

*Energy Consumers Coalition of
South Australia*

Australian Energy Regulator

SA Electricity Transmission Revenue Reset

ElectraNet SA Application

A response

by

The Energy Consumers Coalition of SA

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Executive Summary

The ECCSA welcomes the opportunity for presenting its views on the application from ElectraNet SA for a reset of the electricity transmission revenue in South Australia. ECCSA has already provided its preliminary views at a public forum held in Adelaide on 24 July 2007. However, ECCSA apologizes for this submission being a little after the time initially set by the AER and appreciates being granted extended time to make this submission.

At a high level, the ECCSA notes that the costs for providing the electricity transmission system in South Australia are set to **rise significantly** based on the application of ElectraNet. In nominal terms, ElectraNet advises that costs will rise from \$14/MWh in the year commencing 2008, to \$18.50/MWh in the year commencing 2013. This change does not agree with the rates, which are derived for the ESIPC forecast consumption base case. Using ESIPC data, average tariffs would increase from \$13.50/MWh to nearly \$21/MWh. This is a rise of over 50% in nominal terms and over 40% in real terms. This is an extraordinary impost of an annual average real increase in price of over 8%. This proposed rise in average cost needs to be assessed in light of the cost for transmission services of an average of about \$12/MWh in 2005.

ElectraNet is contributing greatly to this significant rise in costs by seeking across the board increases in expenditures. By the end of the term, ElectraNet will have increased its asset base by nearly 90% to \$2057m (see ElectraNet table 12.1) from a closing RAB of \$1085 on 30 June 2007. ElectraNet further exacerbates these costs by seeking an unwarranted increase in opex costs of \$14m pa (real) which equates to about \$1/MWh on its own.

The main increase in average costs is attributed to consumption, which is projected to only marginally change over the period (thereby implicitly increasing per unit costs). Notwithstanding the projected marginal change in consumption, ElectraNet is seeking a massive capex program, equal to over 80% of the RAB, with contingent projects doubling this amount. The ostensible reasons for the large increase in capex is the need for new and additional assets to service customer demand, but additionally these costs are inflated considerably by the costs for the provision of these assets. Analysis by ECCSA suggests that the claimed costs have (with perhaps the exception of transformers) little justification when assessed against movements in wages and construction materials, as measured independently by the RBA and ABS.

In undertaking our analysis, ECCSA has identified that ElectraNet (and all other TNSPs) has an inbuilt incentive mechanism under the building block approach, whereby ElectraNet increases its profitability simply by replacing assets (regardless of whether they are still used and useful) as its profits are all tied to

the return on assets (opex is intended only to recover cost and therefore has no profit built in). This highly distortive incentive is compounded by another incentive to replace assets, as asset replacement reduces opex and so provides an underrun on opex which ElectraNet can, in turn, claim full benefit in the period and argue for a benefit sharing in the next period.

ElectraNet implies in its proposal that the WACC should be increased as they consider there is a fundamental error in using published values of Commonwealth bonds, which increases the yield on bonds by 20-50 basis points. This is despite the efforts of the AEMC (through its final transmission revenue rules decision) to remove WACC inputs from being debated at each regulatory reset. This approach was to give greater certainty to TNSPs by means of a forward WACC. It seems that an increase in WACC is considered by ElectraNet to be sufficient justification to re-open the AEMC's final Rules determination on transmission revenue as it pertains to the WACC parameters!

Overall ECCSA has the following issues with the ElectraNet application:-

- a record capex proposal that is highly questionable
- an excessive level of opex claims that is not only poorly justified, but also lacking in reality
- many examples of questionable cost claims, including replacement of assets through early retirement of existing assets and by reducing asset lives, re-opening of easement values, and little or no evidence provided of capex prioritization or examination of options and alternatives to capital (network) construction, potential increases in wages and inflation and material costs
- an appropriate re-opening of the WACC input (Commonwealth bonds)
- no real evidence of any efficiency savings, even though comparative benchmarking data suggests that ElectraNet's performance compares unfavourably with other Australian TNSPs and is the highest cost TNSP in the country.

1. Introduction

1.1 The ECCSA

The Energy Consumers Coalition of SA (ECCSA) is a forum representing large energy consumers in South Australia. The ECCSA is an affiliate of the Major Energy Users Inc (MEU), which comprises some 20 major energy using companies in NSW, Victoria, SA, WA, NT, Tasmania and Queensland.

The ECCSA welcomes the opportunity to provide comments on the AER's review of the revenue reset for the South Australian electricity transmission system.

Analysis of the electricity usage by the members of ECCSA shows that in aggregate they consume a significant proportion of the electricity generated in SA. 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 SA and therefore heavily dependent on local suppliers of hardware and services, members also have an obligation to represent the views of these local suppliers. With this in mind, the members require their views to not only represent the views of large energy users but also those of smaller power using facilities, and even of the residences used by their workforces.

The companies represented by the ECCSA (and their suppliers) have identified that they have an interest in the **cost** of the energy networks services as this comprise 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 ECCSA 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, ECCSA (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 ECCSA 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

ECCSA recognises that with the recent release of the AEMC Chapter 6A of the Electricity Rules (which is overtly stated as being pro investment by the AEMC but assessed to be biased and unbalanced by consumers), 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 TNSPs are to have incentives to perform more efficiently.

In principle, these (AEMC) 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 AEMC 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 transmission reset reviews. The ECCSA (and MEU) has had significant involvement in this aspect of the AEMC’s pricing methodologies Rules determination and views on this element will be presented later in this submission.

1.3 A summary view of the ElectraNet application

Putting aside for the moment the detail of the elements which comprise the application from ElectraNet, the outcome of the application is that over the period of the reset, transmission tariffs will rise significantly, from \$13/MWh in 2007 to \$15.5/MWh in 2009, rising to \$20.60/MWh in 2014 in nominal terms¹, a real annual increase of 6-7%, after allowing for inflation.

This is a massive increase, given that the amount of projected electricity actually consumed is to increase only marginally. Even after adjusting for expected inflation, the increases in costs still are excessive.

The ostensible reasons for this increase are stated as being:-

- Increased capital expenditure to manage increases in demand
- Increased costs due to the shortage of skilled labour
- Increased costs due to increased material costs
- Increased capital expenditure to replace many aging assets
- Lack of investment by the previous government controlled entity.
- Increased maintenance costs due to the age of existing assets
- Increased maintenance costs due to labour costs.

Against these “across the board” cost increases there is almost no suggestion that there is any prospect of any reductions in costs, including efficiency savings. Competitive industries such as our members are continually driven to reduce the costs of producing their products, yet regulated businesses seem to depart from the competitive norm by adopting what appears to be a ‘historic cost plus increase’ culture.

Against this background, we consider that the AER has a clear responsibility to ensure a certain amount of discipline is placed on ElectraNet and that all claimed costs can be justified and are economically efficient.

¹ See section 2.1 following

1.4 The helicopter view

The ECCSA is unable to accept that the proposed increases in costs can be justified when assessed against a background of only a marginal rise in consumption. Equally, we accept that the applicant has provided arguments in support of each element of their claimed cost increases. In a competitive world, senior management of a business must and do take a view that any claimed increase in cost must be controlled in light of the potential implications for the businesses' competitive position. In the regulated energy sector, however, legislation has provided the AER with the responsibility of providing this discipline, and so it must ensure that the resultant outcomes are in keeping with what can be expected from the discipline of competitive drivers.

At its most fundamental level, an increase in price of nearly 50% real over a 6 year period cannot be sustained by any competitive business.

A consistent complaint raised by TNSPs and distribution networks, has been the lack of investment by previous government owners. It is now nearly 10 years since the South Australian government exited ownership of the TNSP and DNSP in the State. Regulators have already undertaken one reset review, effectively granting the TNSPs what was requested in terms of capex, and opex.

Performance by ElectraNet over the regulated periods since has been acceptable, yet the funds granted at the last review seem now to be insufficient, supposedly warranting a significant increase. ElectraNet has continued to be financially viable, yet more revenue is being sought.

1.5 The materiality of transmission costs

It is often alleged (particularly by TNSPs) that of all the costs that consumers incur from the electricity supply chain, transmission charges are the least. Other than losses and NEMMCo costs, this statement has validity. Further, TNSPs point out that transmission costs are effectively hidden from most consumers when they are rolled into distribution network charges. Again, this statement has some validity.

Notwithstanding the above, transmission costs can be significant, and the closer a consumer is to the transmission supply point and the larger the demand of the consumer, the more significant transmission costs can become. It is, therefore, essential that transmission costs are not treated as insignificant, and are addressed in a comprehensive manner.

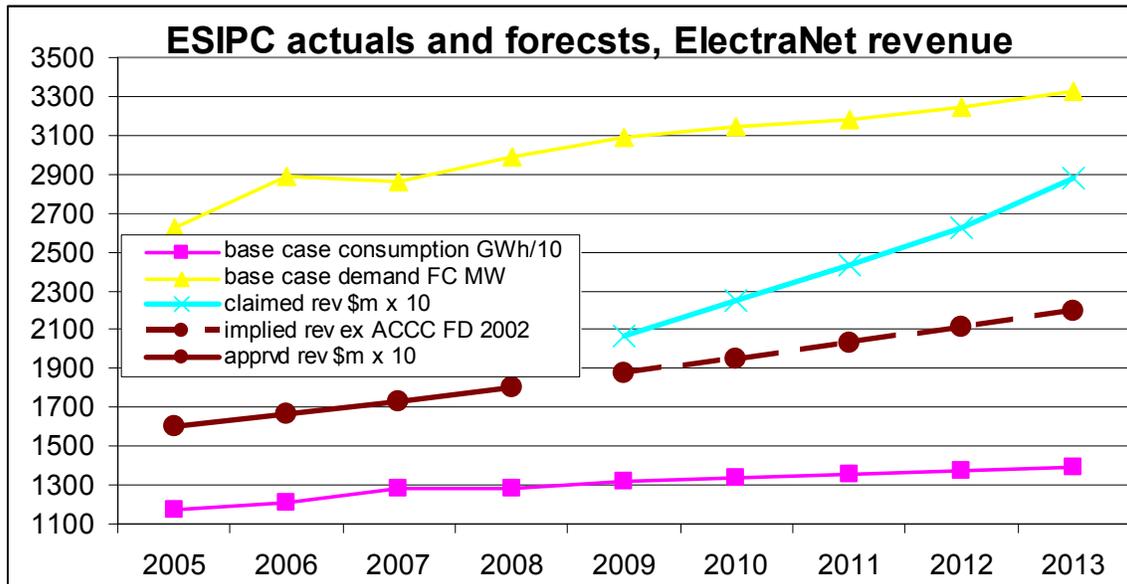
2. The demand forecasts versus costs

2.1 An overview

The Electricity Supply Industry Planning Council (ESIPC) is a government established independent body which assesses the needs of the state with regard to electricity supplies, and in particular the needs for augmentation of the SA transmission network.

It is noted that the ESIPC only addresses the physical needs and not the costs of meeting the needs. Bearing this in mind, despite their assertions, there is an underlying need to balance the desires for providing augmentations to the network **with the capability of consumers to pay** for all of the augmentations ESIPC would normally support.

In regard to this, the following graph provides a pictorial view of this very important rider of ESIPC observations.



Sources: ElectraNet application, ESIPC 2007 Planning Report, ACCC FD 2002

Thus the ECCSA would point out that the base case forecasts of consumption and demand made by ESIPC show a gently increasing trend. The historic revenue approved by ACCC in 2002 tends to match this increasing trend, as shown by the implied revenue based on the ACCC 2002 decision.

When these trends are compared to the ElectraNet revenue claims for the next period there is a significant divergence, showing a quantum jump

from financial year ending 2008 to the next year and a dramatically increasing rate of increase.

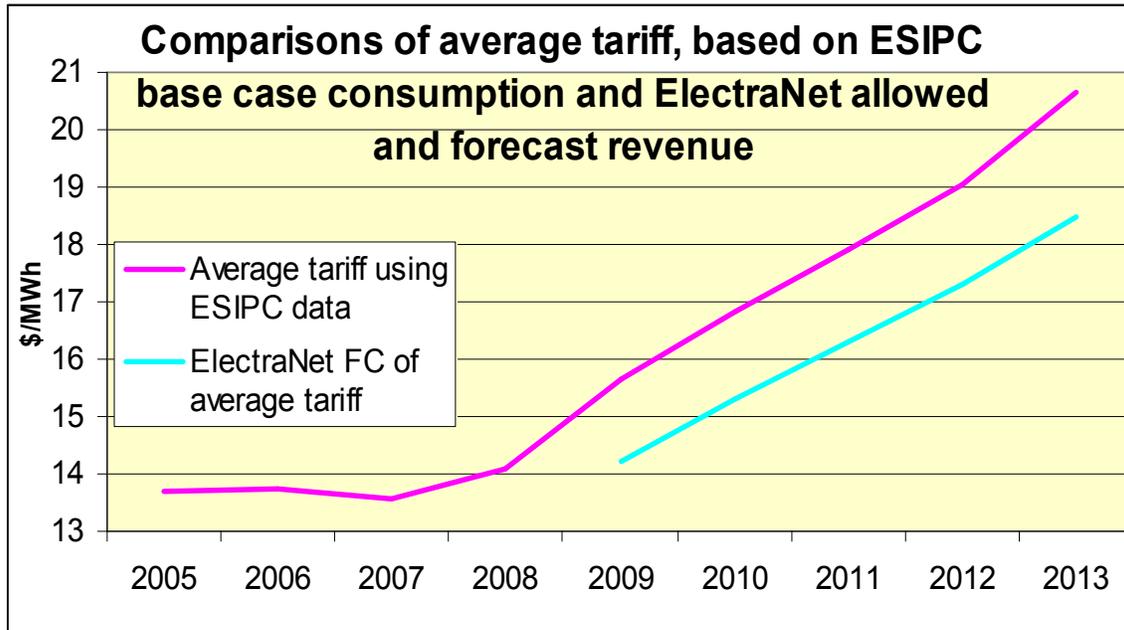
The ECCSA accepts that ESIPC has addressed its statutory responsibilities well, but as ESIPC comments on page 21 of its submission to the AER:-

“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.” (emphasis added)

ESIPC has made its assessment of the needs of the network in isolation of the costs to provide the recommended augmentation. Whilst this is a useful tool in network planning, it cannot address the capacity to pay for the “wish list”. ESIPC points out that the increases and demand and consumption (base case) are set to be modest but ECCSA considers these modest forecasts need to be compared to the revenue sought by ElectraNet

The outcome of the revenue sought compared to the ESIPC base case for consumption is stark, and is not comparable to the ElectraNet forecasts of average tariff².

