programs to identify when it is commercially sensible to replace an asset, rather than use physical asset management alone
- Require that the DB pricing methodologies result in costs being applied to those customers that cause the increased costs in the services
- Aggregate all of the DB claims for demand and consumption against test these for consistency and reasonableness against the values used by NEMMCo and TransGrid as the basis for setting generation adequacy and forecast transmission expectation

1. Introduction

1.1. The Energy Markets Reform Forum (EMRF)

The Energy Markets Reform Forum (EMRF) is a forum representing large energy consumers in New South Wales. The EMRF is an affiliate of the Major Energy Users Inc (MEU), which comprises some 30 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland. EMRF member companies – from the steel, aluminium, paper and pulp and the mining explosives industries – are major manufacturers in the State and are significant employers, especially in many regional centres.

The EMRF welcomes the opportunity to provide comments on the applications to the AER for a review of the revenue allowances for the four electricity distribution businesses (DBs) located in NSW and the ACT – ActewAGL (AGL) in ACT, Country Energy (CE) in country NSW, EnergyAustralia (EA) in Sydney/Newcastle and Integral Energy (IE) in Sydney/Wollongong.

Analysis of the electricity usage by the members of EMRF shows that in aggregate they consume a significant proportion of the electricity generated in NSW. As such, they are highly dependent on the transmission network to deliver efficiently the electricity so essential to their operations. Many of the members, being regionally based in NSW, are heavily dependent on local suppliers of hardware and services, and also have an obligation to represent the views of these local suppliers. With this in mind, the members of the EMRF require their views to not only represent the views of large energy users, but also those of smaller power using facilities, and even at the residences used by their workforces.

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

Although electricity is an essential source of energy required by each member company in order to maintain operations, a failure in the supply of electricity (or gas) effectively will cause every business affected to cease production, and members' experiences are no different. Thus the **reliable supply** of electricity (and gas) is an essential element of each member's business operations.

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the distribution businesses, because they control the quality of electricity and gas delivered. Variation of electricity voltage (especially voltage sags,

momentary interruptions, and transients) and gas pressure by even small amounts now has the ability to shut down critical elements of many production processes. Thus member companies have become increasingly more dependent on the quality of electricity and gas services supplied.

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

Accordingly, EMRF (and its affiliate MEU) are keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

The members of EMRF have identified that transmission plays a pivotal role in the electricity market. This role encompasses the ability of consumers to identify the optimum location for investment of its facilities, and providing the facility for generators to also locate where they can provide the lowest cost for electricity generation. Equally, consumers recognise that the cost of providing the transmission system is not an insignificant element of the total cost of delivered electricity, and due consideration must be given to ensure there is a balance between the two competing elements.

1.2 The scope of this review

EMRF recognises that the AER is required to carry out its review in accordance with the recent release of the new Chapter 6 of the Electricity Rules and the associated transition Rules for NSW and ACT. These new Rules and transitions (being based on the new AEMC developed transmission Rules, need to be seen as being pro investment, as the AEMC stated that this was the focus of its Rule development. Equally consumers have assessed the new Rules (both transmission and distribution) to be biased and unbalanced. The EMRF notes that the AER is quite heavily constrained in its ability to exercise an holistic view of the final revenue that is determined as the outcome of this review.

It is noted that the determination of the regulatory asset base is quite closely proscribed, the inputs to the CAPM used to develop the WACC are predetermined, the degree to which the AER can determine any exclusion of future actual capital expenditure is limited, and the AER must allow the regulated businesses extensive freedom in determining the amount of depreciation to be included in the revenue.

By excluding these elements from detailed independent analysis this revenue reset is limited to a review, on the allowances for capex and opex,

the standards of service expected from the review, and the degree to which DNSPs are to have incentives to perform more efficiently.

In principle, these Rule changes result in a reduced scope for the exercise of independent regulatory judgment by the AER and the determination of outcomes from the review based more on a mechanical process.

There is, however, an element of the MCE changes to Chapter 6A which requires the AER to be more heavily involved in – this is the development of the ultimate tariffs and their pricing structure which will result in the AER having more involvement than in previous distribution reset reviews. The EMRF (and MEU) has had significant involvement in this aspect of the MCE’s pricing methodologies Rules determination and views on this element will be presented later in this submission.

1.3 An overview of the DB capex applications

It is quite clear that the DBs have all taken to heart the fact that the new Rules are to encourage investment. Across the board capex demands are massively inflated from the current period, as is opex. Against this backdrop, there is a very modest increase in consumption, and a slightly higher forecast increase in demand.

For this massive increase in revenue, consumers are expected to pay considerably more and receive if anything a lower service. The regulatory bargain has undergone a major shift in favour of the DBs. What is totally missing from the applications is an assessment of value for money.

	Step increase in average charge	Annual increase thereafter
ActewAGL	20.4%	2%
Country Energy	23.1%	6.8%
EnergyAustralia Transm	8.4%	15.8%
EnergyAustralia Distrib	29.4%	10.43
Integral Energy	18.2%	3.5%

Source: DB applications

The programs proposed by the DBs show a massive increase in the average tariffs from those set by IPART and ICRC. Overall, the step change increase is in excess of 20% and the annual increase thereafter average nearly 10%. This presents a fundamental issue to consumers and the AER. Consumers are expected to pay very large increases both as a step change and then annually thereafter, yet they receive virtually no improvement in service.

The EMRF considers there is essentially an inconsistent proposition being propounded by the DBs. Either IPART and ICRC were badly incorrect in the setting of the revenues for the DBs under the Electricity Code in 1999 and again in 2004, or the DBs are using the new Electricity Rules to attempt to convince the AER that they are entitled to such large step increases now and high annual increases thereafter. The EMRF considers that the claims by the DBs are clearly ambit and need very rigorous pruning.

The main issue for the AER (other than the bottom up assessment of the DB applications) is to develop a holistic view of whether the claims being made are valid and whether consumers will be able to pay for the hikes in revenue. It is not merely an issue of agreeing that these monopolies can just continue to increase their charges on the basis that consumers have no alternatives. Electricity supply is an essential service and it is simply insufficient to continually allow increases in the costs of essential services until parts of the community can no longer afford to pay. At one end of the scale economically disadvantaged consumers will either suffer or have to be directly assisted by government. At the other end of the scale, businesses will no longer be able to afford the charges and will either close or move offshore. Either way the costs will still remain and have to be carried by fewer consumers, further increasing unit prices.

Another major consideration that the AER must make, is whether the capital investment being proposed can be managed effectively in a national environment where, due to decisions being made by private entities and regulators, there is now a well recognised issue of capability across the nation to carryout the large volume of investments with limited resources of labour, plant and materials.

In this regard the AER should assess not so much that there may be a need for the capex claimed by the DBs, but whether the implementation of all these capital projects is essential **to be implemented now** and can it be accepted that to carryout such an enhanced program when resources are scarce (and therefore more expensive) that such commitments can be considered economically efficient. As the National Electricity Law objective requires the AER to ensure regulated businesses are permitted to allow only "...efficient investment in, and use of, electricity services ...", the AER must take into account whether deferral of some of the proposed investments is economically efficient. The second reading speech for the NEL makes it very clear that reference to efficiency in the objective must be considered in economic terms

"The market objective is an economic concept and should be interpreted as such. For example, investment in and use of electricity services will be efficient when services are supplied in the long run at

least cost, resources including infrastructure are used to deliver the greatest possible benefit...”¹

The DBs all provide reasons for needing their large capex programs but there is no attempt to demonstrate whether the implementation of these programs in the time frames proposed by the DBs at a time of scarce resources is efficient in economic terms.

In a number of aspects the DBs point to the changes in the NSW government requirements for reliability as a reason to increase their capex and opex claims. The EMRF is concerned that supplies of power are reliable and sustainable, but we also recognise that it is not essential that all reliability capex programs must be implemented immediately, and that deferring some work is feasible. There is a need to balance the costs of improving this reliability at a time when costs are high, with the deferral of the work to times when resources (and hence costs) are more available.

In fact the DBs provide information which attempts to demonstrate that the costs for the capex program are well above long term price indices, and this is used to justify the higher than expected capex program. This then raises a fundamental question – would a prudent investor build now, or would the prudent investor defer investing at a time when costs are higher than normal.

It is quite clear that the prudent investor would defer investing if costs are likely to fall, and if the market it sought to benefit from would remain. As monopolies, each of the DBs does not need to time its investments to meet an expected change in the market, as deferral will not deprive it of increased demand for its products nor of the entry of competitors. Regardless of whether the investment is to be made now or at some time in the future, the sales for the DBs will be essentially the same.

Thus in the environment the DBs operate in, there is no market imperative to invest immediately, but there is a requirement under the NEL, that investments must be efficient. Careful analysis is required to ensure that investment is not being made when the imperative to do so is low, and where deferment would lead to lower (and therefore more efficient) costs.

1.4 An overview of the DB opex applications

The introduction of the incentive to reduce opex for Victorian electricity DBs was introduced in 2000. IPART also attempted to incentivise the DBs to operate at efficient levels of opex. The purpose behind this approach was to identify the level of efficient operating expense so that this level could be used from which analysis of step changes could be made so that opex continued to be efficient.

¹ SA House of Assembly 9 February 2005, Hansard page 1452

What we are seeing is a new growth industry to convince the regulator that opex must be consistently increased at each regulatory review. Despite the growth in consumption and demand being less than inflation (as measured by the consumer price index) each of the DBs has applied for large step changes in opex, against little sustainable reasons provided for the large step change.

In the Victorian EDPR of 2005 the regulator (ESCV) implemented a very structured approach to step changes and required each DB to cost in detail the impacts of the various step changes they had identified to warrant an increase in opex. The ESCV denied a number of the step changes claimed as it considered there was no step change warranted. The ESCV went further and challenged the amounts claimed for each sustainable step change.