² See figure 1.6 and table 12.8



Source: ElectraNet application, ESIPC base case forecasts

For the past three to four years the average tariff has been between \$13 and \$14 per MWh of consumption. Based on ESIPC forecasts of consumption and ElectraNet claimed revenue, the average tariff is set to exceed \$20/MWh – this is a massive 50% increase in tariff and would be the highest transmission tariff in the NEM.

The ECCSA therefore points out that whilst ESIPC may support much of the physical augmentation recommended by ElectraNet these recommendations have to be seen in the context of the resultant unacceptable increases in tariffs that would result from accepting the recommendations without assessing the cost impact on consumers.

2.2 New augmentations

As ESIPC is a statutory body operating as an advisory body, it has no incentive to 'over' or 'under' estimate future demand or consumption, or to assess the costs of augmentations included in its "wish list" developed on behalf of consumers.

ElectraNet on the other hand has an incentive to maximize its augmentation program as this is the source of its increased profitability. Given a "wish list" from ESIPC, ElectraNet is incentivised to incorporate all of the recommendations proposed by ESIPC, regardless of the cost impact on consumers (or regardless of other considerations, such as prioritization of projects, ability to manage capital programs, and alternative options to capital investment). It appears that, in the

absence of the AER reset review, there is no party which has a driving interest in assessing the overall cost impact of ESIPC proposals and ElectraNet responses to these, on the ability of consumers to pay let alone on the basis of other considerations and options.

In a competitive environment this discipline is provided by the market. The AER, as the regulator, has a challenging task to provide this discipline on behalf of consumers.

One tool which is not available to the AER at this time due to the decision of the AEMC to set the input elements of the CAPM formula is to assess whether the WACC is set at a level that would create a degree of constraint on what appears to be virtually unrestrained augmentation. A WACC which is set at such a high figure that encourages investment in the regulated business rather than in other investment opportunities provides no financial constraint on a regulated business, as its ability to source investment (be it debt, retained earnings or equity) to match the investment program is virtually unconstrained.

Limiting the WACC creates an internal tension within a regulated business so that some of the market discipline is transferred to the management of regulated enterprise because the ready ability to source investment funds is limited by the competition to access the funds.

The ECCSA and its affiliate MEU has consistently been critical of regulators for providing WACCs at such a high return that there is no constraint on accessing investment funds. This is a poor regulatory model, as regulators must be able to set the WACCs so that there is some competition for sourcing funds for capital works.

In its 2002 decision the ACCC awarded ElectraNet some \$360m (real) of capex. This was divided into two elements – construction and refurbishment. The ratio of expenditure was \$5 of construction to \$1 of refurbishment. In the current application ElectraNet seeks approval of \$780m of capex (twice the amount allowed in the current period) where the division between the amounts is \$3 for augmentation and connection for every \$2 of capex for replacement.

The amount sought for augmentations (some \$385m) is similar to that approved by the ACCC for “construction” (\$340m in \$06/07) allowed for the current period, and reflects the work suggested by ESIPC as being required. However, table 5.11 of the ElectraNet proposal indicates that in the current period, ElectraNet spent only \$195m on augmentation and connection works, and \$184m on replacement works. This implies that the construction budget included large elements of replacement works within

it, and the ratio between augmentation and connection works with replacement works is about 1:1. Thus the new ElectraNet budget implies a greater amount of augmentation and connection works than in the current period. This sits rather oddly.

Since 2002 to date, the consumption of electricity in SA has hovered about 13000 GWh pa and annual peak demand has also stayed in the range of 2800 to 2900 MW³, peaking at 2873 MW in 2006. **Thus implicitly the augmentations permitted in the 2002 reset have been implemented to meet expectations that never eventuated.** Despite this ESIPC is of the view that there has been an increase in the amount of constraints in the SA transmission system that warrants the same amount of capex again in the new period. This appears to be contradictory with the actual facts where neither consumption nor demand has risen significantly over the current period. ECCSA strongly contests the ESIPC analysis.

The ESIPC expectations of demand and consumption increases are again very modest, and ECCSA notes it does not appear to support the amount of augmentation capex sought by ElectraNet.

2.3 The CBD augmentation

The ECCSA notes that some \$138m is proposed as part of the Adelaide CBD reinforcement. This raises two fundamental questions – is the increase in security of supply for the CBD warranted, and if so who should pay for it?

The ECCSA has no view on the first question, but suggests that the AER should investigate this issue. However, the ECCSA is strongly of the view that the beneficiaries of this increased security of supply should be the only ones to pay for this increased reliability. In other words, the costs must not be smeared across all consumers.

Historically such allocation of costs has not been the province of the ACCC/AER but under the new Chapter 6A Rules, there is a strong requirement on the AER to ensure that the “causer” pays for the network services. In this case the increased security of supply to the CBD is “caused” by the users within the CBD, and therefore the costs resulting from this augmentation must be allocated to the users within the CBD, and not to consumers who do not get a benefit

³ NEM review actual recoded demands, excluding losses – ESIPC estimates include losses.

2.4 Observations about what capex should be levied against consumers

In light of the recent AEMC decision on the pricing Rules to require the AER to address the issues of cost allocations more closely, the ECCSA notes that a number of the proposed projects requiring augmentation are related to connection of new generation and augmentation of networks to allow greater access of generation to the shared network.

The ECCSA notes that the only projects that should be included for SA consumers to pay for, are those directly related to demand projects.

Projects which provide connection to new generation must be paid for by the generators being connected, and not made part of the costs to be recovered from consumers.

Additionally, it is noted that a number of projects proposed are augmentations to the shared network which will be primarily to prevent congestion caused by too many generators attempting to access the shared network at a common location. The AEMC (in its recent revenue and pricing Rules determination) was quite definite that generators were not expected to pay for deep connection costs, but as a recognition of concerns that there were no locational signals for generation, the AEMC further decided that generators would be responsible for any augmentations that were a result of congestion caused by generators, and that this would provide the incentive for generators to locate where congestion would not impact on the ability of generators to dispatch into the shared network.

The ECCSA therefore points out that a number of the projects proposed by ElectraNet might be to allow greater access of generation to the shared network. The AER must provide clear direction to ElectraNet that in cost allocations, these augmentations should not be included in costs paid for by consumers and that the costs are correctly allocated to generators.

In a similar vein, it is noted that ElectraNet has identified a number of contingent projects, which total some \$950m⁴:-

“ElectraNet has identified proposed contingent projects that:

- Support future generation and interconnection requirements, where the project is dependent on demonstrating a net market benefit;

⁴ Proposal page 68

- Based on current demand forecasts are required in future regulatory periods, but would need to be advanced if a step increase in demand of sufficient magnitude occurs; and
- Are required in the forecast regulatory period, but the scope of the project and therefore cost is uncertain.”

ESIPC has made no clear observations about these projects, but the impact on consumers would be major as they would double the amount of capex being sought by ElectraNet.

The ECCSA would note that those projects which do not add value to SA consumers (eg increasing augmentation to allow SA generators greater access to other regions) should be carefully examined to ensure that SA consumers are not levied the costs for providing services which will not provide them with a net benefit.

3. ElectraNet regulated asset base

The key elements of setting the future RAB and its development from the starting RAB and its roll forward are:-

- Starting RAB
- Capex included from the starting RAB
- Depreciation approved for inclusion
- Inflation adjustment (based on actual amounts)

Each element is discussed below.

3.1 Starting RAB

This has been set by the AEMC and fixed in Chapter 6A schedule 6A.2 (\$ million) at:-

“ElectraNet 823.75 (as at 1 January 2003)”

3.2 Capex included in RAB

In its 2002 decision, the ACCC stated it would undertake a review of the actual capex of ElectraNet and assess the legitimacy of it using the regulatory test approach. The ACCC also stated that it would assess the capex program for potential “claw back” due to the very real concern that ElectraNet would not be able to meet the capex program allowed.

The ECCSA notes that the AEMC has stated in its Chapter 6A determination that in future capex will be assessed on an ex ante basis and that the actual capex incurred is to be incorporated into the RAB on an as incurred basis. The MEU had commented to the AEMC that this approach is flawed, particularly when the capex is assessed on a probabilistic approach. The AEMC has (wrongly) elected to ignore this concern at this time.

Notwithstanding the AEMC decision, the AER still has an obligation to ensure that capex incurred prior to the change in Chapter 6A is both prudent and efficient and deal with an issue in which the ACCC had an obvious serious concern. Therefore, the ECCSA expects that the AER will undertake a review of all capex incurred prior to the AEMC determination to ensure that it meets the requirements for rolling into the RAB.

Chapter 6A does require that for this review (and future reviews) the AER will carryout a detailed review of claimed capex so that approval of future capex can

be granted on an ex ante basis. Where a detailed ex ante review did not occur (such as for the 2002 review of ElectraNet) then the ex post review must be carried out as otherwise there would have been no detailed review of each project implemented by ElectraNet for prudence and efficiency. ElectraNet would then be given a 'free lunch' (in the economist's terms) at the expense of consumer interests.

3.3 Depreciation and inflation

ElectraNet advises that its depreciation schedule is as incorporated in the final decision of the ACCC in 2002, and that it has used actual inflation to develop the roll forward. The ECCSA agrees that this is an acceptable approach.

However, the ECCSA does require that after the approved capex is included, the AER should carry out its own calculations to ensure the starting RAB is correct

3.4 Inclusion of previously optimized assets

ElectraNet states that in the 2002 review, the ACCC optimized certain elements of the asset base so that the RAB was effectively discounted as parts of the SA transmission assets were over-sized for the purpose. This statement results in two very fundamental questions being asked:-

1. What was the value of the optimizing that was undertaken, and at what time?
2. Are the assets that were optimized out of the asset base now being productively used?

Assets that have been optimized out of the RAB are only entitled to be reinserted into the asset base from the time when capital would otherwise have had to be spent in order to provide a service. Assets that have been optimized out of the RAB can only be reinserted by the amount that was removed by the optimization process, and after allowing for depreciation incurred in the intervening period.

ElectraNet must provide evidence that the assets are now needed (ie are used and useful), and that it has been the growth in demand that has caused the need for these assets to become used and useful. To demonstrate this requires ElectraNet to prove that it would otherwise have had to incur capex in order to maintain the network security, for example, by use of a Regulatory Test analysis.

3.5 Easements – principle at issue

ElectraNet has continued with its program to have “free money” added to the RAB by requesting the AER to review the 2002 decision of the ACCC to increase the value of easements previously awarded. To assist in their quest, ElectraNet has referred to a letter from ACCC Commissioner Ed Willett⁵, which states:-

“As previously noted by ACCC staff, the ACCC would consider revaluation of ElectraNet’s asset base if ElectraNet was able to establish that such a step accords with the reasonable expectations of ElectraNet’s investors.”

It is pertinent to state that the ACCC did incorporate allowances for easements in the RAB of other TNSPs, based on either a decision by the jurisdiction to include certain costs in its assessment of the RAB, or where the TNSP could provide actual costs supporting the amount spent on acquiring easements.

The first approach applied in the case of TransGrid and Transend, where the jurisdictions required (as an exercise in poor public policy-making) the ACCC to include in the RAB a certain amount for easements, even when the ACCC was of a view that such inclusions were not necessarily supportable.

The second case applied in the case of PowerNet in Victoria. Records were provided which clearly stated the amounts that were expended in the acquisition of easements, and this amount was (in the view of MEU and its affiliates, wrongly as it was part of a privatization program) included in the RAB.

This second case applied to ElectraNet, which was able only to demonstrate that an amount of \$3.4m had been spent in acquiring easements. This is the figure that ACCC considered was appropriate for easement value as it was the only declared amount included in any valuation of ElectraNet assets at the time. It is pertinent to point out that this amount was the amount included in the book values of assets sold to ElectraNet by the SA government.

The statement by the ACCC commissioner Willett is questionable on two counts.

Firstly the ACCC had no remit to bind the AER to any course of action such as is implied, as no regulator has the power to bind a future regulator to any course of action. Commissioner Willet only has the power to suggest that a future regulator might look at the issue.

⁵ ACCC letter 3 August 2004

Secondly (and more importantly), for Commissioner Willett to advise that a future regulator might consider inclusion of an amount into the RAB on the basis that the purchasers of the transmission assets might have considered that such an inclusion was their expectation, raises the spectre of regulators adding amounts to RAB purely because investors expected the amount to be added.

A regulator can only add amounts to the RAB where there is a valid reason to do so. The ACCC established a regulatory principle that they would only include values for easements if directed to by the jurisdiction or if the amount is demonstrably a cost that was incurred in the acquisition of the easement.

ElectraNet has only provided information that its investors expected the ACCC to value easements on a certain basis, yet has not provided any additional information that more than the \$3.4m was ever expended for this purpose.

In a letter to the ACCC dated 5 September 2002, the SA Acting Minister for Energy commented in relation to the easement issue:-

The Government is concerned with the impact on the South Australian community of the inclusion of assets that are never likely to be replaced, in the manner suggested by ElectraNet.

It is recognised that there is a need to include a fair and reasonable value of easements in the asset base. Although the valuation of \$3.1 million included in the jurisdictional Regulated Asset Base can be argued to be inadequate, a value of \$215.3 million appears excessive.

The letter goes on to state that transaction costs were probably expensed at the time and therefore should not be included in the RAB, but does also suggest that an approach might be for assessing historic acquisition costs by reference and comparison to the costs incurred by PowerNet who had retained comprehensive data on easement acquisition costs.

The ECCSA is totally opposed to such an approach. This opposition is based on the fact that ElectraNet investors were fully aware of the amount included in the ElectraNet books for easements at the time of the purchase of the assets. These investors had the opportunity to raise this issue at the time of the purchase, but elected not to do so, possibly because if they had, the purchase price might have risen to reflect a higher value. It was a clear case where the investors decided to take a risk on whether they could convince the regulator to increase the value of the assets without the investors having to pay a commensurately higher purchase price.

An analogy to this can be found in the purchase of some pipelines where the purchaser pays a price based on a known cash flow. The Gas Code is quite clear in stating how the value of a pipeline is to be developed. One of the key elements for assessment includes the purchase price paid:-

8.10 When a Reference Tariff is first proposed for a Reference Service provided by a Covered Pipeline that was in existence at the commencement of the Code, the following factors should be considered in establishing the initial Capital Base for that Pipeline:

- (a) the value that would result from taking the actual capital cost of the Covered Pipeline and subtracting the accumulated depreciation for those assets charged to Users (or thought to have been charged to Users) prior to the commencement of the Code;
- (b) the value that would result from applying the "depreciated optimised replacement cost" methodology in valuing the Covered Pipeline;
-
- (j) the price paid for any asset recently purchased by the Service Provider and the circumstances of that purchase

...
8.11 The initial Capital Base for Covered Pipelines that were in existence at the commencement of the Code normally should not fall outside the range of values determined under paragraphs (a) and (b) of section 8.10.

It is pertinent to note that easement acquisition costs have not been an element to be added to the RAB for a pipeline after a pipeline has been purchased.

ECCSA considers that ElectraNet investors purchased the assets in full knowledge of the amount included in the purchase price for easements, knowing that the purchase was being carried out on a competitive basis.

That the investors expected the ACCC to later allow them to artificially increase the RAB to include larger amounts for easements than was declared in the books, can only be seen as a grab for an increase in value of the assets that they had purchased, with the aim of forcing the regulator to increase the asset value at a later time.

This can only be seen as an unwarranted (and unearned) grab for cash and investors must not be allowed to transfer investment risks to current consumers!

3.6 Easements – valuation approach

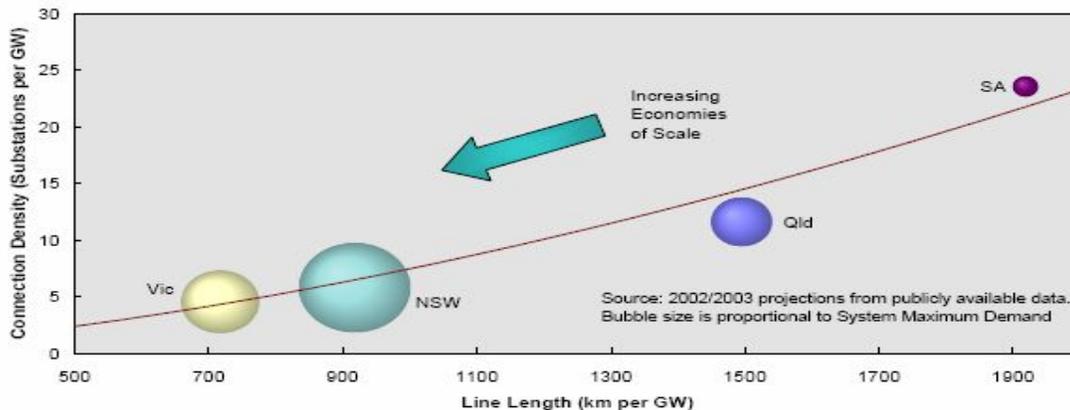
Notwithstanding ECCSA's total opposition to AER increasing the easement value, it also has a view on the methodology used by ElectraNet to set a proxy value for easements.

In the absence of any substantive information, ElectraNet has assumed that the amount included for easement in the ACCC 2002 decision is incorrect. Because it cannot prove that there were any other costs in easement acquisition than that included in the books at the time of purchase, it has sought to use the approach to easement valuation used by PowerNet in 2002, which was able to prove the amount spent in easement acquisition. As ElectraNet has no financial basis for claiming an increased value for its easements it has made a number of somewhat dubious assumptions. These are:-

- ElectraNet easements are comparable to Victorian easements. As ElectraNet has no data proving it has incurred any capital expense in acquiring easements, it has attempted to prove that its easements are comparable to those in Victoria. This is a bold assumption and presupposes that the use and the degree of development (and therefore the value) of land in the two states is common, even allowing for the degree of subdivision of land uses considered by the ElectraNet consultant. However, it is worth noting that ElectraNet had advised in its 2002 application that its market and transmission system design is unique to itself and therefore comparisons (especially to Victoria) are inappropriate⁶.
- There are acquisition costs that have been excluded from the asset base. This presupposes that prior to the sale of ElectraNet to its current investors, ElectraNet did not expense all of its easement acquisition costs and therefore seeks recover the costs (again!) as part of the charges levied on current consumers for the provision of services. This is indeed a bold assumption and one that cannot be proven or dis-proven based on the documentation available! Suffice to comment that lack of information is

⁶ See for example figure 3.2 from the ElectraNet 2002 application. Other comparisons are included in sections 3 (business characteristics), 6 (capex) and 8 (opex) of the application

Figure 3.2: Economies of Scale Comparisons



not substantiation for inclusion of additional costs to consumers. It would be a bold decision to assume that previous easement acquisition costs had not been expensed at the time.

- The costs for acquisition of easements are related to the value of land. This is another bold assumption, as in many cases easements (particularly over rural land) have little impact on the ability of rural land to continue to deliver to the owner the same amount of revenue post acquisition as it did pre acquisition of the easement.

4. ElectraNet WACC

4.1 The AEMC revision to Chapter 6A

The rewrite by the AEMC of the transmission revenue element of the Rules as pertaining to the WACC, was explained by the AEMC along the lines that by fixing the elements of the CAPM formula, there would be more certainty for TNSPs, so that they could develop a longer term view as to what they would be granted in the way of return on assets.

It would appear that the only certainty the AEMC provided the TNSPs was an ability to raise the level of returns, and to exclude any ability of the regulator to bring some sense into the returns awarded to regulated businesses.

The investment market has already demonstrated its view of the burgeoning returns granted to regulated utilities and a monograph on how the market saw the AEMC decision is attached as appendix A.

However, the AEMC determination has not satisfied the TNSPs. They now want even more! Not content with a more generous treatment than the ACCC had granted them in the past, despite the increasing trends of jurisdictional regulators to discount the debt premiums and equity beta, they have now sought other avenues from which to increase their rewards for providing a monopoly service.

A number of regulated businesses have provided the AER and other regulators with an argument prepared by NERA purporting to explain that recent trends in the market for government issued securities (which set the risk free rate – RFR) show there might be an understatement of the **true** value of the bonds, particularly in reference to the nominal bond value compared to the indexed bond value.

The ECCSA sees this as an attempt to further inflate a WACC which is already excessive when based on the AEMC decision in Chapter 6A of the Rules, compared to the inputs used by jurisdictional regulators.

4.2 Assessment of RFR in terms of MRP and other indicators

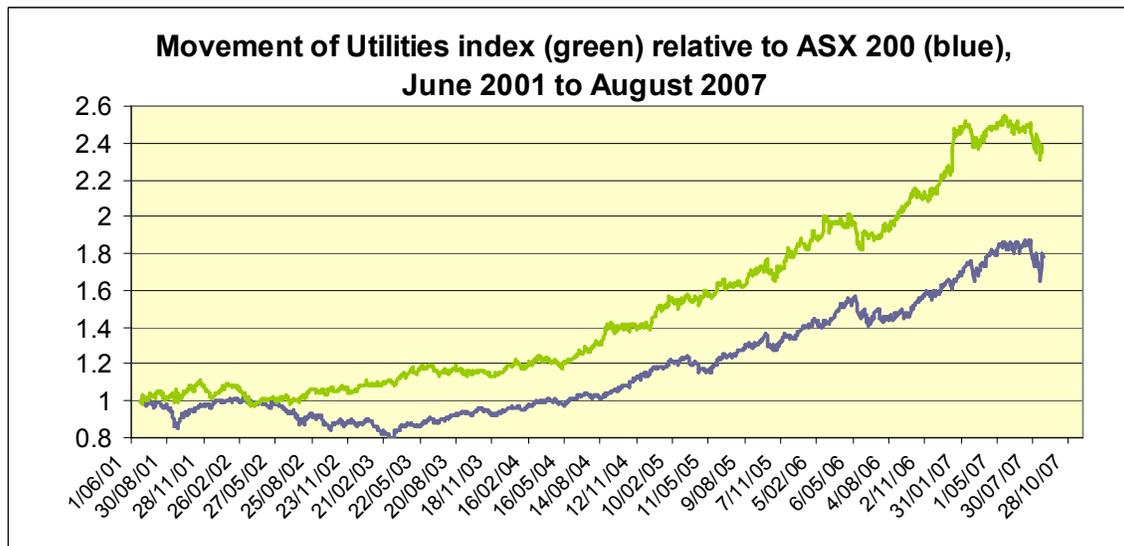
It is interesting but expected that regulated businesses will only provide information where there might be distortions in the market which have the potential to provide higher rewards. We no longer see the regulated businesses point to the “Tech boom” which supposedly distorted the market and supposedly provided an under valued equity beta. Since the end of the “Tech boom” there has been little movement in the equity beta for Utilities, despite the “Tech boom” losing all its impact in 2001. There was no protest by TNSPs (although

consumers had sought to bring this to regulators attention) when this was over, and it was demonstrated that much of the so-called “Tech boom” impact was seen as having little impact on the Utilities’ equity beta.

Unfortunately, the AEMC has, in its “wisdom”, determined that equity beta will be 1.0 until the AER carries out its review on CAPM inputs next year. The chart in appendix A includes a running review of asset beta and dividend yield for the past 18 months for Australian shares.

Since that chart was developed, as at 18 June 2007, CommSec has shown that the “All Ords” asset beta has moved from 1.02 in late January 2007 to 1.05 in mid June, with the “All Ords” dividend yield moving from 3% to 3.4%, an increase of 13%. At the same time, the Utilities sector asset beta has remained static at 0.37, but the dividend yield has moved from 4.1 to 5.8, an increase of 41%!

Further, as shown in the following graph, the Utilities sector has consistently outperformed the benchmark (ASX 200) by an average of over 40%!



Source: Data from CommSec

The basic assumption of CAPM is that the long term average of the market as a whole is that the equity beta is 1.0 (by definition) and the MRP is 6%⁷. MRP is the benefit that an investor will achieve from dividends plus share growth above the risk free rate. This means that if MRP is 6%, and dividend yields are 3%, the share value growth is 3% plus the RFR, creating an overall growth of 6% above the RFR.

⁷ This value of 6% has been addressed by a number of independent studies and the recent 30 year average is much less than this as calculated by RR Officer and others.

The consistently higher dividend yield of Utilities above that of the market average, plus the consistent out performance of the share value of Utilities compared to the market average, clearly shows that there is a significant disconnect between the WACC awarded by regulators and the earnings from investing in shares based on the market average.

There is, therefore, no basis at all for increasing the risk free rate to accommodate a supposed under-recovery in regulated WACC using the AEMC stipulated CAPM inputs.

4.3 Assessment of RFR in relation to the market

The value of government bond rates is set by the open market after valuing a wide range of inputs and discretion of potential purchasers and buyers of these securities. From the market value assessed for purchasing specific bonds of a fixed face value, a yield is determined. This yield is the bond rate.

The NERA papers imply that the market is incorrect in the way bonds are valued, and that this error has the impact of increasing the yield for those bond, or alternatively over stating the purchase price of the bonds when being traded. If an open market sets the purchase price for a bond, then this is the value the market has set, not a different value.

There will always be reasons for increases and decreases in values of securities – some well founded and others entirely speculative. These reasons will have varying degrees of volatility and therefore will impact on the outcomes. At the behest of TNSPs and others, NERA has developed a theory that bonds are currently over priced and that therefore the resultant yields are understated, warranting an increase in the stated yield to an apparent yield.

Investment managers have consistently developed theories as to why their particular approach did not work as intended. For example, equity betas in the late 1990s were supposedly depressed as a result of the “Tech boom”. Subsequent monitoring since has demonstrated that this outcome was limited in impact, if there was one at all. **As a result investments are assessed over the long term rather than just addressing transient anomalies in the market.**

It should be noted that if long term averages are measured against short term movements then there will always be periods when the market is understating the long term average. The corollary of this observation is that there must be times when the reverse occurs, when the market overstates the long term average.

If NERA is correct in that bond values are currently being over stated, then there will be a time when the market will be undervaluing them, so that in the long term these movements will be averaged out. Alternatively the market for trading bonds is wrong, and many bond traders are consequently equally wrong.

As an example of these transient anomalies, the ECCSA points to the valuing of market risk premium. The long term average of MRP has been assessed as 6% although it is accepted that MRP has been both lower than this and also higher. The AER has to decide whether it will introduce short term adjustments to the bond rates, or continue with current practices.

This point is significant as MRP is essentially the difference between the share market accumulation index change and the corresponding yield on government bonds. If the bond yield is incorrect and should be higher then it equally implies that the MRP is too high and should be reduced. As the long term MRP has been set using government bonds as published, then to change from this approach introduces the need to assess the value of bonds used for all historical analysis.

If the current assessment of bonds is a short term issue, then this has to be assessed in terms of the MRP being overstated at times as well.

4.4 Assessment of RFR in relation to the AEMC decision

The AEMC made its decision on CAPM inputs based on the previous practice of the ACCC using the Commonwealth government 10 year bond rates as published, to set the “risk free rate”. The clear import of this decision is that all elements of the CAPM would remain static, with the exception of the risk free rate, which does move with market pressures.

The stated concept behind the AEMC decision was that there would be no debate as to which part of CAPM was open to debate. The AEMC stated quite clearly that it wanted to set all parameters so that the TNSPs would have a degree of consistency in the development of the WACC. On page 82 of its Final Determination for Transmission revenue, the AEMC stated:-

“...the Commission believes that the cost and uncertainty associated with continually reopening both the methodology and parameters at each revenue cap review is unwarranted in terms of any potential benefits and the administrative costs.

Providing short term stability regarding the WACC determination reduces an important source of potential variability in regulatory decision making

thereby providing a more certain and predictable environment for investment and financing decision making.”

It is quite obvious from the decision of the AEMC on its approach to WACC, that it wanted there to be no ability of regulatory “adjustments” to be permitted – that all of the application of the CAPM was to be effectively mechanical and to allow no discretion to the regulator, so that TNSPs had a very clear understanding of what would occur in the development of the WACC. As there was no discussion (other than about the period of time over which the RFR would be averaged) the AEMC was of the view that determining the RFR was a matter of incorporating bond rates as published.

There is no certainty as to what adjustment to the risk free rate should be – NERA offers that the adjustment might lie between 20 to 50 basis points. Thus the AER is being expected to make an assessment (exercise discretion) as to what a premium might be. This is the very antithesis of what the AEMC approach was intended – to prevent the regulator from being able to vary the inputs to CAPM from application to application. The AEMC wanted there to be certainty for the TNSPs, and this matter detracts from the certainty that was at the root of the AEMC decision.

What the TNSPs are now seeking is for the AER to exercise discretion as to the extent there might be a mis-match in the value of the bond rates, and to add a premium which is not clearly determined. This unjustifiably transfers additional risks and costs to consumers.

The AER has no discretion in this area. The TNSPs should apply to the AEMC for a rule change, if they so desire. The AER regulatory reset review is not the forum for any proposal for a rule change involving the bond yield used in the WACC build up.