Unfortunately, the NSW DBs have not been required to prove their claims with similar rigour, and certainly with less justification. The AER must redress this.

1.4 The EMRF'S General View

The EMRF is supportive of the requirement for reliable security and quality of supply of electricity and is not opposed to network augmentations and additions, provided the investments are **efficient** and they are implemented by a **prudent** network business.

Against that background, it is instructive to refer to the Minister's Second Reading Speech (on the National Electricity Law):

"...the national electricity market objective in the new National Electricity law is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity, and the safety, reliability and security of the national electricity system. The market objective is an economic concept and should be interpreted as such. For example, **investment in and use of electricity services will be efficient when services are supplied in the long run at least cost**, resources including infrastructure are used to deliver the greatest possible benefit and there is innovation and investment in response to changes in consumer needs and productive opportunities. **The long term interest of consumers of electricity requires the economic welfare of consumers, over the long term, to be maximized.** If the National Electricity Market is efficient in an economic sense the long term economic interests of consumers in respect of price, quality, reliability, safety and security of electricity services will be maximized" (emphasis added).

To permit expenditure (or allow recovery of actual costs or of costs never were incurred such as indexation adjustments) that is inefficient or unnecessary, or for costs previously charged to consumers as expenses of a business, could not be described as supplying services at least cost or maximizing the welfare of consumers.

The EMRF would expect the AER to have regard to the ability of the NSW Electricity Distribution businesses, (which, in combination with TransGrid) are proposing some \$18 billion in capex for this regulatory period to implement its significantly large capital program against the background of:

- Supply constraints in the industries supplying equipment and materials
- constraints in the supply of skilled labour.

These constraints are being imposed by:

- over \$30 billion in new power generation assets reported to be required over the next 5 or so years in the National Electricity Market
- some \$3.8 billion in new capex already approved by the AER at regulatory resets for SP Ausnet, ElectraNet and Powerlink, and to this needs to be added the ambit claims from TransGrid and Transend of another \$3.3 billion. In this regard the AER should be aware that there has been a consistent growth in capex allowed by jurisdictional regulators for distribution as well, since regulation commenced.
- over \$10 billion in new capex that has been sought by electricity network businesses in Victoria, Queensland and SA in this regulatory cycle, to which needs to be added the capex ambit claims from NSW distribution businesses. In addition to this amount is an expectation of additional capex resulting from the decision to allow the inclusion of contingent projects as well as the agreed ante capex amounts allowed for in regulatory decisions

The overwhelming challenge for the NSW Electricity Distribution Network businesses (and TransGrid) is to ensure that the investments (in capex) are **efficient** (i.e. “in the long run at least cost”) and that they are being undertaken by a **prudent** network business.

Indeed the AER has a very important challenge, from the perspective of consumers. Against the background and foreground of very significant infrastructure spending, both world-wide and domestically over the next few years – and this is clearly identified by the DBs as a cause of their increased costs for both capex and opex due to equipment and skilled labour shortages and the concomitant escalation in asset and labour costs – the AER (and its consultants) have a professional obligation to rigorously test their capex and opex claims, as well as assess the scope for capital deferment into the next regulatory period. It is clearly economically inefficient

to incur costs which could be reasonably deferred to a less expensive time, when there is less pressure on the availability of materials and labour.

Businesses in a competitive environment make judgments on investment based on such requirements as need for the investment, ability to deliver a project on time and to budget, cost (including short term supply pressures), ability of customers to absorb cost increases, the ability to defer the investment and the risks associated with deferral. Unfortunately gaining regulatory approvals for capital expenditure has been observed to be quite easily obtained, with greater emphasis given to the stated wants of the business rather than the imposition of strong development of capital controls. In this regard it is to be noted that one of the reasons given by regulated businesses for needing to invest more capital now, is that under previous government ownership and control, the businesses were starved of capital, due to the competing needs within the government budgets. Another construction that could be applied is that governments (just as do businesses in the competitive environment) applied very strict requirements on capital expenditure.

As can be seen from the regulatory decisions made since governments handed over the responsibility of providing the necessary discipline on monopolies to jurisdictional and national regulators, the obtaining of approval to incur capital expenditure (based on a requirement for consumers to pay) there has been an explosion of new capital works undertaken. This clearly identifies that regulators are not applying the same level of discipline on regulated electricity providers as was applied by governments themselves.

As the Rules clearly show that the DBs must provide economically efficient investment, the AER should require them to demonstrate why there is a need to provide a large capital expenditure program and to provide a risk analysis which balances the risks of deferral against the risks of excessive capital cost resulting from unnecessarily early investment at a higher cost.

In this regard, the AER should recognise that if they allow the DBs to invest capital at a time where there are high costs of implementation, the impact of such potentially unnecessary costs will be felt by consumers for the next half century, long after the regulators are in their dotage. The EMRF accepts that it is the Rules that reduces the risks of inappropriate investment, as future regulators are not permitted to reopen costs previously incurred, as was the case before when regulators were allowed to optimise previous decisions. It was this ability to optimise in the future, that applied some pressure on the regulated businesses to only implement investment when it was absolutely necessary.

In the absence of this discipline, it is now a requirement on the regulator to ensure that economically inefficient investment is not undertaken. The AER

can achieve this by limiting capex allowances, and by ensuring that only needed capex is permitted, and deferring capex that can be deferred with minimal impact on the reliability of the system.

1.5 Summary

It is concerning that regulatory price reviews are losing sight of the basic fact that if the regulator keeps on allowing increases in capex and opex, the prices the networks will charge for providing an essential service will take the cost of electricity beyond the capacity to pay by competitive industry and many consumers (especially disadvantaged consumers).

We are already seeing price pressures on power from generators using market power to increase the price of generation well above the cost of making power, we are seeing power prices being increased to allow for the MRET and NGAC schemes, not to mention the emissions trading scheme.

The jurisdictional regulators have permitted large increases in its recent distribution revenue reviews and if a similar approach is taken in relation to these DB applications, the essential service that is electricity supply in this day and age, will become unavailable to many consumers and cause manufacturing to migrate off shore.

The regulators need to recognise that as more and more large power users either move off shore or close down, this will result in those fewer consumers remaining having to carry an even greater share of the electricity supply chain prices.

2. Total Ex-Ante Capital Allowance

The EMRF has already commented on the constraints facing the DBs in implementing their capex proposals and has asked that the AER and its consultants would need to examine the projects carefully in the light of a range of identified factors, including the scope for regulatory gaming.

Notwithstanding the close attention the AER might impose on the capex programs, the EMRF notes that there is no requirement in the Rules (under the ex ante capex approach) to require the DBs to implement any of the projects they identify and use to support their request for capex. We see this as an added driver on the AER to examine the capex programs holistically rather than just as a series of individual programs.

The EMRF acknowledges that there is a reducing load factor in the networks, driven predominantly by the growth and penetration of residential air conditioning. The increasing demand resulting from this trend is not matched by the same increase in consumption, and as a result load factor is reducing. The outworkings of this reducing load factor is a need to increase capex to match the change in demand rather than in consumption. This means that costs are related to consumption. However, it also requires the DBs and the AER to ensure that the costs for matching this increase in capex are properly recovered from those causing the need.

The DBs (and TransGrid) have sought to provide justifications for the significant increase in capex proposals as being due to:

- Growth, especially peak demand growth
- Reliability obligations, as part of licence conditions
- Asset renewal, as a result of ageing asset profiles.

On the surface, there would appear to be considerable scope for capital deferment or smoothing in the third area above (i.e. asset renewal) through targeted maintenance programs. One or two NSW electricity businesses have identified some capital smoothing in this area, and the AER should develop a set of principles to guide its assessments of assets renewal that could be deferred into another regulatory period. However, there is also scope for capex avoidance in the first two areas above (i.e. growth and reliability obligation). Here the AER and its consultants would need to rigorously test the capex proposals submitted. For example, after many years of not meeting licence obligations for service performance obligations (as publicly admitted by the CEO of a NSW distribution business at the AER Public Forum on 30 July, why is it absolutely necessary for such obligations to now suddenly become sacrosanct?

In the EMRF's view, the AER has another important challenge in assessing capex proposals. As a result of the biased and unbalanced AEMC Chapter

6A Rules determination, there is so much scope for network businesses to game the regulatory, so much so that they could, metaphorically but literally, drive a truck through the AER's approved capex program. Under the Rules (which are very similar to those applying to the distribution element of the Rules):

- The capex program requires formal demonstration of need only for a small component of the network business's program – i.e. for augmentation programs greater in value than \$10 million (the Regulatory Test)
- There is no ex post review allowed of capex to ensure prudence or efficiency
- Once set, the network business can use the capex allowance for any project and need not use it for any project used to justify the allowance in the first instance
- If a network business decides, it can defer any capex project used as the basis of its approved capex program, and keep the financial benefit
- The AER must include in the asset base all capex incurred without assessing whether the amounts should be included, even if the network business incurs an unnecessary over-run in costs (which is very likely in this current regulatory cycle of significant infrastructural investments and as the Rules permit the network business to maintain a cost-plus culture).
- Capex projects identified as contingent projects at a reset, can be added to the allowed revenue after a reset, and the costs passed on to consumers, even if the original capex allowance has not been used
- A network business is able to obtain an increase in revenue allowances by converting a capex program to network support, yet retain the full financial benefit associated with the replaced capex allowance.

The risks to consumers arising from the Rules are significant, as the AER's discretion is limited. The risks are not only that capex programs would be so inflated by the incentives determined by the AEMC Rules, but also the Regulatory Asset Base would be inflated by regulatory gaming. The risks that the expected explosion in capex and the RAB would extend beyond the forthcoming regulatory period are very real and very significant. Against this background, the AER and its consultants would need to rigorously examine ex-ante capex and contingent capex projects with the view to limiting the scope for gaming to inflate the capex program and RAB over the next two regulatory periods.