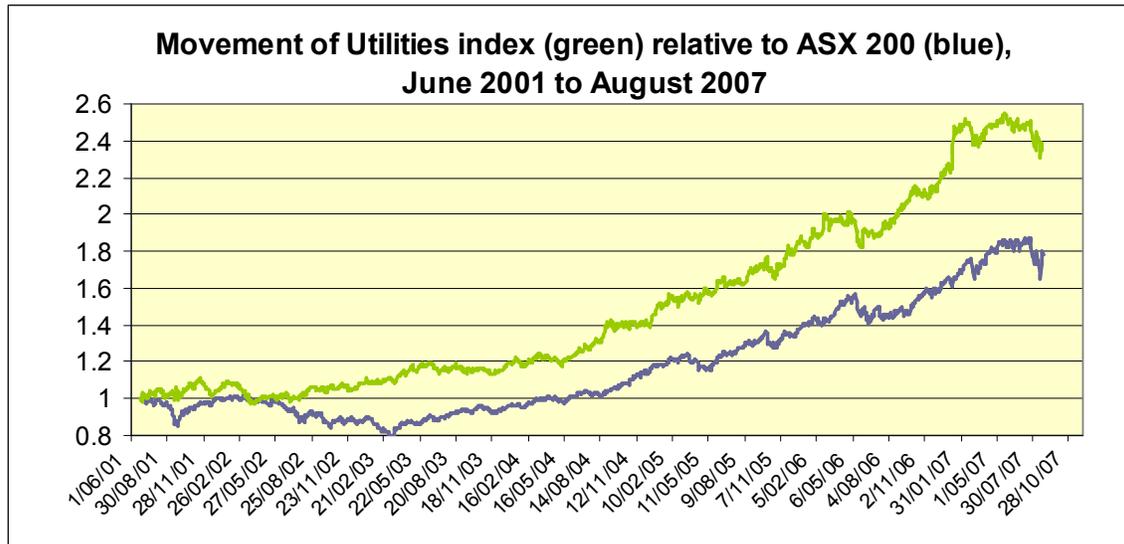
4.5 Comparative data

The following table provides some interesting comparative data between the market benchmark of the “All ordinary” shares and the ASX 200 Utilities index. The Utilities index fundamentally measures the performance of regulated businesses.

	Beta				Sector div yield				sector gearing D/E %	
	27/2/06	23/8/06	30/1/07	18/6/07	27/2/06	23/8/06	30/1/07	18/6/07	30/1/07	18/6/07
All ords	1.08	1.04	1.02	1.05	4.3	4.3	3	3.4	36	37
ASX 200										
Utilities	0.31	0.23	0.37	0.37	5.2	5	4.1	5.8	102	104

Source: CommSec

Further the performance of the ASX 200 Utilities index compared to its base of ASX 200, also shows an informative trend.



Source: input data from CommSec

Both of these show that the Utilities are consistently outperforming the benchmark, both in terms of dividend yield and share value. As the CAPM formula inputs are related to the accumulation of both dividend and share price, the accumulation index for Utilities is outperforming the “All Ords” accumulation index⁸ dramatically.

In its application ElectraNet appendix N, provides an assessment by Allen Consulting Group which is intended to convince the regulator that equity raising costs are a major element of either the capex program or the opex amount, and that the amount of 3% is an equitable amount to be included in the revenue.

As part of the support for its views, ACG calculates that the standard dividend (on which it bases its assumptions for retained earnings to be used for investment) for regulated businesses is 8.1%. This is even larger than the ASX 200 Utilities allowance estimated by CommSec; by some 300 basis points!

ECCSA’s affiliate, the MEU has provided information to the AER that already the inputs determined in Chapter 6A Rules and used in the CAPM formula overcompensate TNSPs in the returns awarded by regulator under the Rules. This additional data from ACG implies that the overcompensation is even greater than that estimated by MEU. The outcome of this observation is that there is a

⁸ The “All Ords” accumulation index is used at the basis for developing the market risk premium

clear indication that the AER must take this into consideration when assessing the amounts it grants for debt premium and premiums for acquisition of debt and equity.

To provide anything more than zero for these premiums in the current environment will only exacerbate the overcompensation already being provided to TNSPs.

4.6 Conclusions

There is no basis for TNSPs to get an even larger WACC than is intended by the Chapter 6A Rules, based on the published government bonds setting the risk free rate. Although ElectraNet has not sought a change in the valuation of the risk free rate, it is important that the AER do not permit any change to current practice. The ECCSA is of the view that the request to add in a premium to the risk free rate is based on a number of misconceptions.

- 1. The rewards granted Utilities already exceed the rewards earned in a competitive environment as indicated by the out performance of the Utilities index (where most regulated businesses are included) against the market average as indicated by the ASX 200 index**
- 2. The assumption is that the market for trading government bonds is not working correctly and that the traders dealing in these securities are incorrect in the prices they agree for trades which are the basis for bond yields. Care should be taken in making short term adjustments when it is the average that has been used consistently for the basis of all inputs into the CAPM and the development of the CAPM inputs.**
- 3. The AEMC desired to provide certainty in the WACC development for the security of TNSPs. By opening up the way the risk free rate is developed it creates uncertainty in all other inputs. It requires the AER to exercise judgment which the AEMC wished to avoid in the interests of TNSP certainty.**

Additionally there is an argument which would indicate that, as the CAPM elements Chapter 6A requires the AER to use, the AER should be very cautious as to whether it should allow any debt or equity premiums to be added to the revenue

The AER should direct TNSPs to initiate a rule change proposal for the AEMC to assess, as that is the appropriate forum for consideration of the appropriate risk free rate to be used for regulatory resets.

5. ElectraNet Depreciation

5.1 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 ECCSA 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 till being used early in this decade.

ECCSA notes that ElectraNet has developed a new depreciation schedule which allows assets to be fully depreciated within 3 years, and therefore permitted to be replaced with new after this time, regardless of whether the asset is still used and useful.

Thus ECCSA has a deep concern that assets still used and useful will be taken from service by TNSPs as the TNSPs 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 ECCSA seeks advice from AER as to how the AER can ensure that used and useful assets are retained in service and not replaced unnecessarily.

5.2 Reducing asset lives

ElectraNet has advised that it intends to reduce the regulated asset life of some assets, as a result of a review by Maunsell Australia of the expected life of assets used by ElectraNet. Overall, the recommendations have resulted in assets lives being reduced significantly.

In particular, the asset lives of electronic equipment, communications and “secondary” assets have been reduced dramatically to 3 years. The argument for this is that such equipment is being phased out and will not be supported by vendors, equipment is replaced with “better” and “more up to date” options, and elements of the SCADA systems and RTU have shorter lives, again due to the ability to get “more up to date”.

It is concerning that there is now an attitude that “old which still performs the needed functions” must be replaced with “new” because there is “new” available. The hidden impact of this change is that consumers are now being exposed to increased costs just because “newer might be better” rather than the “old still does the functions”.

Countering this view, it is also important that an issue such as this is not addressed purely on a matter of principle, but also on the reality of the costs. ElectraNet provides a schedule which highlights that this is a significant change. In its depreciation schedule ElectraNet provides data showing that depreciation for communications and computers are of the same magnitude as the allowance for depreciation of transmission lines and of substations, and totals some 20% of

the total allowance for depreciation. The impact of this change in depreciation schedule is significant, and provides encouragement to replace equipment earlier than might be needed.

ECCSA has concerns about the reduced asset lives being used, as there is an expectation that by allowing asset lives to be reduced there will be (and the ElectraNet schedule demonstrates this) a correlating increase in costs, because as the TNSPs have a WACC which is explicitly determined by the AEMC to increase investment, this change in the asset life of certain assets is a vehicle for TNSPs to increase their profitability at the expense of consumers.

The AER now has a challenge in that it must address the issue that assets are being depreciated faster just because a newer asset might be available, and that this process provides a method for TNSPs to increase profitability. As ECCSA has identified that there are now large increases in the depreciation amounts included in the roll forward due to this reduction in asset lives, the AER must assess the materiality of the changed depreciation schedule as part of its assessment of the request from ElectraNet.

However as a matter of principle, the ECCSA is of the view that an asset which performs the needed function must not be replaced just because there are newer assets available.

5.3 When should assets be replaced?

As the new Rules permit TNSPs to introduce their own depreciation schedules, it is appropriate for the AER to implement some controls on the use of this freedom by TNSPs. 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 TNSPs 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 TNSPs 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 ECCSA 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 ElectraNet to incorporate a financial tool into its asset management program to identify when it is commercially sensible to replace an asset, rather than use physical asset management alone.

6. ElectraNet Opex

On page 93 of its proposal, ElectraNet provides a statement of the drivers of its opex program in support of its increased opex costs. These are:-

- “Asset growth: Growth in demand and the new ETC standards are driving the need for significant transmission investment to meet mandated reliability standards resulting in higher levels of required operating expenditure;
- An ageing asset base: A new maintenance regime has been introduced to address the particular risks associated with a growing number of assets reaching the end of their useful lives;
- Labour skills shortages and real wages growth caused by a marked strengthening in employment in the mining, construction and manufacturing sectors in South Australia; and
- A number of cost scope changes including a land tax imposed by the South Australian Government.

The combined effect of these cost drivers is an increased operating expenditure requirement in the forecast period.”

Each of these points is addressed in turn by ECCSA

- Section 6.2 addresses the matter of wages growth
- Sections 7.6 and 7.7 address the matter of an ageing asset base and investment to meet increased demand new standards, and
- Section 6.3 addresses the step changes from the last reset to this.

In summary, ECCSA sees that there is little in these reasons to justify a step change in opex of the size requested by ElectraNet.

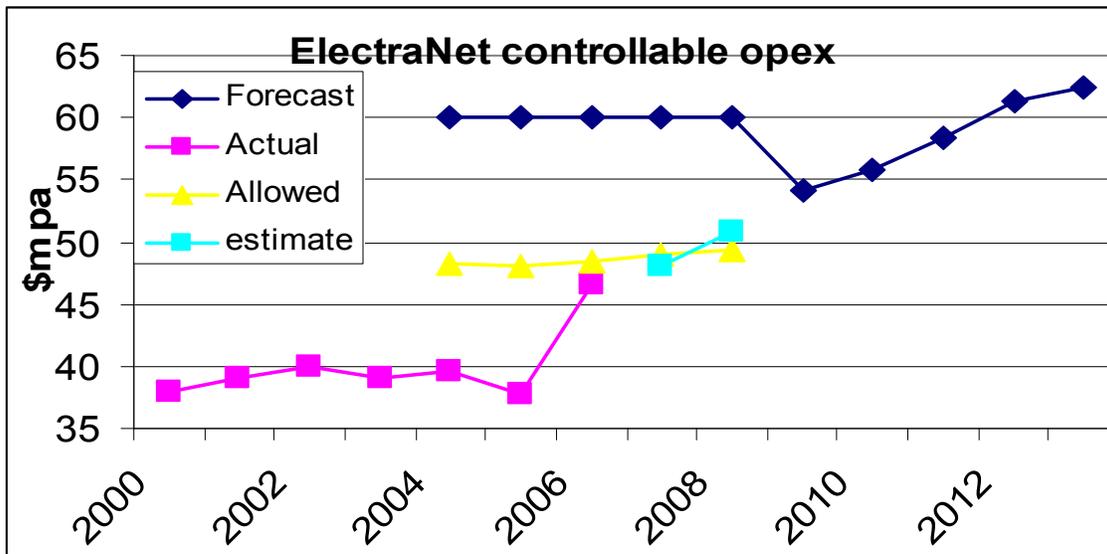
The opex incentive scheme (EBSS) is designed fundamentally to provide a driver for a regulated business to achieve the level of efficient opex. In the varying environment that a regulated business operates in it is a fundamental matter that this opex be referred to a benchmark(s) which can demonstrate that efficient opex has been achieved. ElectraNet has determined that it achieved optimum opex efficiency in year 2005/06, and uses this as the basis for developing its forecast needs of opex.

The ECCSA totally rejects the concept that a single year opex can be used as the “efficient” basis for opex, and believes that a range of benchmarks need to be identified in order to demonstrate an efficient opex level.

6.1 Opex historic, allowed and claimed

The following chart has been developed from data in ElectraNet’s application 2002, the ACCC final decision on ElectraNet 2002 and the ElectraNet proposal of 2007. Forecast total opex claims from ElectraNet average \$65m pa for the next period, whereas current total opex averages (assuming the two last years’ estimates are valid) perhaps \$54m pa (see table 11.1).

ElectraNet claims an average opex increase opex of \$11m (real) pa for the next five years over the current level of opex, which would appear to be sustainable in the absence of proven step changes in costs. This opex increase adds some \$1/MWh to the average tariff. ElectraNet points out that controllable opex excludes network support (\$4.5m pa to 2008), and equity and debt raising costs (\$0.9m pa to 2008). The figures provided are in “real” terms.



Source: Derived by ECCSA from data provided by ElectraNet and ACCC reports

As noted in section 5.1 above, under the building block approach opex is provided at cost. The only way a TNSP can make a profit on its opex is:-

1. to game the regulator and so have an allowance greater than that actually needed,
2. for the TNSP to actively seek savings in opex, hold the benefits during the period and share the underrun in the next period, and/or

3. seek to increase capex to replace assets requiring extensive maintenance costs⁹, and so reduce opex.

Of these options, 1 and 3 should not permit the TNSP to have any future sharing of the under runs.

6.2 Benchmark performance

ElectraNet has followed the benchmarking process of using its own actual opex expenditure as the demonstrating “benchmark” performance. It considers that its 05/06 opex performance is optimal. A glance at the historic opex provides prima facie evidence that this is incorrect. Historic opex (excluding the estimated 06/07 and 07/08 opex) shows that controllable opex has averaged some \$40m pa over the past seven years. Add to this the elements of “uncontrolled” opex (network support, and debt and equity raising costs of \$5.3m pa (see table 11.1), results in a base opex allowance of \$46m pa.

ElectraNet does not provide any step change data which explains the quantum change in opex between years 04/05 and 05/06. There is therefore a residual doubt about the validity of this increase of a 20% rise. Certainly, there would appear to be no exogenous reasons for the change.

As ElectraNet has elected to use its own performance as the base line benchmark (rather than external benchmarks), it is essential that it provide substantiation for any step changes from the hitherto norm of performance. That ElectraNet operates its network for many years at a certain level, but then had a large step rise, gives concern that the step rise is not sustainable.

On the basis of the data provided by ElectraNet, ECCSA has serious concerns that the large recent rise in opex is legitimate, and therefore it considers that ElectraNet has provided a sustainable multi year efficient benchmark for its controllable opex of \$40m pa rather than the implicit level of \$47m pa ElectraNet proposes, based on one year performance.

This approach was taken by the ESCoV in its reset review of the electricity distribution networks. By and large, the historical levels were used as the basis for setting opex into the future, with adjustments for identified step changes in costs.

The ECCSA see no reason at all not to take this proven approach, although it is accepted that there might be some step changes which occurred during the

⁹ In this regard it should be noted that there is an incentive for TNSPs to reduce its opex (and so earn an incentive) and to increase capex as it is capex which provides the profits to the business.

current period that might lead to supporting an increase or decrease in opex incurred.

However, as the current opex reflects a high degree of stability over the period, there would appear to be no major step change in the current period that requires an adjustment in the opex for the next period.

6.3 Step changes

ElectraNet advises that there have been some step changes which will modify the benchmark opex, including some that warrant removal from the benchmark and to be re-added separately to the opex allowance. These are:-

- Routine maintenance is now addressed on a preventative basis
- Maintenance is addressed on a project basis
- ElectraNet proposes self insurance
- Land tax is added
- Skills shortage (training cost)
- Generator testing cost
- Revenue reset cost
- Asset growth
- Wages growth
- Network support

It is intriguing that ElectraNet considers that certain opex allowances need to be excised from benchmark performance and re-added (and in a larger amount). This appears to be defeating the entire object of benchmark performance and it adds a concern that elements might be excised for small amounts and added separately as a much larger amount. It provides a mechanism for “cherry picking” poorly performing elements but retaining the attractive elements.

Notwithstanding this observation, the whole purpose of benchmarking is to develop a holistic view, rather than one developed from a bottom up approach. ECCSA has no specific view as to the costs attributed to the elements that comprise the opex amount, but rather that it is the entire amount, addressing all of the aspects encompassed in the opex amount, that should be benchmarked.

Addressing each of these separately, ECCSA sees that most do not constitute a step change

Routine maintenance is now addressed on a preventative basis

Preventative maintenance is not new In its application in 2002 (page 8.7)

ElectraNet noted:-

“[A] study also concluded that increased maintenance, monitoring, asset refurbishment and replacement and investment in additional training/selection procedures to improve field skills could reverse the increasing trend of network outages. As a result, ElectraNet SA has developed an asset management plan focussed on long-term reliability and safety in line with our understanding of reasonable customer expectations.”

It is clear that ElectraNet implemented its new approach to maintenance prior to the last reset in 2002. Therefore, this element is not a step change in opex, as it was implemented before the start of the current period.

Maintenance is addressed on a project basis

This is not a step change but a management approach to excuting a requirement that has always been a significant element of opex. This is a refinement only of the program put in place at the start of the current period.

ElectraNet proposes self insurance

Self insurance is a management decision. If self insurance costs more than than traditional insurance, then it would not be implemented. The insurance requirements have not altered, so there is no step change. In the 2002 application ElectraNet stated (page 8.7):-

“Recently there have been indications of a “hardening” of the insurance market, particularly since the HIH collapse and World Trade Centre incident that have impacted on the likely cost to ElectraNet SA of obtaining appropriate insurance cover. Insurance industry experts and commentators have indicated that premiums (if available) could rise more than 50%, with some industries already experiencing increases greater than 100%”

The comment on the “hardening of the market” in 2002 was more appropriate then than now (considering the HIH collapse and September 11), and insurance premiums have fallen since the high premium days of 2002. ElectraNet was granted higher opex in 2002 to accommodate this premium, yet now, it is claiming it as an issue again. This is not a step change.

Land tax is added

The imposition since the 2002 reset of land tax would appear prima facie to be a step change, although ECCSA considers this matter should be investigated thoroughly.

Skills shortage (training cost)

ECCSA agrees with ElectraNet that training of staff to meet needs is a sensible precaution. In principle, ECCSA would support a modest increase in opex to

allow for skills development over and above the normal requirement all businesses have to implement to meet the skills needed; thus ElectraNet must identify the specific needs for such an additional program, and that current training arrangements will not provide the skills needed.

This substantiation would identify the extent of the skills in short supply and the needs of ElectraNet (bearing in mind the extent of outsourcing already undertaken by ElectraNet) including identifying the skills that need to be developed (these must be demonstrably related to the skills in short supply), numbers of staff and the types of training to be related to the skills needed, for costs to be clearly identified, that it be monitored by AER to ensure that it progresses as planned, and to report on its outcomes.

Generator testing cost

If this is a step change caused subsequent to 2002, then it is legitimate to include the costs associated for it to be implemented in the opex allowance

Revenue reset cost

Revenue resets are part of a regulated businesses' activities. If a business seeks to expend more on a revenue reset in the expectation it will receive increased revenue then this is a decision for the business. This is not a step change

Asset growth

The only cause of increased opex due to asset growth is if there is an increase in network coverage. Section 7.6 refers to this issue, and identifies that replacement of assets should reduce opex (newer assets require less opex), and augmentation of existing assets for larger assets should equal or reduce opex (newer assets require less opex).

It is only where a new asset is incorporated where there was no asset before or providing the same service, does opex increase with assets. ElectraNet should identify those new assets where no opex has previously been incurred to warrant a step change.

Wages growth

This is addressed in section 6.4 below. Wages have consistently been exceeding CPI for more than a decade, and a rate similar to that currently occurring. This is not a step change, although it might provide some basis for increasing controllable opex in line with the premium above CPI.

Network support

ElectraNet already provides network support in its opex. This current level of network support is expected to continue.

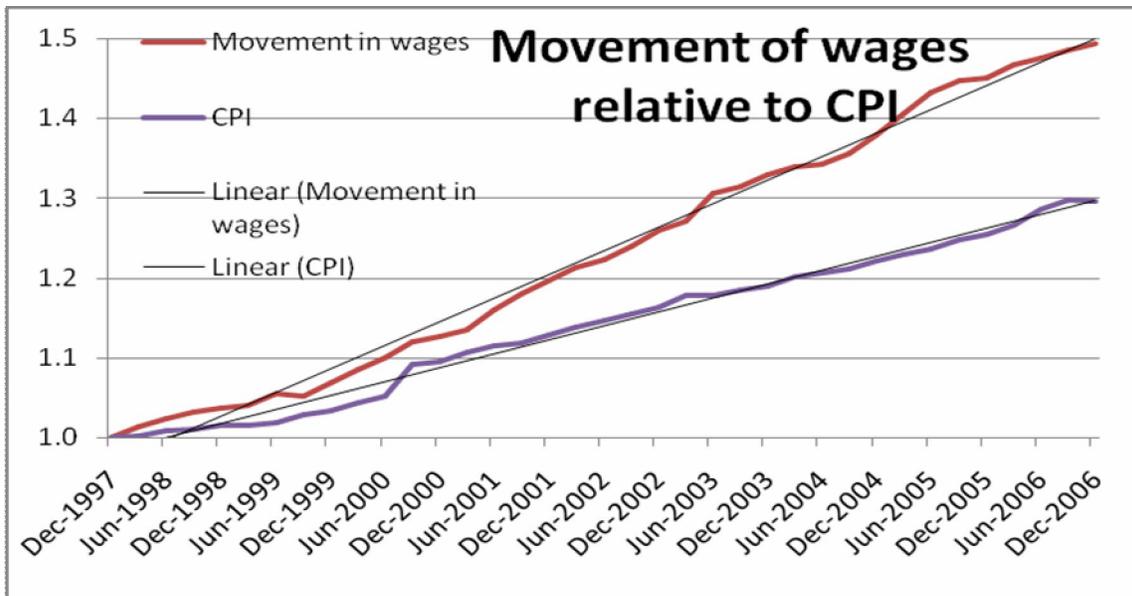
ElectraNet notes that additional network support might be required in the future, depending on the results of any regulatory test applied to augmentation needs. ElectraNet has requested and will be granted capex to accommodate network augmentations. If the RT identifies that a network solution is higher cost than network support, then ElectraNet will be able to accommodate the cost of the network support from its capex allowance.

Not to do this allows ElectraNet to double dip – being paid for capex not now required and to be paid separately for network support.

6.4 Wages growth

In its application ElectraNet refers extensively to the likely increase in wages over the next period. It provides its own assessments as well as those of some consultants. The consultants opine that wages are likely to increase faster than CPI over the next period.

The ECCSA has also carried out assessments on wages growth and concurs that wages are likely to continue to outperform the CPI. However, as is noted in section 7.2 below, this observation is not just about to start, but as the following chart shows (using data from the RBA statistics tables G2 and G6) that this outperformance is not new and it has certainly applied since before the last reset in 2002.



Source: Derived by ECCSA from RBA statistics

As can be seen, the trend of wages out performing CPI has been in train for a decade. Therefore, the observations made by ElectraNet and its consultants are not new and have been known by ElectraNet since before the last reset.

Thus an assumption of wage growth in excess of CPI cannot be claimed as the basis of a step change as the current opex certainly included for this higher growth.

Further it must also be accepted that it is inappropriate to base an expectation of wages growth on one or two types of employees. ElectraNet and its contractors have a wide range of employees in addition to those whose wages have grown faster than the average.

6.5 Steps changes in opex to be identified

The ECCSA members are also employers of wages staff and contractors in the SA market. They are aware that changes in the environment do occur and that these can impact on the costs incurred by employing staff and so on opex.

As a result ECCSA is of the view that the current average level of opex of \$45m pa (real and excluding the estimated values for years 06/07 and 07/08) should be used as the benchmark for future opex. It is noted that ElectraNet's opex displays a step change in 2006 and that the amounts for 2007 (which should be near accurate) and for 2008 are estimates. ECCSA notes that ElectraNet sees that the 2006 opex (just after the step change) is used as the benchmark.

The first issue for the AER is to establish a benchmark opex. The ECCSA sees that opex for 2006 could be interpreted as being inflated for the purposes of setting a benchmark. ECCSA suggests that in order to eliminate any appearance of a single year being influenced by unusual circumstances, that an average opex for the preceding five full years be used as a starting point. This eliminates using the final year estimate of opex (which could prove to be inaccurate at a later stage). In fact, the opex incurred for the period back for seven years shows a remarkable stability at about \$40m pa (real), with the only anomalies being the 2006 and possibly the 2007 figures.

Once accepted, ElectraNet must identify and cost only the step changes that have occurred since 2002 and provide these to the AER. In section 6.3 above ECCSA has commented on the step changes implicit in the ElectraNet application. The fact that the opex has been maintained at a consistent level indicates that most, if not all step changes that have occurred have been previously accommodated within the base amount. This approach is consistent with the approach used by ESCoV in establishing the opex allowance for the Victorian distribution businesses.

It must be noted that a step change based on wage movements is unlikely to have occurred, as the wages trend for the past decade have maintained consistency with CPI movements, and this trend is noted and confirmed by the ElectraNet consultants. The import of this is that ElectraNet should not be entitled to any step change based on wage movements alone, or at most, the step change related only to the premium of wages above CPI.

6.6 External benchmarking

ElectraNet provides no justification for its proposed increases in opex by use of external benchmarking.

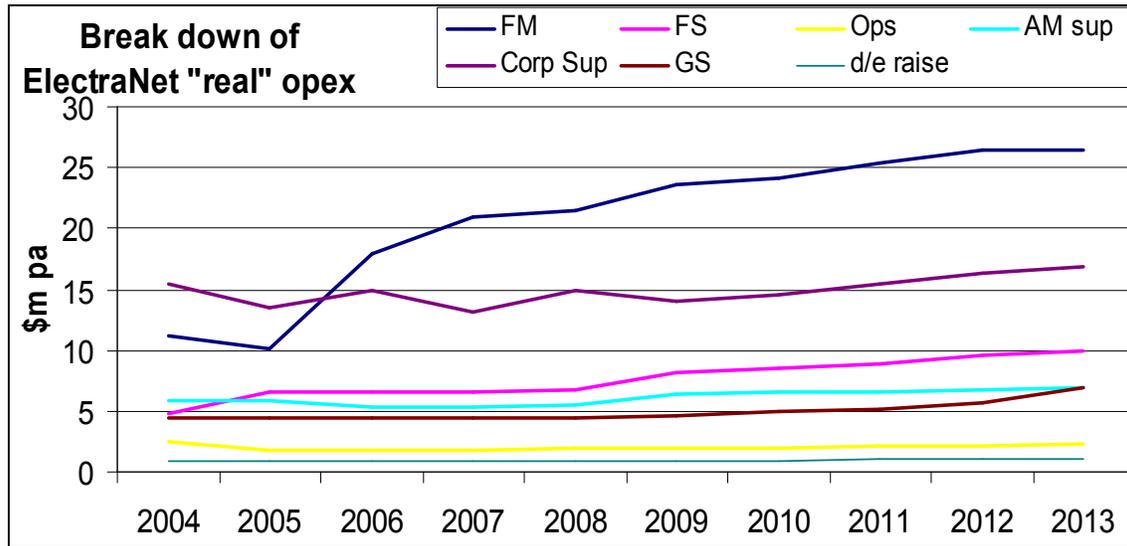
In its application to the AER in 2007 for a reset, SP Ausnet (SPA) provides some basic benchmarking of its activities compared to those of other similar entities. It is worth noting that just as SPA alleges its assets are of significant age, so do Transend, ElectraNet and TransGrid, who have all at times advised the regulator that theirs is the oldest network in the NEM.

However, the comparisons provided by SPA do not show ElectraNet performance in a good light. In two (opex/RAB and opex/GWh) of the four benchmarks used ElectraNet is the highest cost performer relative to its four Australian equivalents; in one (opex /Km line) it is noted as best and in the last (opex/MVA of TX installed) it is mid merit.

What is alarming in these comparisons, is that they refer to ElectraNet performance in the three years 02/03, 03/04 and 04/05, and thus all relate to performance before the large step increase in ElectraNet's opex for year 05/06. When the last year performance is included, the ElectraNet comparative performance would be seen as abysmal, based on these benchmarks.

6.7 Breakdown comparisons

When examined in detail, it becomes clear where ElectraNet seeks to increase its "real" opex forecasts.



Source: ElectraNet tables 6.13 and 11.1

Field maintenance increases by 150% over the period, field support increases by 75%, grid support by 40%, asset management support and corporate support increase by 15-20%, and the other cost categories remain relatively static. If real wages growth of 3% is assumed, then this would support the increases in all categories except field maintenance, field support and grid support.

The large increase in field maintenance between 04/05 and 05/06 needs to be clearly explained, as this is the primary cause of increases, and there is no explanation of any step changes causing this outcome.

The fact that this rise continues to increase after 05/06, again without any step changes applying is of great concern to ECCSA.

6.8 Concluding observations on opex

ElectraNet has carried out a “bottom up” development of its opex. There is no reality test on the outcome of this process, and to be fair, ElectraNet would prefer its opex forecast to be accepted without change.

ECCSA can understand the process that ElectraNet has used, but the outcomes from the ElectraNet process have to be assessed in keeping with the ability of the market’s (in this case consumers) ability to pay.

It is the role of the AER to provide a reality check on the claims by ElectraNet, and to assess whether the increases are reasonable. However, ECCSA does not accept that ElectraNet’s claims are supportable or robust.

ECCSA is of the view that historic opex spanning some six years up to year 05/06 shows considerable stability. Further, there is no basis to support a claim of a step change of an increase over 25% from year 04/05 to year 05/06. The opex costs quoted by ElectraNet for years 06/07 and 07/08 are estimates only.