As all businesses know, it is relatively easy to justify capex from a bottom up assessment. What is more difficult is to ensure that the capex claimed is justifiable from a market perspective. The DBs provide data which shows that the market indicators (consumption and demand) are not escalating at a rate that justifies the massive injection of capital that is being claimed. In a competitive environment, the directors of a business would require

proponents of a capital expenditure program to demonstrate one of the following

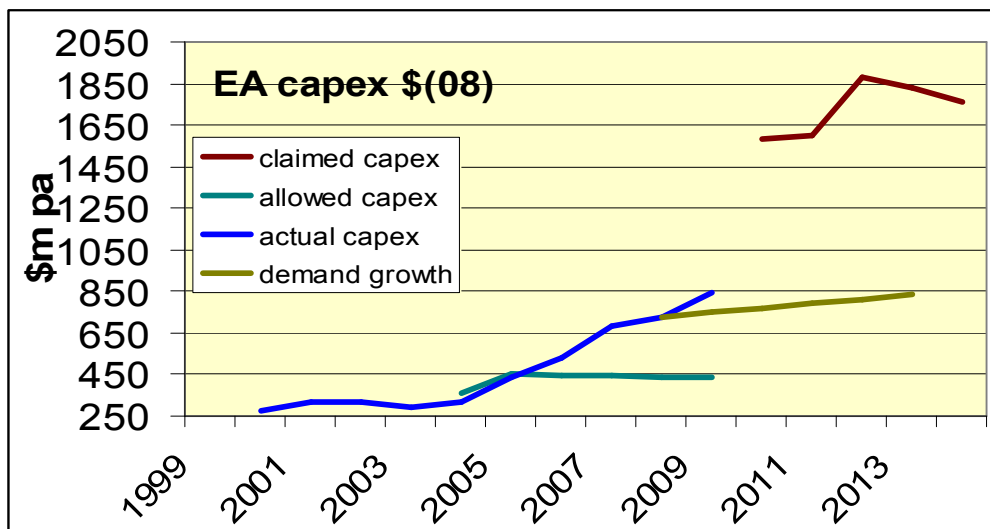
- there is an increase in demand in the market justifying the capital project so as to meet the expected increases of customer demand (in this case the market is not providing this support)
- the injection of the capital will increase market share (in this case the DBs are monopolies and holds 100% of market share, regardless)
- The injection of capital will maintain the current level of market share (in this case there is a need for some capital to maintain the reliability of the existing assets).

In the following analyses of each DB capex proposal, EMRF shows a trend based on the 07/08 actual capex, extrapolated by the forecast growth in demand. The EMRF does not necessarily consider that this approach is accurate, but provides an indication only. In fact, EMRF considers that the growth in demand for capex is not an unreasonable basis for extrapolation of capex needs.

2.2 EnergyAustralia

The EA application shows that the total forecast capital expenditure is some \$8.66 billion for the next regulatory period. Some 29% of this is due to augmentations (\$2.5 billion), 12% in delivering operational efficiency (\$1.02 billion), and 42% for replacement (\$3.6 billion) projects.

The following chart shows the historic capex and the new claim for capex. EA points out that nearly a third of its capex is a result of demand growth. The chart shows how the last recorded actual capex (for 07/08) would change if the increase in demand was the only criterion for setting capex.



Sources: IPART decision 2004, EA application

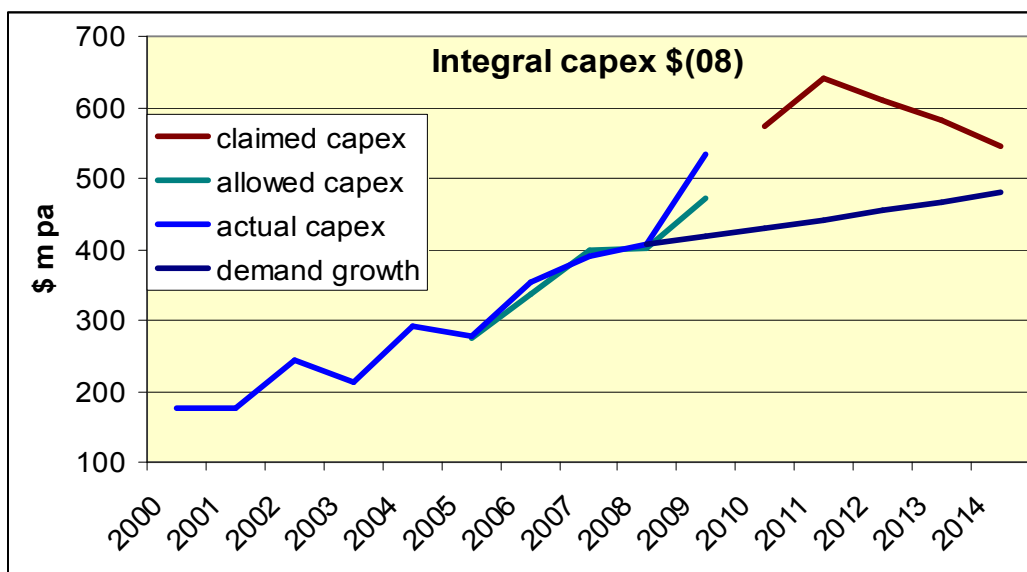
The EA application shows a massive increase in capex, far outstripping demand, and seems to indicate that it is seeking an additional \$800m pa (or a total of \$4 billion overall) in excess of needs. The EA claim is totally inconsistent with conventionally accepted criteria for a step change, and at most should be some \$4-5 billion for the period. The excess claimed is ~50% of the claimed capex.

The EMRF has a real concern that EA is using its capex program as a method of dramatically increasing its profitability, which as noted above, is a “gaming” approach implicit in the building block method. The EMRF considers that the AER has a great responsibility to ensure that capex claims for augmentation and replacement (which constitutes some \$6.1 billion over the next five years) can be justified in terms of ability to implement in the current economic climate and represents a reasonable assessment in terms of fundamentals underpinning a sensible capex program.

2.3 Integral Energy

The Integral application shows that the total forecast capital expenditure is some \$2.95 billion for the next regulatory period. Some 45% of this is due to augmentations (\$1.35 billion), 13% in delivering environmental (\$0.4 billion), and 26% for replacement (\$0.78 billion) projects.

The following chart shows the historic capex and the new claim for capex. IE implies that nearly a half of its capex is a result of demand growth. The chart shows how the last recorded actual capex (for 07/08) would change if the increase in demand was the only criterion for setting capex.



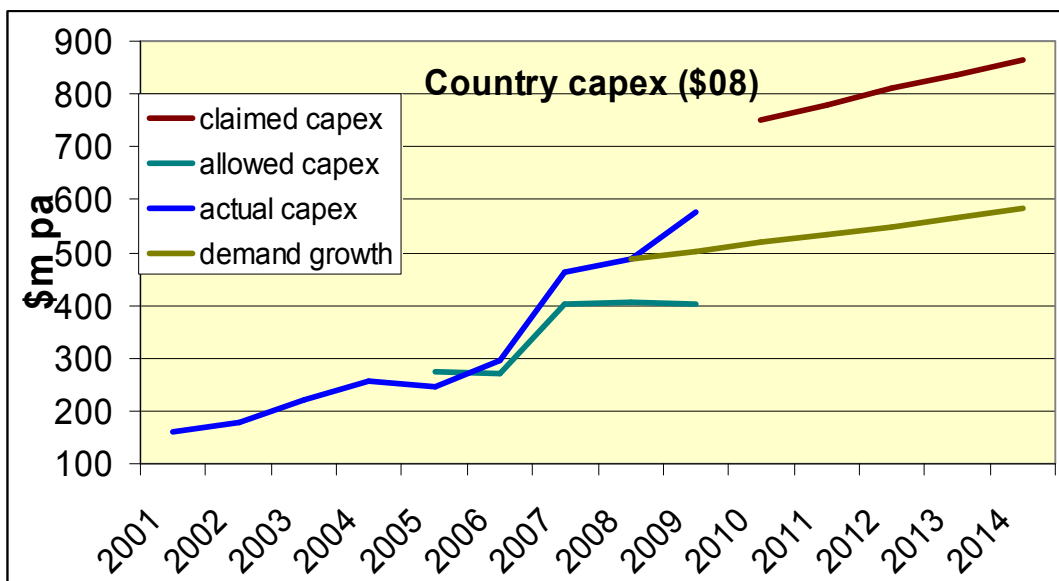
Sources: IPART decision 2004, IE application

Whilst not as blatant a grab for capex as that by EA, Integral seems to be seeking capex well in excess of its historic trend, and not in keeping with its need for a step change, or indeed, the growth in demand. This excess is perhaps 10% of the claimed capex.

2.4 Country Energy

The CE application shows that the total forecast capital expenditure is some \$4.04 billion for the next regulatory period. Some 35% of this is due to augmentations (\$1.43 billion), 22% in delivering reliability and service enhancement (\$0.91 billion), and 20% for replacement (\$0.81 billion) projects. Another \$0.53 billion (13%) is for IT and motor vehicles.

The following chart shows the historic capex and the new claim for capex. CE implies that nearly a third of its capex is a result of demand growth. The chart shows how the last recorded actual capex (for 07/08) would change if the increase in demand was the only criterion for setting capex.



Sources: CE application

CE has consistently expended an increasing amount of capex over the past decade, and whilst this tended to match growth in demand in the earlier years, it is now far in excess of the growth demand trend.