ECCSA considers that a benchmark opex based on the five years of actual opex to 05/06 is a reasonable starting point. To provide opex for the next period should be based on this starting point and allowances added for identifiable step changes that have actually occurred since 2002 when the last assessment was made. This approach has regulatory precedent and is in keeping with the purpose of the EBSS, which is to drive opex to the efficient level.

7. ElectraNet Capex

ElectraNet has sought capex of \$778m over the next five years. In addition it has flagged another \$950m for contingent projects. This is compared to a forecast closing RAB of \$1,117m as at June 2008.

ElectraNet comments on page 72 of its proposal that:-

The key cost drivers contributing to higher levels of forecast capital expenditure areas follows:

- Growth in demand and the new ETC standards are driving the need for significant transmission investment to meet mandated reliability standards. For example, the required reinforcement of the Adelaide CBD is expected to cost approximately \$138 million over the forthcoming regulatory period;
- An increasing number of assets nearing the end of their useful lives, which requires increased levels of asset replacement expenditure;
- Additional investment required to address concerns about the physical security of critical infrastructure;
- Real wages growth caused by a marked strengthening in employment demand in the mining, construction and manufacturing sectors in South Australia; and
- The price of transmission equipment currently rising well above inflation due to strong global demand.”

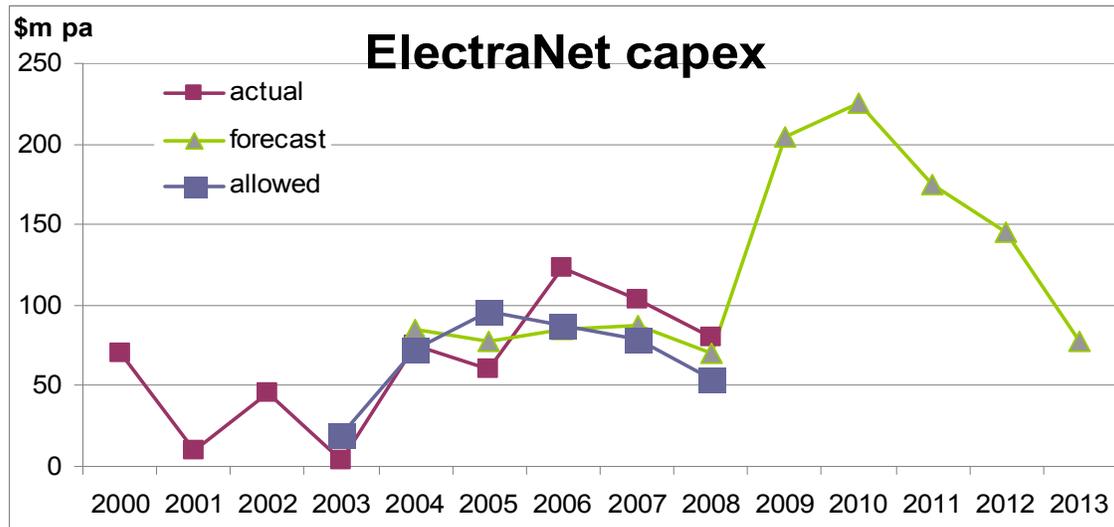
7.1 An overview of proposed capex

The amount sought for augmentations (some \$385m) is similar to that approved in 2002 by the ACCC for “construction” works (\$340m in \$06/07) for the current period, and reflects the work suggested by ESIPC as being required. The balance of the funds relate to replacement costs (up from \$70m to \$224m) and an additional \$152m for a grab bag of expenditure, including easement acquisition, new buildings, security and compliance, IT and inventories. None of these items were identified as requiring new capex in the past application.

In the current period, ElectraNet will have spent the capex approved in the last period, and might even overshoot the allowance. As there was in 2002, there is a residual concern that ElectraNet will not be able to match its forecast capex for the next period. In fact, the actual expenditure in the early years was less than forecast but over expenditure in the later years adjusts for this.

Capex in the South Australian system is summarized as follows, using data from both ElectraNet and ACCC documents. The expected change in consumption is

discussed in section 2 above but essentially, consumption changes but marginally over the five year period notwithstanding a proposed massive capital expenditure program.



Source: Derived by ECCSA from ACCC and ElectraNet documents¹⁰

This amount of capex forecast is massive in relation to the past capex program, projected consumption and the size of the network.

ElectraNet comments that there a number of reasons contributing to this increase. These issues are address in more detail below.

In section 2 above it is discussed that perhaps the “augmentation” capital budget is not unreasonable when compared to the forecasts by ESIPC and the historic capital expenditure over the current period

However, this “augmentation capex” has been inflated too by many other matters which are discussed below.

7.2 Inflation expectation - labour

Over the past decade, labour rates have risen by an average of 5.3% pa¹¹. Since 2002, when the last reset was performed, wages have risen by 5.0%. The implication of this data is that wages of late have risen by less than earlier in the decade. It is of concern that ElectraNet implies that wages will massively

¹⁰ ECCSA notes that this graph is different to that provided at the public forum. ECCSA apologizes for an error in the graph used at the public forum

¹¹ RBA Table G6

increase above this historical rate regime, as the same pressures have been present for 2005 and 2006, yet the actual wages have not risen excessively.

ABS statistics indicate that despite the CPI generally staying within the 2-3% band width set by the Reserve Bank, labour costs have tended to increase at a greater rate than CPI. The cost of average weekly earnings over the past three years has run at 4.3% pa¹², compared to the CPI which has run at 2.5% pa¹³.

It is noted that ElectraNet has elected to use an average of 5.9 as its wages escalator for the next period. This is a greater amount than the historic 10 year average of 5.3% by some 10%. It is a moot point whether this wage increase is sustainable despite the fact that ElectraNet has sought advice from a consultant. ECCSA would be loath to accept the advice from Evans and Peck at face value, and recommends that AER seek its own advice.

This differential, although ostensibly real, does little to justify the massive increased cost of the capex program.

7.3 Inflation expectation - materials

ElectraNet provides a view that it needs to accommodate increases in materials for the purposes of forecasting costs based on ABS statistics, predominantly the producer price indices. This is a reasonable approach but it is the selection of the index and the weighting each is granted that makes the output realistic. ElectraNet consultants (Evans and Peck) were requested to derive these indices and weightings.

Without more data the ECCSA cannot comment on the weightings used but does observe that the selection of the index must be relevant to the materials used. In this regard, ECCSA does not necessarily agree that inflation indices for work undertaken is best related to producer price indices of general construction, copper and steel.

Reference to the RBA statistical table G3 shows that construction material output prices have risen by 28.9% (5.8% pa) over the period for 2002. These prices show that materials such as concrete, steel and wiring have grown faster than CPI by about 3% pa.

However, in counterpoint to these rises, it must also be noted that the Australian currency has risen significantly against most other currencies since the last reset,

¹² RBA table G6

¹³ RBA table G2

and this has had a marked impact on the costs of materials imported. The following table is based on RBA data.

\$A buys	USD	TWI	EUR	JPY	GBP
average of first six months of 2002	0.5347	51.8740	0.5954	69.2730	0.3701
average of first six months of 2007	0.8064	65.9199	0.6067	96.6713	0.4095
% increase in \$A	51%	27%	2%	40%	11%

Source: Derived by EUCV from RBA data

The table indicates that the buying power of Australian businesses for overseas goods has increased dramatically since the last reset. Input from ECCSA and MEU members provides an observation that as their products have become less internationally competitive with the rising \$A, so have imports used by them and ElectraNet have reduced in price when purchased.

There is a view that the \$A will remain high (or even rise further) as a result of relatively higher interest rates in Australia. When the impact of this is compounded with the expected continuing high exports of resources (for which when there is high demand, has historically driven the \$A higher) there is an expectation that the current levels of the \$A will remain or even increase. Thus there is an expectation that for a considerable share (if not all) of the next reset period there will be a continuing high purchasing power of the \$A.

Information from other sources has indicated that costs for equipment generally have remained within the bounds of CPI, except perhaps for the supply of transformers. MEU members have advised that the supply of transformers from China have the same high quality as those from the USA, UK and Europe but at a considerably lower cost.

Thus there may be some validity in ElectraNet claims that materials costs have risen, but certainly not by the amounts implied by the high capex program.

7.4 Inflation expectation – land

ElectraNet bases the growth in capex related to land and easement acquisition on the simple average of residential, rural and commercial land values. ECCSA would point out that using a simple average of these three, biases the outcome. In practice the land impacted by ElectraNet is much more related to rural land than urban land, and residential and commercial values are both related to urban land.

7.5 Inflation expectation – summary

There is little doubt that costs for constructing facilities needed by ElectraNet have increased in cost faster than CPI. It is sound business that ElectraNet has built into its capital program allowances for inflation which might exceed CPI.

However, it must be accepted that costs for the capital program will have risen over the current period by CPI plus perhaps 3% per annum at most, averaging a “real increase over the period of 7-8%. The data provided by ElectraNet substantiates the ElectraNet approach to continue including such inflationary premiums into the next period. The ECCSA points out that there has been no step change in this as past costs have risen under the same premium as ElectraNet is forecasting. Implicitly ElectraNet has not proven that costs will rise above historic increases and therefore there is a relationship between current and future capex.

Thus ElectraNet does not justify any increase in capex due to costs rising faster than in the current period and therefore the 100% increase in the capex program cannot be attributed at all to rising costs for material and labour.

7.6 The relationship between capex and opex

As noted above in section 5.3, 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, SPA proposes to increase its opex from current levels.

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-relation between capex and opex as far as the ElectraNet application is concerned. It is a fundamental matter for business that much of its capex causes a reduction in opex. The other reason for capex is to match increasing demand for products.

ElectraNet has stated that the capex has increased in part due to higher prices. If this is the case than 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 5.1 above it is pointed out that there is an economic driver for TNSPs 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.

7.7 Views on the specific capex claimed

In the absence of a clear appreciation of whether there is a case for replacement of existing assets, **the ECCSA must rely on the AER and its consultants to identify the commercial logic for undertaking the capex replacement program proposed by ElectraNet. The AER must ensure that its consultants are fully aware of the incentive for ElectraNet to invest capital rather than continue with opex.**

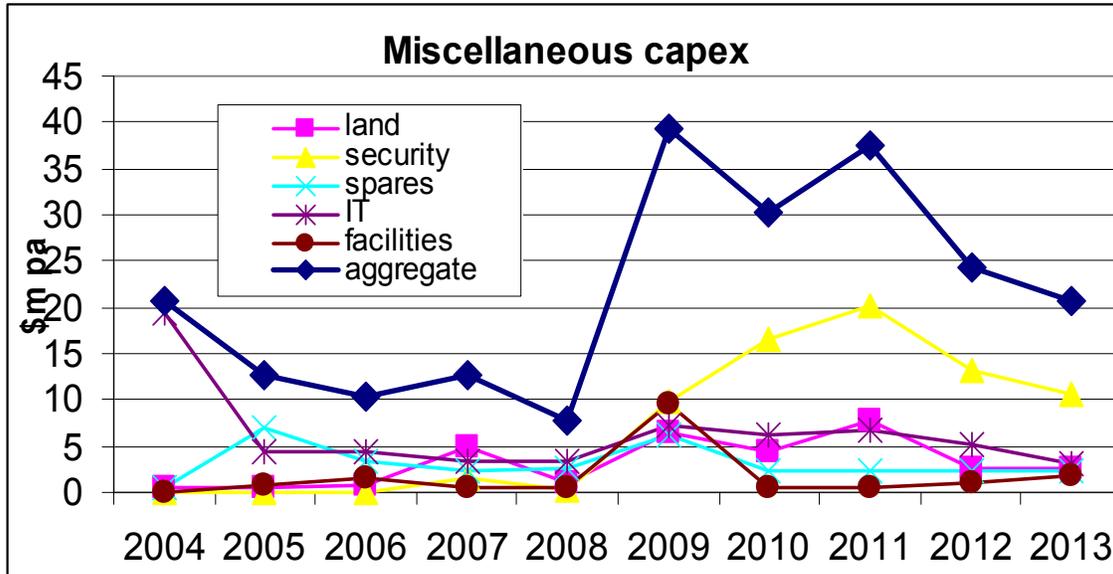
ECCSA notes that ElectraNet has commissioned a number of consultants' reviews and advice regarding its assets and capex program, but it must be accepted that, as did the AEMC during discussions in developing the new Rules for Chapter 6A, a consultant employed by the TNSP cannot be accepted to be a fully independent assessor of the status of a TNSP's assets. This view has an added impact if it is recognised that there is a commercial driver to replace assets (ie increasing the RAB) as it is this aspect which provides the profits sought by the TNSP. Accordingly the AER should undertake its own objective assessment.

ElectraNet has averred that its assets are ageing and many need replacement. The EUCV requests that the AER examine the capex claim in detail with reference to the impact on the average asset age by the recent and forecast levels of expenditure. This is another method for ascertaining the reasonableness of the capex claim.

In addition to the augmentation and connection capex and the replacement capex, ElectraNet has sought to increase its approved capex budget by the addition of some strategic land/easements acquisitions (\$23.9m), security/compliance (\$70.4m), inventory and spares (\$15.7m), business IT (\$28.8m) and building/facilities (\$13.3m), totaling some \$152m pa.

In the current period, ElectraNet claimed none of these costs and the ACCC made no allowance. In context, this amount is equal nearly half the budget for the current period.

When seen in context, the capex for miscellaneous items shows a massive jump of some \$30m in the first year of the new period.



Source: ElectraNet proposal table 5.11

In particular, the IT budget and the security budget both demonstrate significant step increases in the new period. ElectraNet does not state what the step increases are which justify these significant changes, other than to point out that it has changed its depreciation approach for electronic equipment. As noted in section 5 above, ECCSA sees this change in depreciation will have a marked and immediate impact on the costs incurred for this element of the ElectraNet business.

It should be noted that the same impact will apply to the network capex in relation to electronic equipment used in the network. ECCSA sees that this approach to depreciation by ElectraNet is inappropriate and only results in increased costs to consumers.

7.8 Concluding observations of capex

ElectraNet has demonstrated that its costs for future capex have not been impacted by a step change caused by increased inflation on labour and materials.

ElectraNet has made a quantum increase in IT and security capex that is not justified by any step change in environment.

ElectraNet has stated that \$138m of the capex is the result of a step change in levels of security.

The amount of capex stated as required for augmentations and connections is not supported by any significant increases in consumption or demand, and the amount of capex used in the current period for augmentations and connections was effectively matched by a static level of peak demand and modest consumption increase.

ElectraNet has significantly increased its capex for augmentations and connections based on ESIPC forecasts, yet these forecasts do not reflect any significant increase in demand or consumption above current levels.

ElectraNet has not identified where the network coverage has increased (which would result in increased opex) and where the augmentations are effectively replacements of existing assets with larger assets and opex would be expected to reduce as newer but larger assets are replacing older and smaller assets.