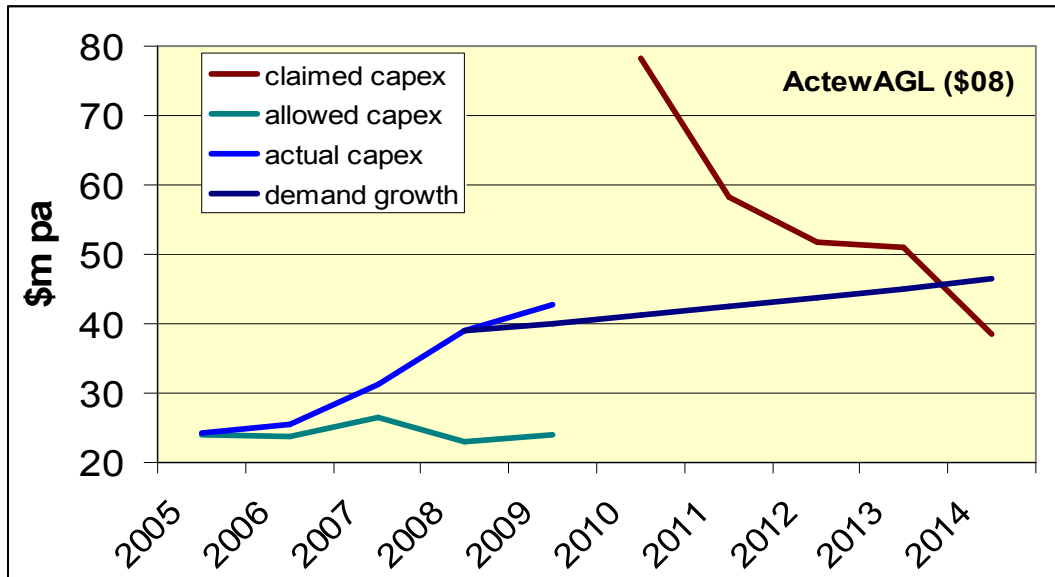
The trend indicates that overall CE capex is some \$250m pa (or \$1.3 billion overall) in excess of needs. This excess is ~30% of the claimed capex.

2.5 ActewAGL

The Actew application shows that the total forecast capital expenditure is some \$277 m for the next regulatory period. Some 51% of this is due to

augmentations (\$141m) and 36% for replacement (\$98.6m) projects. Another \$20.5m (7%) is for IT.

The following chart shows the historic capex and the new claim for capex. CE implies that nearly a third of its capex is a result of demand growth. The chart shows how the last recorded actual capex (for 07/08) would change if the increase in demand was the only criterion for setting capex.



Sources: ActewAGL application

Actew has consistently expended an increasing amount of capex over the past period, and whilst there tended to be a loose relation to increase in demand, the claimed capex is far in excess of the growth demand trend.

The trend indicates that overall CE capex is some \$10m pa (or \$50m overall) in excess of needs. This excess is 20% of the claimed capex.

2.6 Capex overall

The DBs have provided a list of new capital projects, and a justification of each. What has not been done is a risk assessment of the likely downside if the work is delayed. Such an analysis requires a series of estimates of the risk for increasing periods of delay. Until such an assessment is made and the risks analysed, the AER cannot approve any of the capex programs. The AER needs to put itself in the role of the directors of the business to ensure that the capex has been assessed properly in terms of the market impact.

It has been stated that this is a role for the actual directors of the business. This is not so. Once the regulator has given approval for a capital project, the directors of the business know they are assured of receiving a

guaranteed return on the investment. This takes away from the directors of the business any of the risk for authorizing the capital expenditure.

The EMRF members very clearly understand the risks involved in authorizing capital projects – every member has this responsibility on a continuing basis. If the risk of achieving the forecast outcome is covered by a guaranteed return (bearing in mind that there is now no risk of future optimisation) the directors of the business have little risk in authorizing approval for a capital project. Thus the AER must accept that it has effectively the responsibility of ensuring that a capital project (both in terms of value and timing) is economically efficient. The AER has not been provided with adequate risk analysis to undertake this task.

This point is further developed in section 4.2 of this submission.

However, unless the AER carries out such a risk analysis, it will be not done. The jurisdiction has abrogated this role and the DBs do not need to carry out the role, leaving the responsibility entirely with the AER, who has the responsibility also of ensuring the revenue allowed is economically efficient.

The EMRF strongly recommends that the AER seek from the DBs a detailed risk analysis for each capital project, including an assessment for delays in implementation. With this data, the AER can assess whether it is absolutely necessary to be carried out during an acknowledged high cost period or could be deferred with little risk until a time when costs for its implementation are likely to be lower.

2.7 Wages growth

Much of the capex budget is in relation to construction cost, which is driven by construction wages and materials costs. The DBs provide a view that capex should be inflated to allow for the movement in construction wages due to the need to allow future projects to remain within budget.. In fact, there is an argument that construction wages are falling relative to average wages (or to put it alternatively, that average wages are catching up construction wages).

In its report last year to the AER², Econtech points out that over the previous period the wages nationally in selected industries have moved (on average) in the following way

² Econtech Pty Ltd, Labour Costs Growth Forecasts, report prepared for the Australian Energy Regulator
13 August 2007

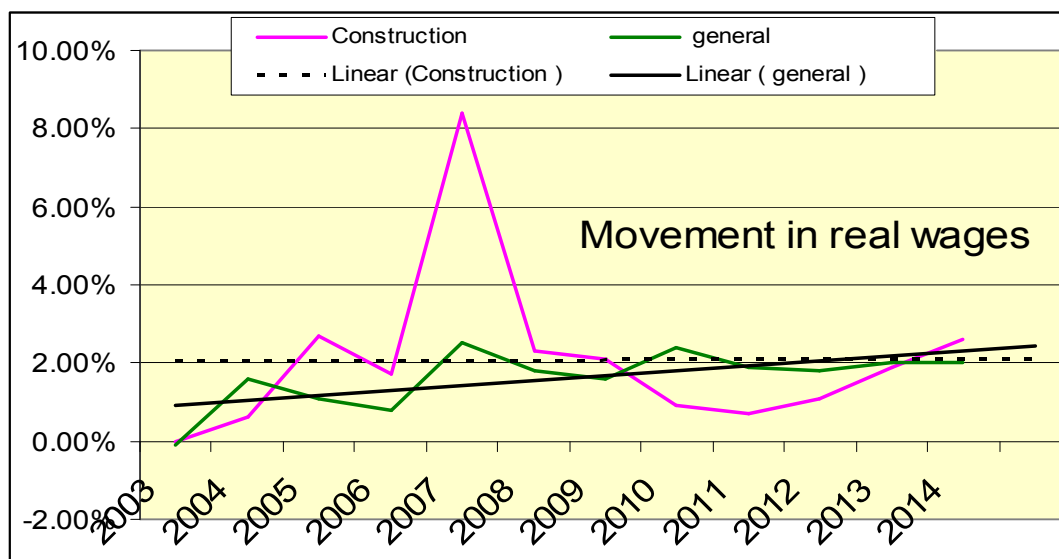
Table 6.3 (b)
Average Real Wage Growth in Australia (%)

	Mining	Electricity, Gas & Water	Construction	All industries
1986-1996	1.1	0.5	0.3	-0.3
1996-2006	1.7	2.9	1.0	1.7
2008-2014	1.1	3.7	2.1	2.6
2006-2016	1.1	3.2	2.1	2.2

Source: LCM

This data implies that the labour cost growth in the construction sector was less than the average labour cost growth in all industries by some 70 basis points for the period 1996 to 2006 – the same period for which the DBs have been corporatized. Econtech opines that for the next six years construction wages growth will less than the average by 50 basis points, a slightly lower discount than experienced in the previous ten years.

CEG³ provides forecast data (Table 26: Summary of escalation factors (year ended June) for wages growth which can be shown graphically as follows.



Source: CEG table 26

This clearly shows that labour costs in the construction industry are falling in comparison to the average across all industries. As can be seen in section 3.2 below, average wages growth has remained reasonably static for the past decade. The current DB capex programs have been carried out in a period where construction wages growth has been at a premium to average

³ TransGrid application appendix F, Escalation factors affecting expenditure forecasts A report for NSW Electricity Businesses April 2008

wages, but the forecasts by CEG imply that this premium will be quickly eroded, implying a lower cost in the future.

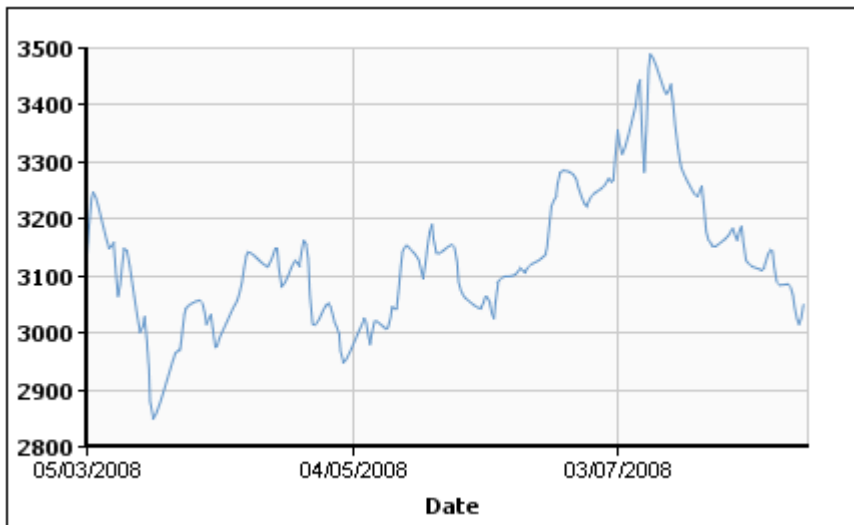
This provides clear evidence that there is no need at all to increase the allowance for capex to reflect rising construction wages growth.

2.8 Material cost growth

CEG provides a view that the increases in the costs of materials are likely to further increase in real terms from now (the time at which the DBs costed their capex programs. As a result there is an implication that the capex allowance needs to be inflated to allow future projects to remain within budget.

However timing is all important in forecasting movements; the following charts show the movement of key materials ex LME since the report by CEG.

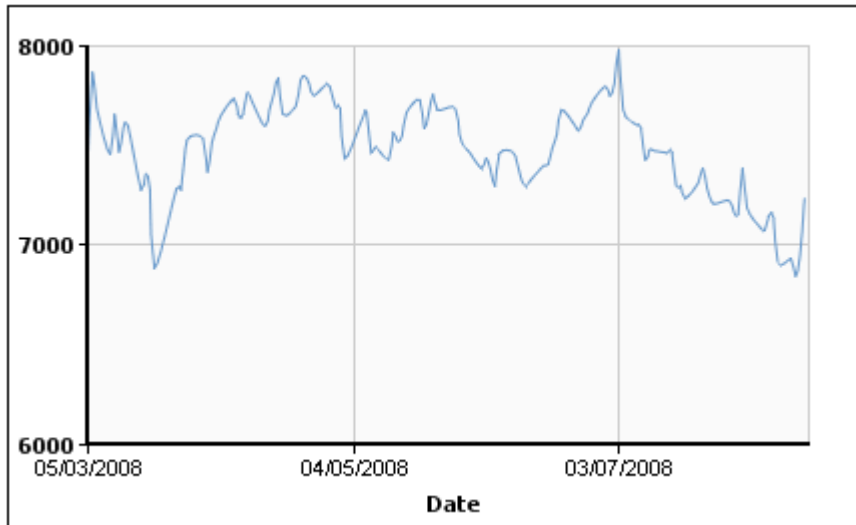
Aluminium, in \$US/tonne, shows a >5% fall in the last five months for 27 month forward buying



Source: LME website

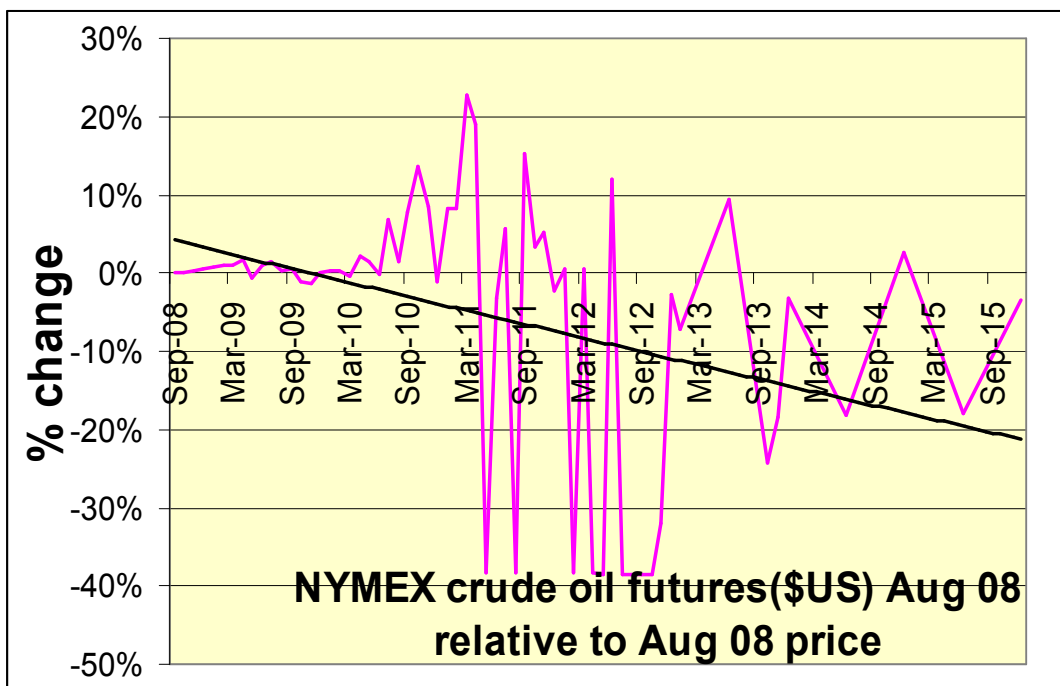
Copper, in \$US/tonne, shows a >10% fall in the last five months for 27 month forward buying

,



Source: LME

Future crude oil price shows a static view overall with some volatility. The price of crude oil has risen to \$US115/barrel since March 2008 when it was \$95/barrel but the futures market implies after this step change, prices are trending down although there are some seasonal variations.



Source: Nymex

Whilst the new data does indicate that in some ways input prices could increase, they also show that some input costs are reducing.

2.9 Early retirement of assets

Depreciation is the allowance included in accounts to reflect the need to recover capital invested so that at the end of the life of the asset, the asset has no value in the financial accounts. The implication is that at the end of the life of an asset, the investment initially made is recovered in full, and that the business then has to invest in new equipment in order to continue its operations.

In a competitive environment, the price of an article produced is based on the short run marginal cost of production. The import of this is that the price used for sale does not recover the long run marginal cost, which includes for the depreciation of the assets used to create the product. It has been observed by many businesses that their recovery of depreciation is usually less than the actual investment made, and that this observation is predicated on the nominal value of depreciation as used by the ATO. In a regulated environment the “real” value of depreciation is incorporated into the building block, increasing the costs to consumers.

Bearing in mind that competition does not appear to allow businesses to in fact recover depreciation (either nominal or real values) the AER must be particularly aware of the potential to game the depreciation of regulated assets.

Consumers have noted that with a WACC higher than what the market as a whole achieves, there is a commercial driver for a regulated business to physically dispose of “written off” assets before their technical life may be over. This driver is unique to the building block approach to revenue setting in that a fully depreciated asset does not attract any return (WACC times zero is zero), whereas replacing a written off asset does attract a return. As opex is recovered at cost under the building block, the profits for a regulated business come only from the return on assets. In a competitive business, having written off an asset is seen as a positive if the asset is still used and useful as the costs for production are lower.

In the past, MEU and EMRF members have seen electricity supply authorities continue to use assets long after the asset has been written off financially, so the technical life of many assets is really longer than the average time used to financially depreciate the assets in the building block approach. Physical life of an asset is related to many more aspects than just time. Assets lightly used and well maintained will generally be useful longer than the expected asset life. The care used in manufacturing and the basic design parameters also greatly impact on asset longevity. One MEU members cites the example of where equipment built in the 1930s and an expected life of some 40 years, was still being used early in this decade.

EMRF has a deep concern that assets still used and useful will be taken from service by DNSPs as the DNSPs no longer get any return for them, and replaced with new assets on which they do get a return. This provides an incentive to replace assets regardless of their continued usefulness, with consumers bearing the costs for early replacement.

The EMRF seeks advice from AER as to how the AER can ensure that used and useful assets are retained in service and not replaced unnecessarily.

2.10 When should assets be replaced?

As the new Rules permit DNSPs to introduce their own depreciation schedules, it is appropriate for the AER to implement some controls on the use of this freedom. When this freedom is combined with a WACC which incentivises new investments, it becomes essential that the AER addresses the controls on rates of depreciation.

As the ability of DNSPs to secure new sources of funds has been seen not to be a major issue, competitive businesses tend to have more challenges in raising new sources of funds. Because of this, competitive businesses consider that there has to be a strong financial justification to inject capital rather than continue to have higher opex. The approaches used to substantiate capital expenditure vary between companies but to justify capex, the opex savings must recover the capital required usually within 1½-3 years.

It is of concern to consumers that DNSPs do not use a financial model to justify replacement, relying more on time based approach supported by physical asset management approaches, such as condition monitoring. The EMRF agrees that physical asset management must be a standard tool for identifying when an asset requires replacement, but we also believe that such asset management must include for a financial tool to address the commercial need for asset replacement.

The AER should require the DBs to incorporate a financial tool into their asset management programs to identify when it is commercially sensible to replace an asset, rather than use physical asset management alone.

3. Forecast Operating Expenditure

The EMRF considers that, with such a significant increase in capex projects, the DBs (especially EA) should be required to provide much larger efficiency savings in:

- Capex/opex trade-offs (i.e. larger opex savings)
- Larger productivity savings than the 2% applied by the ACCC in the current regulatory period (new and more capital assets)
- Savings from maintenance programs no longer required on replaced assets.

However, what is seen is a large step increase in opex as well as the large capex claim. It is alleged that all of the augmentation projects would result in increased opex, but opex only increases in the capex is for new “greenfields” augmentation. Increasing the size of existing hardware merely constitutes similar opex for new but larger assets.

There is an expectation, driven by the observation from past performance of the DBs (and indeed that of other electricity businesses) that opex is relatively independent of both demand and consumption changes. That all the DBs claim a massive trend upwards in opex needs appears to be counter intuitive with historic actual performances. That this is the case is clearly demonstrated by the approach used by the ESCoV in its decision on the Victorian electricity distribution businesses in their analysis included in the draft and final decision in the 2005 Electricity distribution price review.

Comparisons of actual opex compared to allowed opex for the vast majority of regulatory decisions shows a typical trend of actual opex in the early years of the period showing a discount to the allowed opex. With the approach of a new reset, the opex seems almost magically to increase and the forecast for the final year shows a need in excess of the regulator’s allowance. The purpose of such a trend is clear – making savings in the early periods, allows the DB to retain all of the savings without risk of losing them in a new reset. Ramping up opex in the latter years provides the DB with the basis of an argument to claim a higher allowance in the new reset.

The introduction of the EBSS is intended to provide an incentive to reduce opex, but by the AER declaring that it will use the fourth year opex as the basis for the new period, still retains the incentive on the DB to follow the historic approach so obvious in previous regulatory reviews.