ElectraNet has increased its capex program for replacements yet none of these replacements has resulted in a reduction of opex, which would be expected as a new asset would require significantly less opex than an asset aged 40+ years.

8. ElectraNet Efficiency gain

An opex incentive scheme (EBSS) is designed fundamentally to provide a driver for a regulated business to achieve the level of efficient opex. In the varying environment that a regulated business operates in it is a fundamental matter that this opex be referred to a benchmark(s) which can demonstrate that efficient opex has been achieved.

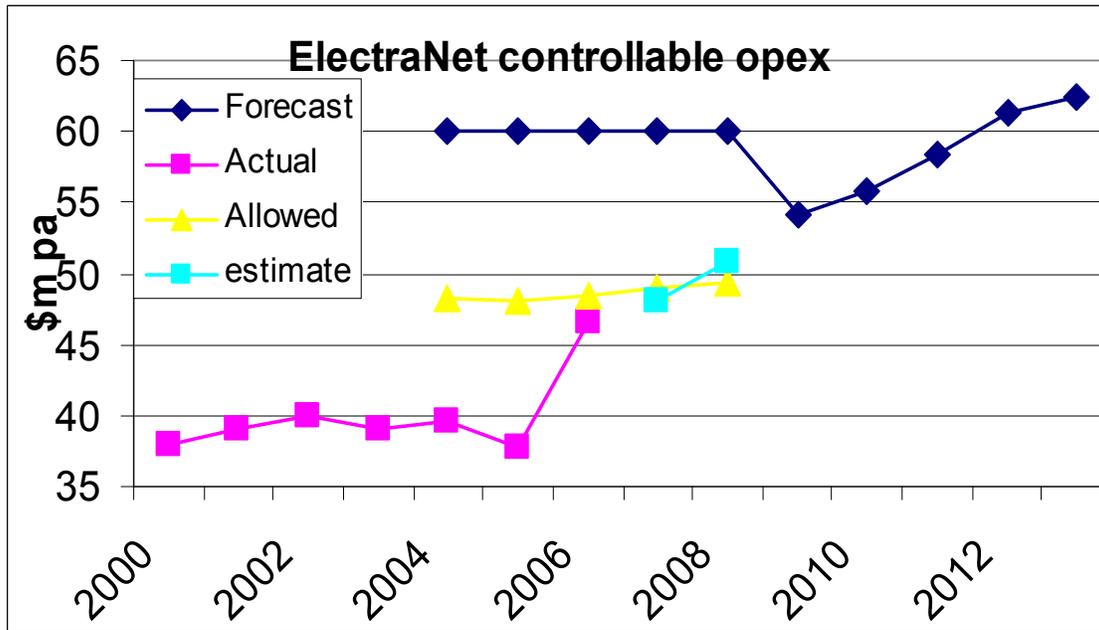
ElectraNet has determined that it achieved optimum opex efficiency in year 2005/06, and uses this as the basis for developing its forecast needs of opex. The ECCSA totally rejects the concept that a single year opex can be used as the “efficient” basis for opex, and believes that a much more rigorous approach to setting benchmark opex has to be found. See comments in section 6 above.

The ECCSA is supportive of an opex incentive scheme to encourage regulated businesses to reduce their costs, yet has real concerns that the EBSS developed by the AER will achieve this outcome. The benefit of an EBSS is that ElectraNet can reduce the costs of providing the service, and by sharing the savings with ElectraNet, consumers will be better off in the long term.

There are two caveats to this in-principle support

1. The savings should be the outcome of actions by ElectraNet and not just because it was able to convince the regulator at the last reset to give a comfortable allowance, and
2. The savings achieved will continue to be shared for a period into the future.

Assuming that opex for 07/08 year is as forecast ElectraNet advises that there was an underrun in the opex allowances granted in 2002, by an average of some \$17.4m, about 7% of the opex allowance granted by the ACCC in 2002. The following chart is the same as that developed for section 6 above.



Source: Derived by ECCSA from ACCC decisions, ElectraNet proposal

Historical actual opex has always trended below allowed opex, and it is only in the forecast for 07/08 that ElectraNet suggests that it might exceed allowed opex. The clear implication is that the regulator has consistently over provided for opex; ElectraNet has benefitted from this and been allowed to retain all of the savings from the allowed amounts being over stated. [As this is a typical trend amongst all regulated businesses, it is expected that regulators would now be alert to this approach.]

The fact that the actual opex has never even approached the allowed level gives rise to a very real concern that the bulk of the opex under run since 1998 has been the result of regulator “gaming” rather than ElectraNet causing real savings from their own actions.

The ECCSA does not support providing ElectraNet a benefit which is unjustifiable and contributes to an incentive to overstate opex claims by excessive amounts.

With this real concern in mind, (as demonstrated empirically above) it is suggested that the AER seeks detailed advice from ElectraNet supporting that savings really have been achieved by direct operational actions of ElectraNet. ElectraNet must be required to provide details of specific actions they have taken, and the resultant cost savings that resulted before any sharing of this opex underrun is permitted, as from our calculations ElectraNet has already benefitted by over \$17m as a result of this underrun.

As ElectraNet opex has shown a real rise for years 3 and 4 of the current period, ElectraNet should be required to provide substantiation as to why this occurred. An apparent reason might be that this increase coincided with the increase in capex, yet as much of the capex was related to augmentation by replacement of assets (ie that the transmission network has not been extended in terms of building assets where no assets were previously located) it is difficult to demonstrate that this additional capex would have caused such a large increase in opex.

Another cause of increased opex is greater need for maintenance to keep ageing assets operating well, yet the dramatic increase in opex between year 04/05 and the next year puts the lie to this reason.

ECCSA remains unconvinced that the AER has developed an EBSS that drives the intended outcome. Additionally the ECCSA sees that ElectraNet has followed the same pattern as other regulated businesses, in that early years of opex are low, with the later years approaching the regulated allowed opex. Such an approach allows the regulated businesses to claim that early year opex levels are unsustainable and retain all of the benefits of having later year opex at a high level which in turn sustains the claim for increased opex in the next period.

On balance, the ECCSA considers that the EBSS used in the current period has not achieved any benefit for consumers, and therefore no benefit should flow to the next regulatory period.

9. Service standards

On page 112 of its proposal, ElectraNet states:-

“ElectraNet’s proposed incentive scheme involves:

- taking into account the major risk of extended outages associated with the regulatory obligation to operate long radial lines in rural and remote South Australia as provided for under clause 6A.7.4 (b)(4) of the Rules;
- setting parameter values for customer outage related parameters based on historical data over the longest available representative period to ensure that the impact of long return period events is included in the target value as provided for under clause 2.5(h) 2.5(j)(1) of the scheme; and
- adjusting the event frequency parameter values for significant forecast step changes in load and other characteristics that have a material impact on performance such as the impact of load increases on the radial Playford – Pimba 132 kV line and the new Kanmantoo and Middleback connection points.”

On page 115 ElectraNet goes on to state:-

“ElectraNet is operating at or near ‘best practice’ levels for a network of its type. There are very limited opportunities for further improvement.”

It goes on to state that because of this it seeks a service incentive program to be biased towards maintaining the current levels rather than incentivising further improvements. While ECCSA agrees to some extent with this notion, it does not agree with the corollary that ElectraNet proposes

“...the design of the incentive scheme [should] reflect the asymmetry between the higher potential for service performance to deteriorate and the lesser potential for further service improvements.”

ElectraNet proposes to use the average performance of the past five years to set the performance target, and then to have an asymmetrical arrangement set about these figures, protecting ElectraNet downside and increasing its upside potential. Although not stated, it would appear that ElectraNet accepts the AER guideline for 1% of revenue to be at risk for achieving service performance.

ElectraNet proposes that its performance targets should be:

Table 10.1: Proposed values, weightings and other scheme elements.

Parameter	Transmission Circuit Availability			Loss of Supply Event Frequency		Average Outage
	Transmission Circuit Availability (%)	Critical Circuit Availability Peak (%)	Critical Circuit Availability Non Peak (%)	Events > x System Minutes	Events > y System Minutes	Duration (minutes)
Performance target	99.47	99.75	99.94	5	1	84
Cap (upper limit)	99.75	99.80	99.97	3	0	39
Collar (lower limit)	98.56	99.53	99.90	6	2	147
Weighting	0.3	0.2	0	0.1	0.2	0.2

Notes: x = 0.2 and y = 1.0

Critical circuits are the Para to Tailern Bend, Tailern Bend to South East and South East to Heywood 275 kV double circuit transmission lines

Peak is defined as 8am to 8pm Monday to Friday

Non Peak is defined as all other times

Whilst ECCSA accepts the proposed targets as the basis for a performance incentive scheme, it does not accept the asymmetry proposed by ElectraNet. There are two reasons for this.

1. ElectraNet has set its targets such that it is more likely to achieve the target performance than not based on the data provided in the SAHA report (proposal appendix W). Analysis of the historic performance to date indicates that there are more “success” points than not
2. Whilst performance to date has been very good, an incentive scheme is designed to operate on two fronts – one is to encourage out performance and the other is to penalize poor performance.

The ECCSA considers that there is a link between the previous targets and the proposed performance scheme. The AER should assess the proposed scheme and identify if ElectraNet would have earned a bonus over the past five years based on the service standards proposed. If this would occur, then the targets are set too low.

Subject to the analysis by AER, ECCSA accepts that the ElectraNet proposal, providing that the penalty/bonus arrangements are made symmetrical.

10. Pricing Methodology

In the recent decision underpinning Chapter 6A of the NER, the AEMC has accepted the principle that transmission pricing is more a matter for users of the transmission network than for the TNSPs which recover their revenue regardless of the pricing mechanism used.

Pricing was not previously the province of regulators of TNSPs, but the changes to the NER (chapter 6A) now requires the AER to ensure that the prices developed by TNSPs are based on sound economic principles. To this end, the AER is developing guidelines for TNSPs to use in preparing a methodology for price setting.

10.1 A shared network: the underlying principles

As consumers are the prime providers of funds to support the transmission 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 transmission pricing as an essential element of the AER regulatory reviews of TNSPs. 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 transmission 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 transmission companies have little incentive to make appropriate allocational decisions about their revenue. Their objective is maximization of revenue. This does not mean that they have not attempted to allocate costs equitably, but that they have an incentive not to devote extensive time and effort into setting prices which are based on sound economic principles.

10.2 The ElectraNet Approach

In its proposal, ElectraNet has provided a proposed pricing methodology. Essentially this is a restatement of current practices, and does not necessarily reflect the Chapter 6A requirements. A derogation permits ElectraNet (and SP Ausnet/VENCorp) the right not to follow the new guidelines.

The AER is preparing a set of guidelines to enable TNSPs to provide pricing which meets the Chapter 6A requirements. This should be available shortly. ElectraNet has stated that its preference is to use the new guidelines if this is feasible bearing in mind timing issues.

The ECCSA supports this approach and as a result has not commented on the pricing proposal provided by ElectraNet, but will do so after the AER guidelines are released for use by TNSPs.

11. Conclusion

ElectraNet has made very substantial ambit claims in capex and opex in its application. It has also sought to ramp-up its revenue and profitability by seeking to re-open the WACC and the ACCC-determined easements value.

Many cost claims are questionable and poorly justified. Claims, for example, for early replacement of assets by reducing assets lives or by early retirement of assets must not be accepted. Nor should claims of potential increases in wages inflation, and equipment costs, be accepted without being rigorously tested.

As the highest cost TNSP in the NEM, it is of concern to ECCSA that there is no real evidence, in ElectraNet's application, of any drive to achieve efficiency savings. There appears to be a cost plus culture which is not encouraging for ElectraNet's customers.

Appendix A –

MAJOR ENERGY USERS INC.
THE VOICE OF ENERGY CONSUMERS

**The Securities Market's Analysis of the AEMC's
Determination on Electricity Transmission Revenue**

**By
The Major Energy Users Inc**

January 2007

**This monograph has been prepared for Major Energy Users Inc by Headberry Partners and Bob
Lim & Co.**

The conclusions reached are those of EUCV and the authors.

Before market data on Utilities was available

Prior to 2001, there was no suitable ASX index available to Australian energy regulators to assist in establishing an equity beta for the class of energy transport **Utilities** from which could be calculated a regulated revenue stream (arising from the economic regulation of monopoly network businesses). Because there was no such specific asset class regulators had to interpolate an appropriate equity beta from indices published for other asset classes.

For example, in 2002¹⁴ the ACCC used the following chart of equity betas prepared by the AGSM in order to develop a specific **Utilities** equity beta.

Table 2.2 Average equity beta by industry listed on the ASX

Industry	Average Equity Beta
Property Trusts	0.366
Alcohol and Tobacco	0.420
Food and Household	0.424
Transport	0.463
Diversified Industrials	0.719
Engineering	0.756
Building Materials	0.857
Paper and Packaging	0.953
Developers and Contractors	0.954
Banks and Finance	0.967
Infrastructure and Utilities	0.983
Tourism and Leisure	1.084
Chemicals	1.128
Investment and Financial Services	1.131
Retail	1.269
Mining and Energy	1.305
Insurance	1.394
Other Metals	1.502
Miscellaneous Industrials	1.568
Diversified resources	1.571
Gold	1.678
HealthCare and Bio-Technology	1.899
Media	2.076
Telecommunications	2.772

Source: Australian Graduate School of Management centre for research in finance; risk measurement service

¹⁴ As used in the draft decision for ElectraNet in 2002

Based on the above listing, the ACCC determined that an equity beta of **unity** was appropriate as this was about the same as the equity beta for the index for **Infrastructure and Utilities**. The ACCC has not changed this value for equity beta since that time. Almost all jurisdictional regulators have used an equity beta less than 1.0 in recent decisions, using equity betas as low as 0.8 for electricity utilities (eg ESCoSA on ETSA Utilities although this was revised to 0.9 on appeal) and 0.75 for water Utilities (eg ESCoV).