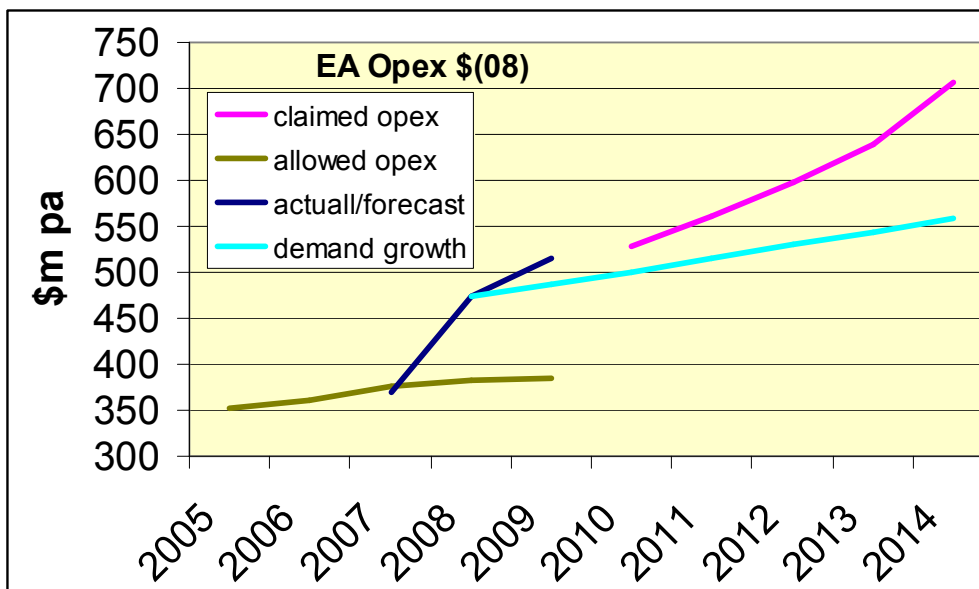
In the following analyses of each DB’s capex proposal, the EMRF shows a trend based on the 07/08 actual opex, extrapolated by the forecast growth in demand. The EMRF does not necessarily consider that this approach is accurate, but provides an indication only. In fact EMRF considers that the

growth in demand for opex will provide a significant overstatement of opex needs, as opex tends to be independent of demand growth.

3.1 EnergyAustralia

The following chart shows the historic IPART allowed and actual opex, along with the claimed controllable opex. It is unfortunate that EA does not provide its opex in earlier years. However, comparisons made with all of the other DBs indicates that opex in the earlier years, show a discount to the allowance granted by the regulators.

Included in the chart is the 07/08 actual opex extrapolated using the growth in demand expected.



Sources: ACCC and IPART decisions 2004, EA application

The EMRF is very concerned with the accuracy of the EA actual opex for 07/08. The previous year the opex was some \$370m yet it rose by \$104m the following year, an increase of some 30%. This indicates there is an error, EA is playing games or EA is not able to manage its business in a sensible manner. The amount shown for 08/09 year has been disregarded as it is merely an estimate.

The EA application shows a very high start value for opex compared to the IPART allowance which should not be expected to be in error by over 30%. Even if such a high start value is accepted, EA compounds this high start value with a further overstatement of opex claim averaging some \$70m pa premium.

It is impossible to accept that IPART was so wrong for its estimate for 07/08 (an error of some \$90m), when for the other two DBs the IPART

assessment so closely matches the amounts of opex actually used. Equally, it is hard to accept that EA is so demonstrably incompetent.

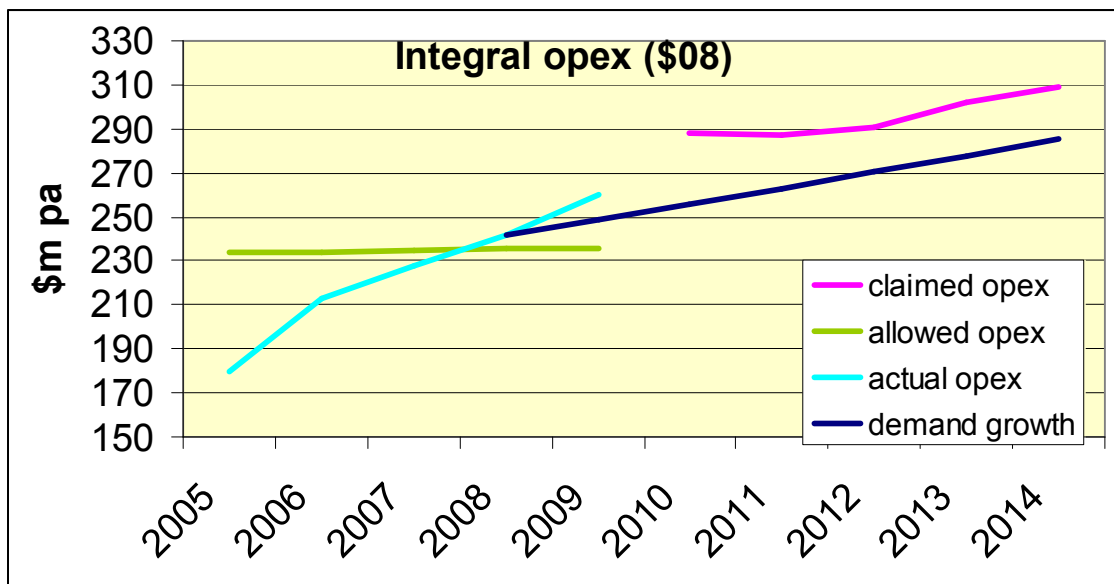
The EA claim is totally inconsistent with conventionally accepted criteria for a step change. Further, the EA claims for increased opex do not bear scrutiny when the points considered by EMRF later in this section are considered.

The EMRF has a real concern that EA is attempting to game the system, the new Rules and the guidelines established by the AER.

The EMRF considers that the AER has a great responsibility to ensure that the EA opex claims be fully justified and detailed, and that the AER insists on (and gains) supporting evidence of sensible reasons for allowing step changes which prove the need for opex above the IPART estimate.

3.2 Integral Energy

The following chart shows the historic IPART allowed and actual opex, along with the claimed controllable opex. Included in the chart is the 07/08 actual opex extrapolated using the growth in demand expected.



Sources: IPART decision 2004, IE application

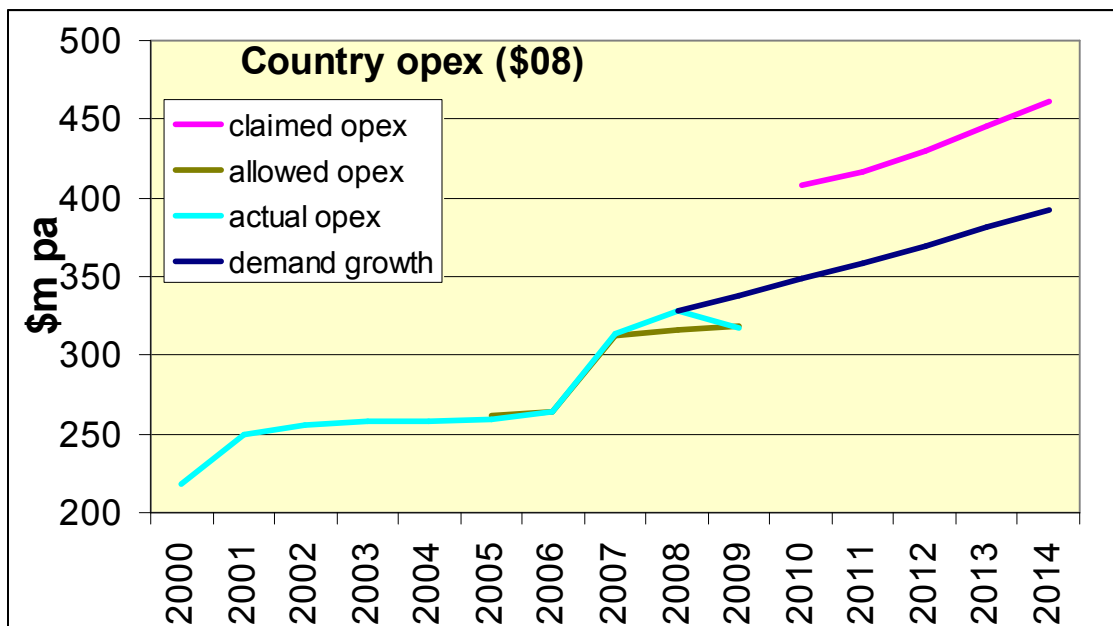
Whilst not as blatant a grab for opex as that by EA, Integral seems to be seeking opex well in excess of its historic trend, and its application is not in keeping with its need to prove there has been a step change, or indeed, the just matching the growth in demand.

IE seems to have claimed an opex premium above the growth in demand of some \$110m (or \$22m pa). This excess is perhaps 10% above the historic opex trend based on demand and, at the very least, should be denied.

The EMRF considers that the AER has a great responsibility to ensure that the EA opex claims be fully justified and detailed, and that the AER insists on (and gains) supporting evidence of sensible reasons for allowing step changes which prove the need for opex above the IPART estimate which IE actual opex nearly matched.

3.3 Country Energy

The following chart shows the historic IPART allowed and actual opex, along with the claimed controllable opex. Included in the chart is the 07/08 actual opex extrapolated using the growth in demand expected.



Sources: CE application

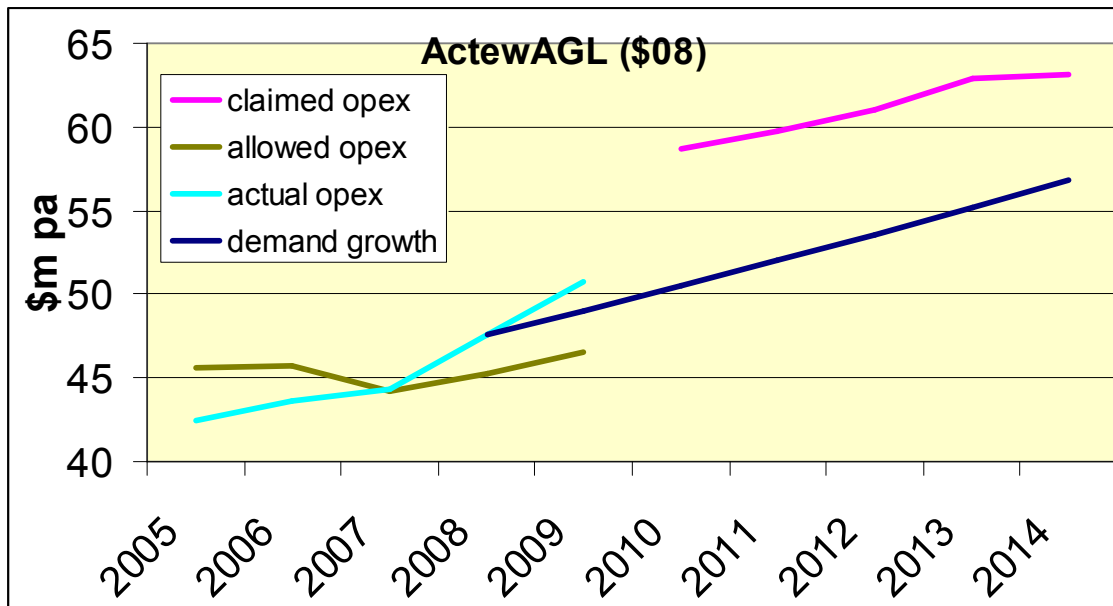
After matching the IPART allowed opex for the current period CE seems to be seeking opex well in excess of its historic trend, and which is not in keeping with its need to prove there has been a step change, or indeed, even matching the growth in demand.

CE seems to have claimed an opex premium above the growth in demand of some \$250m (or \$50m pa). This excess is well over 15% above the historic opex trend based on demand and, at the very least, should be denied.

The EMRF considers that the AER has a great responsibility to ensure that the EA opex claims be fully justified and detailed, and that the AER insists on (and gains) supporting evidence of sensible reasons for allowing step changes which prove the need for opex above the IPART estimate which CE actual opex nearly matched.

3.4 ActewAGL

The following chart shows the historic ICRC allowed and actual opex, along with the claimed controllable opex. Included in the chart is the 07/08 actual opex extrapolated using the growth in demand expected.



Sources: ActewAGL application

Actew seems to be seeking opex well in excess of its historic trend, and this is not in keeping with its need to prove there has been a real step change, or indeed, a need to match the growth in demand.

Actew seems to have claimed an opex premium above the growth in demand of some \$40m (or \$8m pa). This excess is nearly 20% above the historic opex trend based on demand growth and this, at the very least, should be denied.

The EMRF considers that the AER has a great responsibility to ensure that the Actew opex claims be fully justified and detailed, and that the AER insists on (and gains) supporting evidence of sensible reasons for allowing step changes which prove the need for opex above the ICRC allowance that Actew actual opex nearly matched.

3.5 The relationship between capex and opex

As noted above, there is a relationship between capex and opex. With the increase in capex for refurbishment, there must be a proportionate reduction in opex, as this is what justifies the replacement of old assets with new assets. Notwithstanding this inverse relationship, the DBs propose to increase their opex from current levels, although it is noted there is a modest (very modest) reduction offered in opex to reflect previous capex.

Where there is growth in a network there is an expectation that there would be additional opex attributable for new capex, but where capex is about replacing old assets with new, or replacing old with something new but larger, there is no justification for added opex.

The AER must recognise the inter-relationship between capex and opex as far as the DB applications are concerned. It is a fundamental matter for any business that much of its capex causes a reduction in opex. The other reason for capex is to match increasing demand for products.

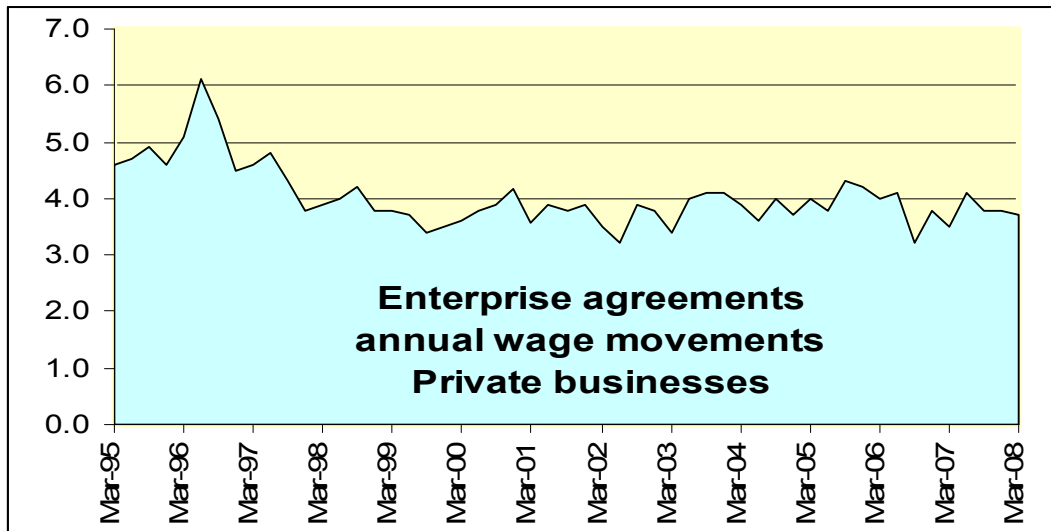
The DBs have stated that the capex has increased in part due to higher prices. If this is the case then the commercial relationship between capex and opex becomes even more important. If the cost to replace the assets increases, then from a consumer viewpoint it is more economically efficient for the opex to be maintained rather than pay a higher cost as a result of new assets replacing old (*ceteris paribus*).

In section 2 above it is pointed out that there is an economic driver for DNSPs to replace assets rather than continue with incurring opex. It is the building block approach which provides this driver, as opex is recovered at cost whereas assets achieve a return which provides the profits for the regulated business.

The AER must ensure that the capex used does result in opex being proportionately reduced.

3.6 Forecasts of higher costs

The DBs have been guided in the development of their applications by the recent AER decisions for SP Ausnet in Victoria and ElectraNet in SA, that opex costs have shown a massive upward forecast trend in recent times. As Major Energy Users affiliates involved in those reviews pointed out in their submissions the actuality of the growth trends proposed to the AER had little justification. That this is the case recent labour growth rates show there is little change in average private business wage growth over the past decade



Source: RBA, table G7

This shows that average wage growth in Australia has been relatively static since the start of the current decade.

In its report last year to the AER⁴, Econtech points out that over the previous period the wages nationally in selected industries have moved (on average in the following way

Table 6.3 (b)
Average Real Wage Growth in Australia (%)

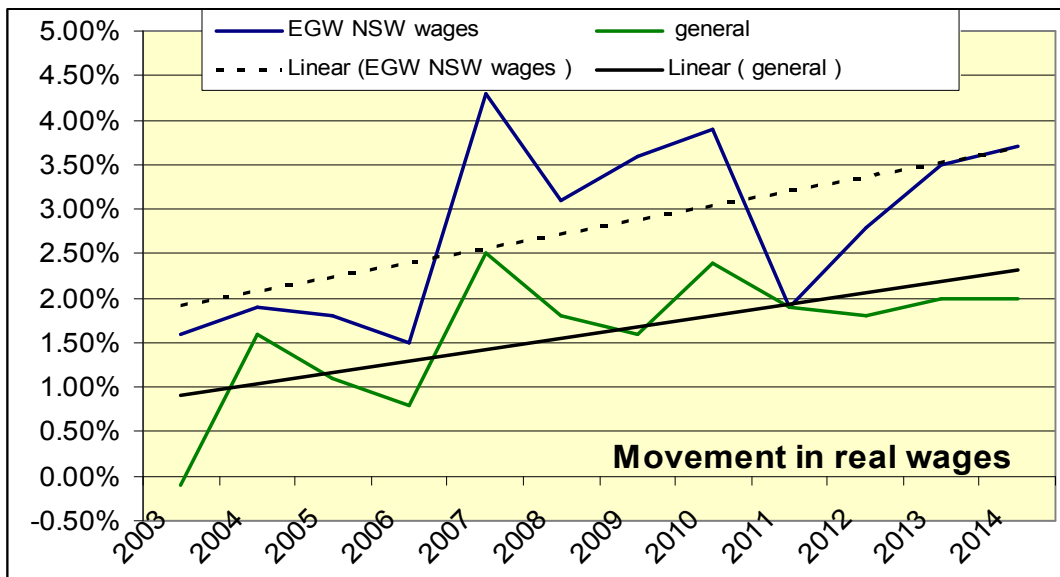
	Mining	Electricity, Gas & Water	Construction	All industries
1986-1996	1.1	0.5	0.3	-0.3
1996-2006	1.7	2.9	1.0	1.7
2008-2014	1.1	3.7	2.1	2.6
2006-2016	1.1	3.2	2.1	2.2

Source: LCM

This data implies that the labour cost growth in the EGW exceeded average labour cost growth in all industries by some 120 basis points for the period 1996 to 2006 – the same period for which the DBs have been corporatized. Econtech opines that for the next six years EGW wages growth will exceed the average by 110 basis points, a slightly lower premium than experienced in the previous ten years.

CEG⁵ provides forecast data (Table 26: Summary of escalation factors (year ended June)) for wages growth which can be shown graphically as follows.