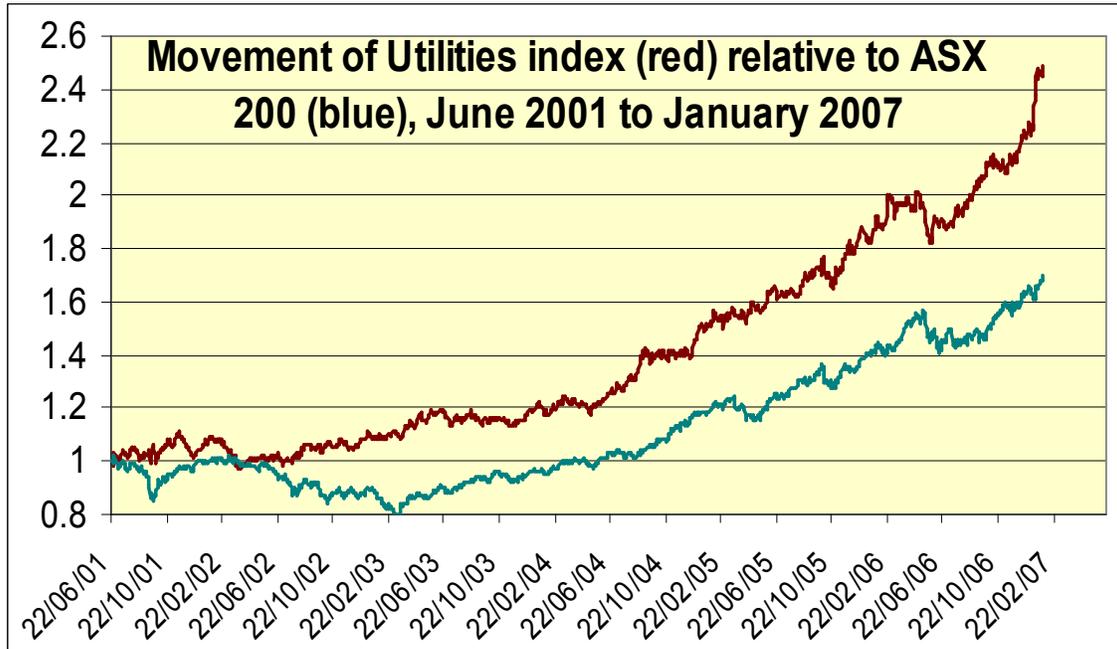
The clear import was that an equity beta of 1.0 was seen by most regulators as being too high.

Market data is now available for Utilities

Since June 2001, the ASX (with Standard and Poors) has published details of an asset class (and an index) purely for **Utilities** coded XUJ. This index comprises the listed gas utilities such as APT, Envestra, Alinta and the listed electricity utilities such as Spark and SP Ausnet. These asset owning companies cover electricity and gas Utilities in Victoria, South Australia, Western Australia, Northern Territory, Queensland and NSW. The movement of this index relative to the ASX 200 is best shown using the starting point of both indices as unity.

Analysis of the financial performance of **Utilities** compared to the market average shows that **Utilities** have significantly out performed the market (as typified by the ASX 200). In fact, the **Utilities** index has increased at a rate 50% more than the rate of increase of the ASX 200 over a period of nearly six years of its existence. Based on five year trend lines the performance of the **Utilities** index implies a market risk premium (MRP) of 11.26% using the equity beta of 1.0 as used by ESCoV, whereas the ASX 200 shows an MRP of 4.5% at an equity beta of 1.36 derived from an asset beta of 1.0 and gearing of 36%¹⁵.

¹⁵ See appendix 1 showing gearing of the "All Ords" as D/E = 36%



Source: CommSec

The ASX200 was used as the surrogate index for the average of the market performance as it comprises the companies comprising the bulk of the ASX's market capitalisation.

The Major Energy Users Inc. (MEU) has previously provided information to the AEMC (during its review of electricity transmission revenue and pricing) that the outworkings of the performance of the **Utilities** index implied a market risk premium (based on an equity beta of 1.0 used by AER and ESCoV) of nearly twice that used by regulators of 6%.

The impact on equity beta

Analysis of the risk and stability performance of the **Utilities** index by the independent assessor CommSec implies an asset beta of 0.3 is typical for this class of assets as measured over the past 5-6 years. This compares well with the observed asset beta for similar utilities operating in other countries, such as the US. The following table 9.5 provided by the ESCoV in its recent decision on electricity distribution companies, demonstrates this clearly.

Table 9.5: Lally (2005) asset beta estimates, with equity beta estimates

Source	Data Period	Number of firms in sample	Electricity Utilities Asset Beta	Electricity Utilities Equity Beta	Gas Asset Beta	Gas Equity Beta	Overall Asset Beta	Overall Equity Beta
Value Line	1999 – 2003	83	0.35	0.88	0.17	0.43	0.29	0.73
Value Line	1994 – 1998	147	0.26	0.65	0.26	0.65	0.26	0.65
Bloomberg	2002 – 2003	93	0.27	0.68	0.20	0.50	0.25	0.63
Alexander	1990 – 1994	35	0.33	0.83	0.22	0.55	0.27	0.68
Ibbotson	1999 – 2003	50	0.12	0.30	0.06	0.15	0.11	0.28
Ibbotson	1993 – 1997	108	0.32	0.80	0.33	0.83	0.32	0.80
S&P	1999 – 2003	80	0.18	0.45	0.19	0.48	0.19	0.48
S&P	1994 – 1998	73	0.19	0.48	0.32	0.80	0.26	0.65
S&P	1989 – 1993	65	0.34	0.85	0.29	0.73	0.32	0.80
Median			0.27	0.68	0.22	0.55	0.26	0.65

Source: Lally (2005, p. 14). The Commission has generated equity betas consistent with 60 per cent gearing.

A continuing view has been that the lower levels of historic equity betas, such as those available from the US market were a result of a “tech boom and bust” in the equities markets resulting from the impact of technology stocks of the late 1990s.

Whilst accepting that this “tech boom and bust” might have impacted assessment of equity betas in the early part of this century, nearly six years of recent market data in Australia and overseas supports that the impact of this “tech boom and bust” might well have been grossly overstated (or at least been quite short lived) as equity betas derived after many years since the “boom and bust” period still maintain the similar levels (see appendix 1) as they were during the period of the “tech boom and bust”.

CommSec has also noted that the current (30 Jan 07) gearing of the **Utilities** sector is 102% (Debt/Equity) which when used with the current (30 Jan 07) asset beta of 0.39, results in an equity beta of 0.79. Previous values of asset beta developed by CommSec were significantly lower than the current 0.39, implying that the current equity beta of 0.79 is on the high side of the average. Attached as appendix 1 is a summary of the ASX sector analysis provided by CommSec on three separate dates, all some 6 months apart.

Much of this information was provided to the AEMC as part of its review of transmission revenue, but it elected not to investigate this issue at all. Without undertaking any of its own assessment, the AEMC determined in the

transmission revenue Rules that transmission companies should be granted a market risk premium of 6% and an equity beta of 1.0, and locked these into the Electricity Rules, preventing any changes being made, although it has required the AER to undertake another review of the CAPM inputs by 2008. **In the meantime all AER reviews must use these AEMC prescribed inputs.**

The AEMC stated that by fixing these inputs in the Rules it created more certainty for transmission companies, and therefore it was likely that increased investment would result. Certainly this would result in more profits for the electricity transmission businesses!

But there was even more from the AEMC

The AEMC also determined that the AER should be more influenced by the claims of the transmission companies for opex and capex to be included in the revenue application and determined that the AER role in overseeing past capex incurred should be prudent and efficient should be minimal.. Again, the AEMC concluded that this would provide an incentive for the transmission companies to invest – it certainly enables the businesses to “gold-plate” investments and make life easier for the businesses!

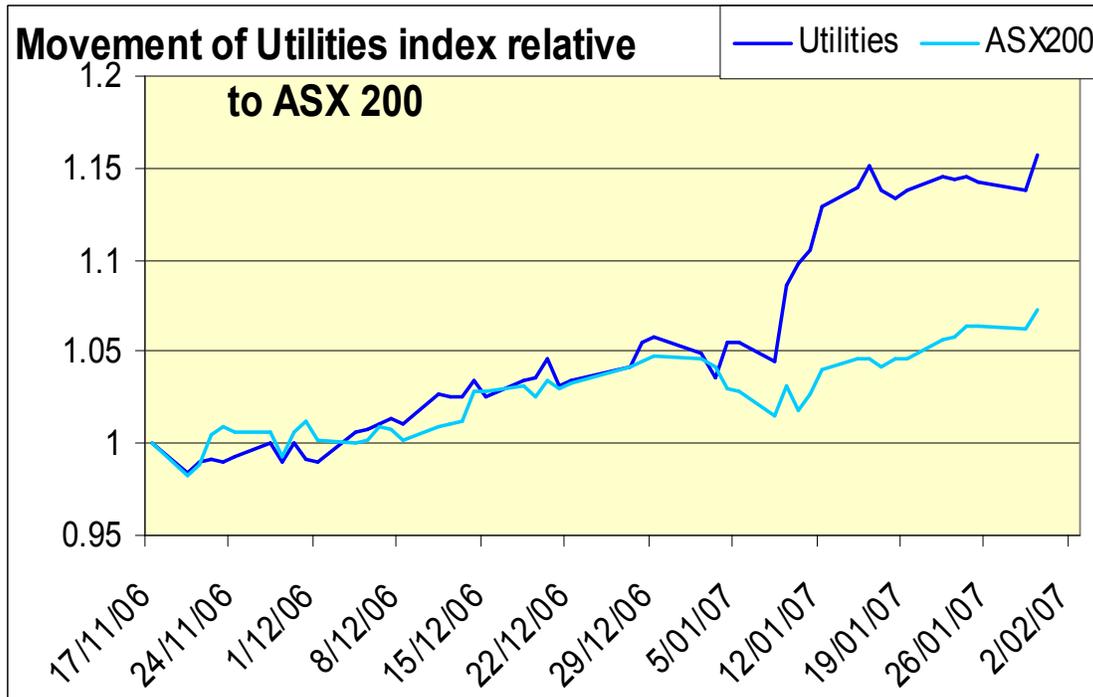
The MEU had pointed out to the AEMC that there had already been significant investment in transmission assets and that transmission companies were in fact not constrained in investing by the regulatory approach, but more by their own inability to manage the investment programs already approved. The MEU requested the AEMC to identify where investment had been constrained, but the AEMC did not undertake any research which might have supported their view.

The MEU had also advised the AEMC that its proposed Rule changes would increase the profitability of transmission companies and not necessarily result in expanding investment. The AEMC ignored this contention.

The AEMC released its final determination and rules on electricity transmission revenue on 17 November 2006 and on transmission pricing on December 21, 2006. Since then, the **Utilities** index has risen so significantly compared to the market average that the release of the AEMC Rule changes and this increase cannot be dissociated from each other.

The following chart shows that the decisions of the AEMC have contributed to a significant increase in the market value of Utilities. Allowing for the time for market analysts to assess the outcome of the AEMC decisions, the chart clearly shows that the market recognises that Santa (in the guise of the AEMC) has delivered an excellent present to Utilities and their investors.

Investors can clearly see that the utilities will be even more profitable businesses (relative to risk) than before. The chart shows a massive outperformance of the Utilities Sector relative to the ASX 200.



Source: CommSec

The chart relates both the Utilities index and the ASX 200 back to unity at 17 November, the day the AEMC released its decision on transmission revenue. On 17 December the AEMC released its decision on transmission pricing. The fact that after an early surge in January as the AEMC decisions were analysed, the spike flattened and the two indices resumed similar but parallel tracking as before.

Whilst the AEMC can state that their decision only relates to electricity transmission, there can be no presumption that this decision will not flow (in whole or part) to all energy transport services of gas transmission and gas and electricity distribution. The earlier efforts by the jurisdictional regulators (ICRC, IPART, ESCoSA and QCA) in reducing equity beta for regulated energy transport businesses and to control any excesses of the regulated energy businesses have come to naught.

It is quite clear that the market has seen the AEMC decision as a Christmas present of the first order.

Appendix 1

Data sourced from Commonwealth Securities Web site								
	ASX code of typical company in sector	Beta			Sector div yield			sector gearing D/E % 30 Jan 07
		27- Feb- 06	23- Aug- 06	30- Jan- 07	27- Feb- 06	23- Aug- 06	30- Jan- 07	
All ords		1.08	1.04	1.02	4.3	4.3	3	36
Consumer discretionary								
Automobiles and components	BOS	1.02	0.86	1.45	6.2	6.2	0.8	
consumer durables and apparel	GUD	1.75	1.39	1.42	5.3	5.2	5.3	44
consumer services	TAH	0.93	1.19	0.96	4.3	3.9	3.3	38
Media	PBL	1.51	1.39	1.03	4.5	4.4	3.9	21
Retailing	HVN	1.18	0.99	0.98	4.6	4.7	3.2	32
Consumer staples								
Food and drug retailing	WOW	0.62	0.64	0.64	3.8	3	3	75
Food beverage and tobacco	LNN	0.58	0.51	0.6	4.3	3.9	3.1	46
Energy		0.96	1.04	1.21	3	2.8	2.8	
Energy Equipment and services	HZN							
Oil and Gas	ORG							
Financials ex property								
Banks	CBA	0.86	0.68	0.82	4.3	4.1	4.4	
Diversified financials - resources	BNB	1.19	1.16	1.17	3.5	3.7	3.6	
Diversified financials - holdings	SOL	1.19	1.16		3.5	3.7		
Insurance	AMP	1.58	1.54	1.44	4.2	4	3	
Property Trusts		1	1.04	1	6.9	6.9	3.8	
Investment trusts	WDC							
management and development	CEQ							
Health Care								
Equipment and services	SHL	1.19	1.09	1.01	2.8	3	2.7	7.2
Pharma & Biotech	SIP	1.81	1.52	1.01	2.3	2.9	2.7	7.2

Energy Consumers Coalition of SA

ECCSA is affiliated with MEU Inc which represents EMRF, EUCV, EUCV, CIF, and A3P
 AER review of SA electricity transmission

Data sourced from Commonwealth Securities Web site								
	ASX code of typical company in sector	Beta			Sector div yield			sector gearing D/E % 30 Jan 07
		27-Feb-06	23-Aug-06	30-Jan-07	27-Feb-06	23-Aug-06	30-Jan-07	
Industrials								
Capital goods	COA	1.11	1.12	1.04	4	4.1	3.6	34
Commercial services and supplies	BXB	1.11	1.19	1.27	4	3.9	3.4	28
Transportation	ADZ	0.9	0.99	0.96	4.7	4.9	3.4	40
Info Tech								
Software and services	CPU	1.82	1.61	1.34	4.6	4.6	3.4	54
hardware and equipment	KYC	1.15	1.02	0.89	4.4	3.9	2.7	0.7
Semiconductors	LGD	1.15	1.02	0.89	0	0	0	58
Materials		1.39	1.15	1.22	3.1	3.2	3.1	
Chemicals	ORI							
Construction materials	ABC							
Containers and packaging	AMC							
Aluminium	AWC							
Diversified metals and mining	BHP							
Gold	NCM							
Precious metals and minerals	ERA							
Steel	BSL							
paper and forest products	PPX							
Telecomms		0.44	0.29	0.37	5.7	6.2	3	15
Diversified	ENG							
Wireless	HTA							
Utilities		0.31	0.23	0.37	5.2	5	4.1	102
Electric	HDF							
gas	ALN							
Multi	SPN							
Unclassified	BQF	1	0.98		6.9	6.9		