⁴ Econtech Pty Ltd, Labour Costs Growth Forecasts, report prepared for the Australian Energy Regulator 13 August 2007



Source: CEG table 26

The importance of this graph is that compared to average growth in real wages, EGW only maintains the differential between these two indicators that has applied for the previous decade. As can be seen from the DBs own opex trends, they have tended to maintain opex at or about the allowances granted by IPART during the latter part of the period of time for which Econtech observes that the differential between EGW and average wages was 120 basis points.

The clear import of this data is that the DBs have been experiencing a premium of wages growth over average wage growth equivalent to that forecast by CEG, but in the current regulatory period, and despite this premium have been able to constrain their operating expenditures at the same time.

This clearly implies that there is no basis to allow any premium for expected wages growth over the coming period, as there is no step change between the current period and the next period, in respect to wages growth.

⁵ TransGrid application appendix F, Escalation factors affecting expenditure forecasts A report for NSW Electricity Businesses April 2008

4. Service Performance Targets

4.1 Overview

There have been no incentives set for the DBs to improve their service performance and the EMRF notes the AER decision not to implement such an approach with the current reset. The argument given by the AER is that there have been insufficient records on which to set meaningful targets. In its submissions to the AER guidelines, the EMRF strongly disagreed with the AER approach in this regard.

The EMRF is very concerned that it will be in the middle of next decade, some 20 years since the NSW DBs were corporatized, by the time the DBs are exposed to a meaningful service performance incentive program. This is not in the long term interests of consumers.

4.2 An observation of jurisdictional involvement

It is noted that the NSW government has set some reliability and performance standards for the DBs. It is easy for a jurisdiction to set very high performance standards in the secure knowledge that it will not be held to account for the costs of achieving the outcomes of its directions.

What has been absent in setting performance standards is a risk analysis, and a comparison of the risks against the costs involved.

In South Australia the Electricity Supply Industry Planning Council (an independent body established by the SA government) states in regard to the ElectraNet review undertaken by the AER in 2007,

“LIMITATIONS ON THE PLANNING COUNCIL’S REVIEW

The work of the Planning Council has focussed on only part of the capital investment program in ElectraNet’s revenue proposal. The review has covered the investment in major projects associated with network augmentation to reliably meet future demand. It is important to note that in reviewing the capital program, the Planning Council has not assessed, nor is it in a position to assess, the appropriateness of the quantum of costs associated with each project. The Planning Council understands that the cost estimates used by ElectraNet will be the subject of review by the AER’s consultants.”

This indicates that independent jurisdictional groups do not (and are probably not in the position to) analyse the costs of achieving a proposed performance standard and therefore cannot balance the risks associated with a capital project either not being implemented or deferred, and the impact of the jurisdictional performance standards set.

5. Cost of capital

The EMRF is aware that the new Rules quite heavily proscribe the ability of the AER to modify the inputs needed to develop the WACC.

Very recent moves in the financial markets indicate that much of the hype relating to the high cost of debt is quite possibly overstated. The evidence of this has been the excess profits generated by the main banks despite their contentions that the cost of money had significantly increased due to the “sub prime” issue in the US and to a lesser extent in Europe. That the Australian banks have so easily managed the world sub prime crisis and still managed to increase their profitability implies that the Australian financial market is in better shape than they would have consumers and government believe.

The EMRF therefore expects the AER to carefully assess those few aspects where it has discretion, to ensure that it recognises the essential fact that the financial market is robust and not be misled by the DBs that sourcing the capital they need will be more expensive than it really is.

In earlier sections the EMRF has indicated that it is concerned at the very large capital demand the NSW electricity businesses are seeking to impose on consumers. It has been noted that previous decisions of the AER have already created a climate where significant amounts of capital are needed to meet approved capex programs. If the NSW capex program as detailed is overlaid on the current programs, there will be a strain on the financial markets.

Increasing pressure on the capital market will increase the cost of debt and equity. The AER has the ability to set the WACC at levels which might encourage the DBs (and TransGrid) to provide some constraint of their own as the cost of money might be higher than the AER allows.

The EMRF has a concern that the AER, in identifying there could well be a need to increase the WACC to allow the DBs to source the capital they need, will allow the CAPM inputs to be set higher than they otherwise would. The EMRF considers this would not be in the long term interests of consumers, and views that extending the capital program over a longer term might be a better option for consumers, as it could be more economically efficient to do so.

6. Demand and consumption forecasts

As the AER sets a price cap for the distribution businesses (rather than a revenue cap as used for transmission businesses) the setting of the demand forecasts becomes a critical element of the review. As the key determinant for setting the price cap is consumption (kWh) there is potential for the distribution businesses to manipulate the forecasts in two basic ways.

The first and most obvious way of gaming consumption is by understating the expected increases in consumption entirely. Using this lower figure in the denominator of the calculation, overstates the amount of funds raised on a unit basis.

The second way of gaming using the forecast of consumption is by front end loading the forecast growth over the period. Whilst the average growth for the period may be the same, front end loading allows the businesses to recover cash earlier and therefore provides a greater net present value of the cash flow to the business. The effect of this earlier cash flow allows the business to earn a return on the funds over-recovered.

Careful analysis of the forecasts is required to assess whether the DBs are using one or both of these techniques to secure an improved position to increase their revenues without having to physically do anything.

Overstating demand growth and new customer numbers give support to increases in capex and opex. However, neither growth in demand averages nor new customer numbers support the requested increases in capex.

Thus the EMRF would strongly support the AER in securing independent assessments for forecast growth on which to base the price caps after it determines the appropriate revenue stream for each business.

The EMRF does not have access to accurate forecasts for growth over the coming regulatory period. What EMRF members have noted is that on average they have experienced some growth due to national and international economic growth. The EMRF would like to review the work commissioned by the AER consultants and independently verify the data before commenting further on the actual forecasts.

Notwithstanding this, the EMRF has identified a trend amongst electricity networks to overstate the growth in new connections and in demand (MW) as this adds justification to their claims for capex. Countering this, the networks tend to understate the growth in consumption (MWh) as this amount is used in the denominator of the price cap and tariff calculation. We would therefore counsel the AER and its consultants to closely examine past applications and forecasts to identify any trends in under- or over-forecasting which has led to

acceptance of increased capex claims or to gaming tariffs by under estimating forecast usage.

It would also be useful to aggregate all of the claims by the distribution businesses against the values used by NEMMCo and TransGrid as the basis for setting generation adequacy and forecast transmission usage and demand. Further, ABARE also provides assessments for growth and could be requested to provide an independent assessment of growth.

7. Pricing Methodology

In the recent decision underpinning Chapter 6 of the NER, the MCE has accepted the principle that distribution pricing is more a matter for users of the transmission network than for the DNSPs, although it is accepted that under a price cap pricing approach, the DBs are incentivised to increase demand and consumption as by doing so they will increase their revenue.

Because of this pricing was of interest to regulators but only to the extent of establishing a mechanism to manage the price movements overall. Under the new Chapter 6, the regulator is required to ensure that the individual prices for each service are set as close to cost reflective as is reasonable. These changes to Chapter 6 now require the AER to ensure that the prices developed by DBs are based on sound economic principles.

5.1 A shared network: the underlying principles

As consumers are the prime providers of funds to support the distribution network, they accept that having a jointly shared facility is by the far the most cost effective approach to the provision of a natural monopoly service. Not only would it be absurd for each user to have a separate supply arrangement for its provision of power, it is economically inefficient from a national viewpoint for this to occur. Having established that a joint facility is the most appropriate approach for infrastructure provision, there is an unstated but real requirement that the costs each user is liable for must be equitably shared and that the prices they pay are representative of the use they make of the shared facility.

Consumers see distribution pricing as an essential element of the AER regulatory reviews of DBs. Pricing is the allocation of the revenue streams into clearly identifiable elements so that consumers can readily see that the allocation of the permitted revenue is equitably allocated between all consumers representing the share of the cost of the provision of the transmission network. The outcome of this approach provides for all consumers to see that they each pay their equitable share of the jointly used assets. It also provides certainty that decisions made by each user (such as location, time of and frequency of use, and overall demand placed on the network) are adequately recognised by the user, and that no one user is effectively supporting less rational decisions by another user.

Inappropriate pricing of services leads to inefficient outcomes. A user that is convinced that it is paying too much for the service will take a number of actions to reduce its costs, perhaps leading to nationally inefficient outcomes. The user that is not paying its fair share for the service undervalues it and makes inappropriate use of the facility. Over allocation of distribution costs can lead to companies deciding to relocate overseas or close down, causing remaining users to provide that contribution from the business ceasing its operations.

Equally, under allocation of costs results in the proliferation of occasional users who do not recognise that impact of the decisions they are making.

Consumers have observed that DBs have an incentive to maximise prices in elements where they identify as the most likely to exceed the estimates for demand and consumption used in their development, and to minimise prices where elements are likely to be less than forecast. Gaming of the DB pricing is a fine art and can lead to very large rewards. Requiring prices to be cost reflective eliminates much of the potential to game pricing methodologies. It is imperative that the AER devotes considerable effort into minimising the incentive on DBs to game their pricing methodologies.

5.2 The NSW DB Approaches

In their proposals, the DBs have not provided their proposed pricing methodologies, so it assumed that they will be a restatement of current practices, and therefore do not necessarily reflect the new Chapter 6 requirements.

However, as noted in the DB applications and as acknowledged by EMRF in section 2 above, the bulk of the increase in demand is caused by the increasing use of residential refrigerative air conditioning. The requirements of the Rules require pricing to be cost reflective. This therefore requires the pricing methodologies of the DBs to recognise that those using refrigerative air conditioning pay for the increased demand resulting from this. Allocation of higher costs to those that have not caused the need for the augmentations to pay for refrigerative air conditioning (especially at a residential level) must be demonstrably avoided.

As a result EMRF has not commented on the pricing approaches, but will do so after the AER releases more details of them.